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STAFF REPORT: REGULAR CALENDAR

Application No.: **5-15-2097**

Applicant: **Newport Banning Ranch, LLC**

Agent: **Mike Mohler, Brook Street Consulting, etc.**[1]

Project Location: **5100 Block of Pacific Coast Highway, Newport Beach, Orange County**

Project Description: Abandon oil operations and clean and remediate soil; subdivide the 401 acre site into residential, commercial, mixed use, open space, park, and public street lots; grade 2.8 million cu.yds. of soil and construct residential and commercial development including approximately 12 acres of roads, 37 acres of residential with 895 residential units, 45,100 sq.ft. of commercial use, a 75-room resort and a 20-bed hostel; create 5 acres of park, and construct public trails within the 329 acre Natural Open Space Preserve, with oil operations to remain on 15 acres.

Staff Recommendation: Approval with conditions

[1] Complete list of agents on file

STAFF NOTE

The pending application is the latest iteration of a proposal first submitted to the Commission in early 2013 to convert most of a 401-acre site known as Banning Ranch from an active oil field to a mixture of residential and commercial development, with large areas preserved as open space. A previous version of the current proposal for development of this site (CDP application 5-13-032) was heard by the Commission in October 2015. Although the Commission provided some direction, it did not act on the application at that hearing, and the item was continued, tentatively planned to be scheduled for the January 2016 hearing. Because of the impending deadline for Commission action pursuant to the Permit Streamlining Act (PSA) and the need for additional site visits, corrections to mapping and data, and ongoing working meetings, the applicant withdrew application 5-13-032 in December of 2015 and immediately submitted the proposal under a new application (5-15-2097). At the October 2015 hearing, the Commission made several comments and suggestions for a revised project and for staff and the applicant to work together to develop a revised plan, and several Commissioners asked staff to develop a recommendation of approval for a revised project that is consistent with the Coastal Act. In an effort to address changes needed to meet the requirements of the Coastal Act, there have been additional working meetings with the applicant and three comprehensive site visits since the October hearing. Staff and the applicant ultimately agreed on a goal of having the item heard at the May 2016 hearing, but after a staff report was published for that hearing, the applicant requested a postponement in order to respond to the staff recommendation and granted an extension of the PSA deadline for Commission action. The PSA now requires the Commission to make a decision on this application before September 11, 2016 (at the September hearing) unless the applicant chooses to withdraw the application. As always, the applicant has the right to re-apply after the withdrawal, in accordance with Section 13056.1 of the Commission's regulations.

SUMMARY OF STAFF RECOMMENDATION

Banning Ranch is comprised of 401 acres, divided into 4 legal lots, and is the largest and last remaining privately owned lands of its size along the coast in southern California. Banning Ranch is located partly in the City of Newport Beach and partly within unincorporated Orange County, adjacent to the mouth of the Santa Ana River where it meets the Pacific Ocean (**Exhibit 1**). Despite its history of oil development and the presence of isolated areas that are severely degraded, the site as a whole continues to support a remarkable and unique array of sensitive coastal species and habitats, including nesting and foraging habitat for the threatened California Gnatcatcher, a very rare vernal pool watershed that supports the Endangered San Diego fairy shrimp, coastal wetlands, habitat for burrowing owls, and rare purple needlegrass grassland, as well as riparian habitat and coastal marsh lands. Banning Ranch contains a lowlands area consisting of approximately 130 acres of brackish and freshwater marsh habitat and a mesa (coastal terrace) that covers approximately 262 acres consisting of scrub habitats, grasslands, and vernal pools. The many arroyos on the site and marsh lands support rare and sensitive vegetation that provides habitat for many native animals including several rare species. The coastal bluffs and the canyon bluffs along the arroyos support rare and sensitive vegetation communities, such as coastal bluff scrub and California brittle bush scrub, and the Mesas contain native and non-native grasslands that both provide habitat for federally threatened and sensitive bird species

living on the site. Commission technical staff has determined that approximately 219 acres of the property rise to the level of environmentally sensitive habitat areas (ESHAs) (**Exhibit 3**).

Numerous Native American archeological sites are present on Banning Ranch, which attest to the historic and widespread habitation of the site by the Gabrieleno and Juaneno tribes, and in turn, the site's current cultural and historical significance. At the request of the Tribal Chairman of the Gabrieleno Tongva San Gabriel Band of Mission Indians, the state Native American Heritage Commission (NAHC) added the "Banning Ranch Cultural Properties and Landscape" located on the site to the NAHC Sacred Lands File because of its cultural significance. There are 9 distinct tribal entities with ties to the land on the NAHC contact list. To date, the proposed project has the support of 2 tribal entities, while the remaining 7 groups oppose the project or are concerned about the project.

The version of the proposed development considered in this report is the NBR Project Description dated July 10, 2016. In this version of the project, the applicant proposes removal of most of the oil facilities and remediation of oil contaminated soils, grading 2.77 million cubic yards of soil on the site, providing for the continuation of oil and gas production operations on approximately 15 acres, and construction of 895 residential units, a 75-room resort hotel and a 20-bed hostel, 45,100 sq.ft. of retail space, a 5-acre park, a public trail network, and establishment of a 329-acre nature preserve on the property (**Exhibit 2**). The applicant has recently (8/23/16) proposed additional changes to the project to address issues and reduce impacts. However, with only three days until the production deadline, staff was unable to analyze the changes and reflect them in this staff report due to insufficient time for reviewing and updating all the relevant analysis and exhibits.

Given the extent of sensitive habitats and other development constraints on the site (**Exhibit 4**), as well as the large scale of the proposed development and its inconsistency with the Coastal Act, staff had to develop an extensive and complicated set of recommended conditions to accompany the recommended approval of the project. It has been a significant challenge to develop a set of conditions of approval necessary to bring the proposed project into conformance with the Coastal Act while still leaving the applicant with discretion as to how to revise the project to fit within the appropriate development footprints as determined by the identified site constraints.

Commission staff requested the City or County assist in the development of an LCP or a Land Use Plan for the site prior to the submittal of the coastal development permit (CDP) application, however that was not done and the applicant has chosen not to wait for such a process to be completed, but to pursue a permit at this time. Therefore, staff is recommending the development plan authorized through this permit consist of a scaled down development that can be addressed through conditions of approval without a Land Use Plan, and one that avoids all impermissible impacts to ESHA and Wetlands and cultural resources. The projected timeline for build-out of the entire development is at least 10 years. The scale and scope of development exceeds what is typically approved under a single CDP and such a proposal is more suited to a Specific Plan or LCP segment.

In this particular case, some of the major issues that the applicant and staff cannot agree upon are those that, again, are typically addressed through a planning document with community input, including: the circulation element, parks and open space, and in this case, the Sacred Lands designation. In addition, the ecological and cultural resources of the site have yet to be addressed by a number of resource agencies; however, the applicant has chosen to seek Commission approval first, and then go through Federal consultation processes triggered by Army Corps of Engineers (ACOE) review, including review by the US Fish and Wildlife Service (USFWS). The input from USFWS will be particularly important to address the adequacy and size of the vernal pool complex, and the range and size of reserved habitat areas necessary to support the California gnatcatcher and Burrowing Owl, which are protected and sensitive species present on the property.

The ACOE jurisdictional delineation of Waters of the US on the site and subsequent permit consideration would trigger the Section 106 process, which would address the concerns of the Native American community related to the Sacred Lands designation and Traditional Cultural Landscape by an agency having direct jurisdiction over such issues. The applicant has recently conducted more specific archeological testing, as recommended by Native American tribes, in an attempt to rule out any potential for burials or other significant cultural or archeological resources within the proposed development footprint. There are some tribal interests that believe the entire property is a Sacred and Religious site and should be preserved as open space. Given the amount of land that will be retained in open space, even with the proposed development, it is possible that most of the concerns regarding preservation and avoidance of tribal cultural resources and traditional cultural landscapes can be addressed; but that should occur before an extensive development plan is approved for the property.

Relationship between Oil Facility Remediation and Proposed Development

The subject site is presently used for oil extraction and includes a network of roughly 40 miles of pipelines and nine miles of paved and unpaved roads that wind to various well heads, storage facilities, and other oil processing equipment areas spread across the site. There are a number of sensitive species using the property in its current disturbed, but still incredibly rich ecological state. The proposed oil field clean-up and implementation of the restoration required through the recommended special conditions will likely be beneficial for habitat; however, clean-up of the site will have to occur when the oil wells are abandoned, regardless of the plans for residential and commercial development.

Of the more than 400 wells that have been drilled on the property, the great majority have already been abandoned. The settlement agreement and orders issued by the Commission in March 2015 to address alleged unpermitted development on the site requires the applicant to, among other things, abandon 17 additional wells on the project site, restore 18.45 acres of habitat, and preserve 24.6 acres of the site as open space; the applicant/landowner is bound to perform the restoration and mitigation activities required by the Consent Orders regardless of the Commission's action on this application.

Further, in accordance with a stipulated agreement that arose from a dispute over the legality of certain wells on the property, described in more detail in Appendix B, the mineral rights owner - Horizontal Development LLC - has applied to the Commission for a coastal development permit (CDP No. 9-15-1649) to (a) restrict its ongoing and future oil operations to within an

approximately 15 acre portion of the site made up of two heavily developed industrial areas on the property known as the Oil Remainder Areas and (b) carry out some additional well abandonment activities. Permit application no. 9-15-1649 is currently being reviewed and is expected to come before the Commission later this year.

The proposed development plan should be evaluated in its own right, not allowed to serve as a catalyst that results in more extensive clean-up and soil disturbance, under the guise of necessary clean-up, than would otherwise be necessary to remove contaminants and restore the property's habitat value. Moreover, the extent of soil disturbance proposed following oil well abandonment in this proposal exceeds the amount of soil disturbance necessary for actual clean-up of the site for open space, and is proposed in some areas to make way for the residential and commercial development plan.

Site Constraints and Permissible Development

In the May 2016 staff report and exhibits, approximately 55 acres of the site was identified as potentially developable because of its location outside of the mapped constraints. The ESHA determination of the May 2016 staff report determined that the Burrowing Owl wintering burrows on the site were ESHA and a buffer was assigned to the burrow habitat. However, the Burrowing Owl foraging habitat was not identified as ESHA. As a result, there was strong criticism of the staff report from professional biologists who noted that without the foraging space, protecting the burrow habitat was essentially pointless because there is no other location within the vicinity where these owls can forage except for the open grassland on the Banning Ranch site. Thus, even with their burrow habitat protected and designated ESHA there would be no food source and the owls would be extirpated from the site and from the region. As such, the ESHA determination has been revised to reflect that the grasslands of the site rise to the level of ESHA because of the special role they serve as valuable habitat for the sensitive Owl species (**Exhibit 13a**). As a result of the revised determination, there is approximately 19.7 acres of identified developable space located outside of the mapped constraints (**Exhibit 4**).

Since October, the staff and the applicant have tried to get closer to agreement on an acceptable development plan, but one of the biggest stumbling blocks remains the proposed Bluff Road as a thoroughfare through the property connecting 17th Street to Coast Highway. The road would bridge one arroyo and include a series of box culverts in a second arroyo in an effort to minimize impacts, but it would still have direct, impermissible impacts on ESHA and wetland habitat and would bisect the central open space corridor that contains the majority of the relatively undisturbed ESHA and wetlands that creates the connectivity and ecological balance of the property (**Exhibits 5 and 6**). Staff, therefore, does not believe Bluff Road is supportable under Chapter 3 policies of the Coastal Act. Nor does staff support that the applicant's public access arguments suggesting that the movement of residents to the coast makes the proposal approvable, because the proposed development and its future residents would create the demand for the roadway which does not currently exist. In addition, existing roads surrounding the project site already provide coastal access for inland residents and the public that are superior to what would be provided by Bluff Road, and there is opposition to the development of Bluff Road by residents in the area. Additionally, the development proposed on the Southern mesa would remove large areas of ESHA foraging habitat and have detrimental impacts on the sensitive

species of the site which is also not supportable under Chapter 3 policies of the Coastal Act (**Exhibits 5 and 6**). The development project as proposed would impact approximately 42 acres of ESHA and Wetlands.

Other public access elements of the project, including public parking and visitor serving uses, would be enhancements for the public in coastal Newport Beach, but would not provide any substantial new coastal access opportunities. Furthermore, these parking opportunities and visitor serving uses are not sited consistent with the resource protection policies of the Coastal Act. The proposed trail network throughout the site, though, does provide for non-automobile circulation and additional recreational opportunities for the public. The proposed improvements to water quality would also enhance the habitat value of the site, so these elements of the proposal are supportable under the Coastal Act.

While the applicant may argue that, given the significant costs of developing the site, the amount of development that could occur consistent with staff's recommended conditions does not provide an economically viable project, neither the Coastal Act nor the state and federal constitutional provisions prohibiting takings require that this Commission guarantee developers a profitable return on their investments. Moreover, as indicated above, the subject site comprises only four legal lots. Nevertheless, Staff's recommendation would allow for a substantial amount of residential development on the project site, far exceeding 4 units. Consequently, this Commission is under no obligation to authorize additional development in order to avoid a taking. Nor must this Commission authorize additional development in order to provide the developer with sufficient revenue to fund the clean-up operation, as the oil operator is already obligated to complete that clean-up under existing law.

Finally, although some elements of the proposal would provide benefits to coastal resources such as public access and recreation, and those benefits are supported and even encouraged by the Coastal Act, that is not a basis for approval, as the Coastal Act only requires a balancing of benefits and harms when a project presents a conflict between one or more Coastal Act policies. Since the Coastal Act only encourages approval of such benefits and only when they can be provided in a manner that is consistent with other policies, the fact that the current proposal would violate other policies means that the Coastal Act does not require approval of those benefits as currently proposed, so there is no conflict among policies. Moreover, there are alternative means of providing those same benefits without violating other Coastal Act policies. Thus, those aspects of the project present no conflict to be resolved.

In addition, the Commission must make findings that the approved project would be consistent with CEQA, specifically including a finding that the project approved is the least environmentally damaging alternative. The proposed project is not the least environmentally damaging alternative. While there are project alternatives that would be less environmentally damaging alternatives, such as preservation as open space, the development footprint recommended by staff would provide an alternative that would avoid ESHA and wetlands; mitigate any adverse impacts to coastal resources; and protect sensitive habitats and resources in perpetuity, while also achieving the project goals to the maximum extent feasible.

Therefore, staff is recommending approval of the project as conditioned to include: oil well abandonment and clean-up to the appropriate levels with habitat restoration, protection of all sensitive resources, both biological and cultural, development of water quality improvements and the residential areas to the north of the site specifically the Urban Colony and the North Family Village with a road between the two, and all associated infrastructure and utilities confined to the areas outside of mapped constraints with access limited to 17th street. Staff is also recommending approval of the 329 acre Open Space dedication and habitat restoration.

The recommended conditions are attached to the end of staff report after the Findings due to the number and size to help with navigation through the report in digital format. Conditions of approval would result in a revised plan that avoids sensitive resources and identified site constraints by focusing the development into a smaller footprint and by limiting the circulation. The conditions of approval include: a requirement to revise the development plans to avoid harming the resources that the Coastal Act requires be protected, except for temporary impacts that are necessary as part of a clean-up and restoration effort; restrictions on future development; habitat protection; a requirement for in-situ restoration and mitigation for impacts to ESHA and wetlands due to oil operation clean-up; protection of cultural resources; requirements for other regulatory agency approvals; a requirement that the landowner offer to dedicate the lands of the proposed 329 acre preserve, trails, and recreational areas for their protection; a provision to ensure that no future bluff or shoreline protective devices will be constructed to protect the authorized development; and submittal of evidence of water supply. Conditions of approval also include the submittal of several final plans for landscaping, lighting, construction staging and phasing, construction BMPs, water quality, and geotechnical review. Only as conditioned can the project be found consistent with the Coastal Act.

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I. MOTION AND RESOLUTION

Motion:

*I move that the Commission **approve** Coastal Development Permit No.* 5-15-2097 *pursuant to the staff recommendation.*

Staff recommends a **YES** vote. Passage of this motion will result in approval of the permit as conditioned and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

Resolution:

The Commission hereby approves a Coastal Development Permit for the proposed development and adopts the findings set forth below on grounds that the development as conditioned will be in conformity with the policies of Chapter 3 of the Coastal Act and will not prejudice the ability of the local government having jurisdiction over the area to prepare a Local Coastal Program conforming to the provisions of Chapter 3. Approval of the permit complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or 2) there are no further feasible mitigation measures or alternatives that will substantially lessen any significant adverse impacts of the development on the environment.

II. STANDARD CONDITIONS

This permit is granted subject to the following standard conditions:

1. Notice of Receipt and Acknowledgment. The permit is not valid and development shall not commence until a copy of the permit, signed by the permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.

2. Expiration. If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.

3. Interpretation. Any questions of intent or interpretation of any condition will be resolved by the Executive Director or the Commission.

4. Assignment. The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.

5. Terms and Conditions Run with the Land. These terms and conditions shall be perpetual, and it is the intention of the Commission and the permittee to bind all future owners and possessors of the subject property to the terms and conditions.

III. FINDINGS AND DECLARATIONS

A. PROJECT LOCATION AND BACKGROUND

Location & Current Ownership
Banning Ranch is a four-lot, 401.1 acre site in Orange County at the borders of Newport Beach, Huntington Beach and Costa Mesa (**Exhibit 1**). The site is bounded on the west by the Santa Ana River and the Semeniuk Slough, a remnant channel of the Santa Ana River that adjoins 92 acres of restored salt marsh basin owned and managed by the US Army Corps of Engineers; on the south by Pacific Coast Highway; on the east by a residential area and Sunset Ridge Park in the City of Newport Beach, and parcels partially occupied by storage that are owned by the Newport Mesa Unified School District; and to the north by the City of Costa Mesa Talbert Nature Preserve, an approximate 180-acre nature preserve and wilderness park owned and operated by Orange County Parks. Approximately 40 acres of the project site are located within the incorporated boundary of the City of Newport Beach, while the remainder of the project site is located within unincorporated Orange County. The City of Newport Beach has indicated an intent to annex the property, demarcating it in the City's "Sphere of Influence." The City of Newport Beach issued local approvals for the development project and was the Lead Agency for the production and certification of the Environmental Impact Report (EIR) required pursuant to the California Environmental Quality Act (CEQA). The site is not certified (deferred certification) in the City of Newport Beach's Coastal Land Use Plan (LUP), and presumably, the City would create a plan for the site after annexation. All 401 acres of the site are in the Coastal Zone.

The applicant for the pending proposal is Newport Banning Ranch LLC (NBR), a partnership that includes Aera Energy, Cherokee Investment Partners, and the real estate company Brooks Street, which own the surface rights to the site. The underlying mineral rights are held by Horizontal Development, LLC, whose operating affiliate, the West Newport Oil Company, has been conducting the oilfield operations on the site since 1983. In addition, the City of Newport Beach operates approximately 16 wells and an oil processing facility at the southwest corner of the site adjacent to Pacific Coast Highway.

Site History
Banning Ranch (BR) has a rich natural history with important ecological and cultural functions. The site was once occupied by Native Americans. Adjacent to the Santa Ana River and the Pacific Ocean, the site likely offered productive habitat, freshwater, and hunting and foraging resources. Cultural recourses have been found on the BR site and many more resources are likely still present, yet to be found. At the time of initial European contact, the Santa Ana plain was occupied by the Gabrielino Native Americans. Central Orange County was shared by both the Juaneño and the Gabrielino tribes. An area called "Genga" is located in what today is Talbert

Regional Park, immediately inland of the Banning Ranch (BR) site. The site was a shared land between two Native American tribes, the Juaneño and the Gabrielino tribes. Today, the site still contains 8 known archeological sites from these tribes and likely more yet to be discovered sites. BR is just one of many sites in Orange County that were occupied by Native Americans.

Among the more significant sites known along the northern coast of Orange County is the complex of sites surrounding Bolsa Chica, including the "Cog Stone" site or the "Griset Site". As with Bolsa Chica, Newport Bay also is surrounded by a number of prehistoric sites. The sites along the southern Orange County coast in the San Joaquin Hills include multi-component complexes at Bonita Mesa, Pelican Hill, and Shady Canyon. The BR site has been recorded with the Native American Heritage Commission (NAHC) as sacred land as of February 2016. The State NAHC added the "Banning Ranch Cultural Properties and Landscape" located on the site to the Sacred Lands Inventory because of its cultural significance, above and beyond the conditions of the artifacts present on site.

Some Native Americans and professional archeologists believe that the site is an extension of the prehistoric village Genga and that the individually labeled archeological sites recorded on the BR site are all connected and actually represent a small village. Archaeological excavation notes from the 1930s at Genga included digs at the BR site where a burial was found. The archaeologist notes that they were looking for a community gravesite on BR, similar to the gravesite found at Fairview park. Although no community gravesite was found in the 1930s, testing was only performed on the northern quarter of the site. Testing that was done later in the 1980s was only performed around locations proposed for oil wells. Investigations done during the environmental review was limited to verifying the location and quality of existing known sites that were discovered in the 1980s. To date, there has not been an investigation with the goal of identifying all archaeological sites or investigating whether or not a community grave is present onsite, or if the site is connected to village Genga.

In 1801, all the land that lay east of the Santa Ana River, from the Pacific Ocean and inland for 25 miles to the mountains was used for grazing cattle and eventually became known as the *Rancho Santiago de Santa Ana,* totaling over 62,000 acres, which included the BR site. The land was later sold to Mary Hollister Banning in 1874. Thereafter, the site was referred to as the Banning Ranch. Over the years, portions of the property were leased to local farmers.

It wasn't until 1939 that 1,750 acres of the Banning Ranch, including the subject site, were leased for drilling operations by the Thompson Company, an independent operator. Parts of the Banning Ranch were sold off and/or developed. Today, the subject 401 acre remainder of Banning Ranch still supports an extensive network of ecological habitats, as described by the City of Newport Beach's General Plan Land Use Element:

Although the Banning Ranch site contains an assemblage of diverse habitats that have been historically disturbed, when this area is considered with the contiguous Semeniuk Slough and restored wetlands, it provides wildlife with a significantly large, diverse area for foraging, shelter, and movement. Biological studies performed for Banning Ranch indicate that, while disturbance associated with oil activities diminishes the quality of existing habitat to some

extent, overall, the area should be regarded as relatively high-quality wildlife habitat due to its size, habitat diversity, and continuity with the adjacent Semeniuk Slough and federally-restored wetlands.

The Banning Ranch project site has supported ongoing oil and gas production operations since approximately 1944. Over 470 oil and natural gas production and steam and water injection wells have been drilled during 72-years of operations, and access roads, pipelines, power lines, and other associated infrastructure have been installed and used. Over time, as operational practices changed and evolved and oil formations at different depths and locations on the site were targeted, wells and infrastructure were abandoned, removed, relocated, and replaced across the site. Peak annual oil and gas production on the site occurred in the early 1980s from over 300 active wells and has declined steadily until recent years when it appears to have stabilized with less than 60 active production wells. The majority of these wells are located in the central portion of the site near the 17th St. entrance and the two lowland sites proposed to remain as oil production areas (also referred to as the "oil remainder areas").

In 1973, Proposition 20 (the predecessor to the Coastal Act) took effect, and the California Coastal Zone Conservation Commission granted an exemption from Proposition 20's permit requirement (E-7-27-73-144) to the oilfield operator at that time, General Crude Oil and G.E. Kadane & Sons, for continuation of the oil production activities occurring or in development at the time, including the use of the 328 wells that existed onsite and the 28 additional wells that were in development. In addition, the "abandonment of wells in accordance with requirements and approval of the State Division of Oil and Gas and removal of surface equipment and pipelines per state and local agency requirements" was exempted from coastal development permit requirements.

While this document establishes that certain well abandonment and surface equipment removal activities are exempted from coastal development permit requirements, these activities are limited in type and scope. The exemption states that the abandonment of wells and the removal of surface equipment and pipelines carried out according to the State Division of Oil and Gas (currently known as the California Department of Conservation's Division of Oil, Gas and Geothermal Resources or DOGGR) authorization is exempt. However, none of the proposed abandonment activities currently contemplated have been required or authorized by DOGGR. In addition, typical well abandonment activities considered by DOGGR are limited to the capping of active wells and the removal of oil infrastructure and clean-up of visible areas of oil. The extensive onsite soil and concrete processing, treatment, and disposal element of NBR's proposal significantly exceeds the scope of what DOGGR would (much less did) require under its oilfield restoration regulations and is therefore not exempt. Further, as described in greater detail, the Commission has additional authority to review the proposed project under its federal consistency regulations, and NBR has included the entirety of the proposed project - both oilfield clean-up activities and residential and commercial development - in its CDP application.

Coastal Commission Action

A previous version of the current proposal for development of this site (CDP application 5-13-032) was heard by the Commission in October 2015. No action was taken at that hearing and the

item was continued, tentatively planned to be scheduled for the January 2016 hearing. Because of the time constraints and the need for on-going site visits, corrections to mapping and data, and working meetings, the applicant withdrew the application 5-13-032 and resubmitted the application (as 5-15-2097). Staff and the applicant ultimately agreed on a goal of having the item heard at the May 2016 hearing. At the October 2015 hearing, the Commission made several comments and suggestions for a revised project and for staff and the applicant to work together to develop a revised plan. In an effort to address these comments, staff scheduled several working meetings with the applicant and several additional site visits. A staff report was published in April 2016, with a recommendation of approval, however the applicant chose to postpone the hearing in order to respond to the staff recommendation. In the time between the April 2016 staff report was published and the September Commission hearing, the applicants applied for a second permit (CDP 5-16-0649) to conduct archaeological investigations on the site; the permit was approved by the Commission August 2016 and described in more detail in Section H. Archaeological and Cultural Resources. The project also includes establishment of 15 acres of oil remainder areas and work within them is proposed and currently being reviewed in CDP application No. 9-15-1649.

B. STANDARD OF REVIEW

Approximately 40 acres of the site are under the general jurisdiction of the City of Newport Beach, and 361 acres are under the jurisdiction of the County of Orange. However, for Coastal Act permitting purposes, the entire site is in the Commission's permitting jurisdiction. This is true for two reasons. First, although the City of Newport Beach Coastal Land Use Plan (LUP) was certified by the Commission in 1982, and was updated in 2005 and 2009, the current LUP leaves the site in a state of deferred certification (**Exhibit 7).** Second, since the City has no Implementation Plan, it does not have a fully certified LCP. The City is currently pursuing the Implementation Plan for its LUP. The LUP states:

1.1 Purpose- *The Coastal Land Use Plan sets forth the goals, objectives, and policies that govern the use of land and water in the coastal zone within the City of Newport Beach and its sphere of influence, with the exception of Newport Coast and Banning Ranch… Banning Ranch is a deferred certification area due to unresolved issues relating to land use, public access and the protection of coastal resources.*

2.2.4-1- *Designate the Banning Ranch Property as an area of deferred certification until such time as the future land uses for the property are resolved and policies are adopted to address the future of the oil and gas operations and the protection of the coastal resources on the property.*

The 40 acres of the site within the City of Newport Beach's boundaries are included in the City's General Plan as a "planned community." Despite the fact that the entire site is not formally a part of the City of Newport Beach, the City's general plan (not certified by this commission) includes a designation for the site and prioritizes the site as open space, or alternatively as open space with residential, which was added and voter-approved in 2006. The approximately 361 acres under the jurisdiction of Orange County have a land use designation of Open Space and zoning designations of light industrial, residential, business, and an overlay zone allowing for oil production (not certified by this commission). The entire Project site has a *County of Orange*

General Plan Land Use Element designation of Open Space (**Exhibit 7)**. The Land Use designation had a priority use of Open Space to include consolidation of the oil operations, restoration of the wetlands, provisions for a nature and educational center, and active neighborhood parks. If not acquired for open space within a specific time period, the alternative use of the property allows for residential, retail, schools, active parks, and preserved open space. Neither the City of Newport Beach nor the County of Orange has a certified Local Coastal Program that includes the Newport Banning Ranch site. Because the proposed project is inconsistent with the County and City plans, subsequent changes to the plans will require land use designation changes. The Orange County General Plan will need to be amended if the property remains within unincorporated Orange County. If the City of Newport Beach annexes the property, Newport Beach will be able to incorporate the property into the LCP and it will require an LCP amendment. The project was approved by the Newport Beach City Council and an Environmental Impact Report was certified by the City of Newport Beach in August 2012. The project does not have local approval from the County of Orange.

Despite the current land use designations in the County and City General Plans of priority as open space, the project includes proposed new land-use designations for mixed use development. The policies of the Coastal Act encourage and protect higher priorities uses, which include areas for open space, lower cost recreation, and visitor serving development. As stated, the site is not formally annexed to the City of Newport Beach, which is in the process of creating an implementation plan and certifying their LCP. Approval of this project under a coastal development permit, because it is inconsistent with the policies of the Coastal Act, would prejudice the ability of the local government to certify their LCP. Only as conditioned to be consistent with Chapter 3 policies of the Coastal Act, can the project be approved without prejudicing the LCP.

The EIR describes a development agreement between the applicant and the City of Newport Beach with contingencies for annexation:

Pursuant to the City Code and Section 65864 et seq. of the California Government Code, a development agreement is proposed between the Project Applicant and the City of Newport Beach in order to describe the development rights of and public benefits to be provided by the Applicant, and outline the terms for annexation of the property to the City.11 Section 65865(b) allows a city to enter into a development agreement for property in unincorporated territory with the city's Sphere of Influence; however, the validity of the agreement is contingent upon completion of annexation proceedings. The Pre-Annexation and Development Agreement (Development Agreement) between the Applicant and the City would vest the Project's development approvals to allow buildout of the Project site under the development standards and requirements in place at the time of Project approval. The Development Agreement includes requirements of the City that would need to be accomplished by the Applicant in return for the vesting of Project approvals. The Development Agreement addresses affordable housing requirements; parkland dedication/in lieu fee requirements; infrastructure phasing including Traffic Phasing Ordinance (TPO); permitting by the City pursuant to the Newport Banning Ranch Master Coastal Development Permit subsequent to approval by the Coastal

Commission; vesting of City entitlements and applicable land use regulations; and other issues relevant to the Project in order to describe the development rights of and public benefits to be provided by the Applicant and to outline the terms for annexation of the property to the City. The Development Agreement would not preclude the need for future site plans, tentative tract maps, or other permit processing prior to development. If the City does not have a certified Local Coastal Program by such date on which the Development Agreement is entered into, the Development Agreement would be submitted to the Coastal Commission for its approval.

The suitability of the site as a mixed use development has not been addressed through any LUP or through a certified Local Coastal Program. For a project of this scale, land uses/designations should be identified through a local coastal program prior to any coastal development permit being processed. The standard of review is Chapter 3 of the Coastal Act. Preceding submittal and again upon submittal of the subject CDP application to the Commission, staff advised the applicant that any development plan for Banning Ranch should be addressed in the context of an LCP. The applicant was asked to pursue a certified land use plan for the site in collaboration with either, or both, the City of Newport Beach and the County or Orange. Letters from both agencies were received that indicated that the local governments were unable or unwilling to seek certification of an LCP for the subject area or, at minimum, seek certification of a coastal LUP. Thus, the applicant decided to proceed with the CDP application.

C. PROJECT DESCRIPTION

The proposed project includes abandoning oil operations, clean-up and disposal of contaminated soil, oil and gas production infrastructure, and debris material, and constructing a housing and mixed-use development on the 401 acre site. The project also involves mass grading, a habitat impact mitigation and conservation proposal, and a subdivision. The revised development proposal submitted July 11, 2016 includes 12 acres of roads, 37 acres of residential with 895 residential units; 45,100 sq.ft. of commercial use, 8 acres of retail and resort with a 75 room hotel and 20 bed hostel; 5 acres of park and 7 miles of public trails and 329 acres of Natural Open Space Preserve (**Exhibit 2**). Active oil operations would remain on roughly 15 acres of the site. Details of the proposal are described further below.[2]

Grading

Mass grading is proposed to prepare the site for the ultimate project. Over-excavation and cut and fill associated with the development plan includes grading for parks, roads, underground utilities, and development lots. Grading is proposed in the Open Space Preserve to establish trail grades, prepare mitigation areas and provide maintenance access and water quality basin creation areas. Estimated total grading for the Project is approximately 1.4 million cubic yards of cut and fill for mass grading, and 1.3 million cubic yards of grading for the housing development proposed, which would involve removal and re-compaction of three to five feet of soil on the mesa. The project requires a total of 2.8 million cubic yards of grading (**Exhibit** 10). Grading is

[2]As recent as August 23, 2016 (three days prior to the publication date of this report) the applicant made additional changes to the project to address issues and reduce impacts. However, these changes are not reflected in the current staff report as there was not sufficient time for staff to review that information and update all the relevant analysis and exhibits.

proposed 25 feet into the proposed reduced 50 foot ESHA buffers for the construction of a 10 foot wide trail.

Subdivision
The applicant is proposing Tentative Tract Map no. 17308 to subdivide the 401 acre site. The Tentative Tract map approved by the city of Newport Beach will be revised due to the Coastal Commission review process. The property is proposed to be subdivided into 35 residential lots (some of which contain multiple units and/or condominiums); 1 resort/commercial lot, 15 open space lots, and 3 park lots. The balance of the lots are for streets, access, landscape and the remaining oil use areas (**Exhibit 9**). The road lots and park lots are proposed to be dedicated to the City of Newport Beach. A lot that would provide a transition between the project site and PCH would be dedicated to CalTrans. Open Space lots and some landscaped lots would be deeded for Conservation. The residential lots would be divided among individual homeowners and an HOA. The resort lot and retail area would be owned by the Resort operator.

Residential and Commercial Development
Under the proposal, approximately 72 acres of the site would be developed with roadways, housing, retail/commercial space, resort development, and oil operation areas, (see **Exhibit 2, site plan**) divided into the following:

The Urban Colony, high density multi-family residential with 411 units in 3 different housing product types on 13.7 acres to the north of the site, near 17th street. The multi-family homes within the Urban Colony would contain 1 parking structure with 648 spaces for residential uses.

The North Family Village would contain low density single family residential above the North-South Arroyo in the central area of the site with a total of 82 units. This residential community is proposed to be 11.9 acres.

The South Family Village bordering the property line to the east near 15th street would include a community garden and a farm on 7.2 acres containing 115 residential units.

On the southern Mesa the applicant proposes to construct an 11.9 acre mixed use colony which would include visitor serving commercial, a 75 room hotel with residential units above, and a 20 bed lower- cost hostel, and a complex of 244 residential units with partial subterranean parking with access taken off Bluff Road from PCH.

The project also includes establishment of roughly 15 acres of oil remainder areas (work within which is proposed and currently being reviewed in CDP application No. 9-15-1649), with existing access off of PCH, adjacent to the Semeniuk Slough, largely configured as two areas with a connecting road between them.

The entire project is proposed to meet the standards of LEED-ND (Leadership in Energy and Environmental Design, Neighborhood Design).

Low-density housing (Traditional Homes and Cluster Residential) range in square footage from 1,850 - 4,150 sq. ft. and are proposed to be 36 feet high with up to 3 additional feet of architectural features. Moderate density housing (Townhomes 1 and 2) range in square footage from 1,650-3,000 sq. ft. and are proposed to be 45 feet high with up to 3 additional feet of architectural features. High density multi-family housing (Wrap condominiums and Resort condominiums) range in square footage from 1,000-2,000 sq. ft. and are proposed to be 60 feet high with up to 3 additional feet of architectural features. The retail and resort structures are proposed to be up to 50 feet high with up to 15 additional feet of architectural features.

Commercial and retail space totaling 45,100 sq. ft. would include 41,600 sq. ft. of visitor serving uses including the following proposed spaces:

South Village **Commercial Use**	**Visitor Serving**	**Square footage**
Art Gallery	X	3,000
Bicycle Rentals	X	3,000
Commercial/Personal Services		2,000
Health/Fitness	X	3,000
Offices		1,500
Restaurants	X	6,750
Tourist Info Center	X	100
Visitor Serving Retail	X	25,750

The multi-family homes within the Urban Colony would contain 1 parking structure with 648 spaces for residential uses. A second parking structure would be located in the Southern Colony for residential, retail, and hotel use uses with a total 566 parking spaces, which is proposed to be partially subterranean with 2 levels under the residential and hotel structures.

A 20-bed hostel is proposed in the resort colony, with rates proposed to be $79 for a private room and $59 per bed in a shared room. The hostel would be constructed as a second floor to the visitor serving retail space. The hostel would contain a common entry space shared kitchen and living area, with 4 hostel rooms, each with 2 bunk beds and a sofa, and 1 queen bed (with an optional private divider) and shared bathrooms. In the hostel, there would a total of 16 single beds and 4 queen beds.

Roads and Infrastructure
The 12 acres of proposed roads include 2-lane, 2-way entrances to the site from Pacific Coast Highway, 15th, 16th and 17th Streets. The backbone of the development is the road network through the site, which includes Bluff Road from West Coast Highway up to connections at 17th Street, 15th Street and 16th Street. Bluff Road is proposed to be 50 feet wide from curb to curb and includes a 10 foot median and would accommodate public parking on both sides. A 5 foot sidewalk and 10 foot parkway bioswale are proposed on either sides of the street for a total right-of-way of 80 feet. The reach from West Coast Highway to the entrance to the resort area would have one sidewalk only on the east side. Bluff Road widens to 63 feet curb to curb at the intersection of West Coast Highway to accommodate turn lanes. 15th Street and 16th Street are also proposed to be 50 feet wide from curb to curb and have sidewalk proposed on both sides. Interior 2-lane, 2-way roads for access to residential are proposed to be between 54-60 feet wide and would include public street parking on both sides of the street.

A bridge is proposed to span the main arroyo toward the south of the site to create a continuous connection for Bluff Road between the North and South colonies. All roads are proposed to be open to the public and interior roads would provide public parking opportunities. Five foot wide minimum on street bicycle lanes are proposed for both sides of arterial roadways and all streets would have sidewalks separated from the street by vegetation and bioswales. No parking fees have been identified for the public parking. The applicant submitted proposed changes to the special condition of the May 2016 staff report. According to the changes, the public parks and trails are proposed to have the following restrictions: upland trails would be open for use by the general public 24 hours per day, 7 days a week, but Lowland trails would be open 6 a.m. to Sunset. Parks and public parking in the parks would be open 6 a.m. to 11 p.m. and posted with "No Overnight Parking" signs.

Utility development on the site would include: new infrastructure and utilities, including water, sewer, and storm drain facilities to serve the proposed development. A sewer main extension and sewer lines would be constructed under the trail proposed to parallel the existing oil remainder area roadway to connect to the Orange County Sanitation District pump near PCH. Stormdrain lines would be constructed under the trails in the west end of the Main Arroyo. Stormdrain lines from the Urban Colony and the North Family Village would be constructed along existing oil operation roads from the mesa to the lowlands. Some utility connections would need to be constructed within the Oil remainder areas. New water, sewer and stormdrain facilities would connect to existing City and County facilities located adjacent to the property.

Water Quality Systems
Approximately 5 acres within the Open Space Preserve would be developed with Water Quality basins and diffuser basins to control stormwater into the wetlands and to treat runoff largely from the proposed housing developments on the mesa and the flow of run-on from nearby developed areas (**Exhibit 12**). The Project includes the construction of new drainage, flood control, and water quality facilities to control the flow of surface water across the site and direct flows into the existing arroyos and reduce flow rates and volumes of runoff to the Semeniuk Slough and the Santa Ana River. The project also includes construction of water quality basin on-site dedicated

to the treatment of off-site flows that discharge untreated and uncontrolled into the site and into the Semeniuk Slough.

Water Quality systems designed for the Urban Colony, North & South Villages and the Mixed-Use Resort Colony will include series of harvest and reuse systems or biotreatment basins. All development areas will also include localized Hydrologic Source Control (HSC's) to reduce pollutant loads directly at the source. HSC's capture stormwater for use later, and reduce the amount of run-off. HSC's will include but are not limited to: impervious areas dispersion, downspout dispersion, localized on-lot infiltration and rain barrels (for single family detached residential). Additional water quality improvements consist of Low Impact Design (LID) features such as bioswales, landscaping biocells, and permeable pavement, where feasible, as well as source-control and treatment-control Best Management Practices (BMPs).

Rainwater Harvesting and BMPs that capture and store storm water runoff for later reuse for irrigation purposes to reduce potable water usage are proposed for the development areas within the Urban Colony, Mixed-Use Resort Colony and community park areas.

A water quality/detention basin is proposed near the site entrance off of 16th Street to treat urban run-on and would direct flows into the Southerly/Main Arroyo. The man-made basin will be approximately 0.75 acre and will be designed to accommodate up to a 4-foot treatment depth. Flows will be treated by native plants on the surface and will also include bioretention soil media mix to promote treatment through the soils and collection into a sub-drain. The basin would be planted with native emergent marsh and riparian species to promote water quality cleaning and natural energy dissipation.

One diffuser basin is proposed within the lowlands, just north of the northern oil remainder site, downstream of the North Village. Flows from the North Village area will be treated prior to reaching the diffuser basin by HSC's and either perimeter basins or the harvest and reuse systems. The diffuser basin would be constructed of rip-rap.

The second diffuser basin is proposed within the Open Space Preserve at the west end of the Southerly/Main Arroyo prior to flows entering Semeniuk Slough. A culvert would be constructed under the existing oil remainder site roadway in order for the flows from the Main Arroyo to exit the site into the Slough. The purpose of this diffuser basin is to control flows into Seminiuk Slough from the Southerly/Main Arroyo and the South Village development areas. Flows from the South Village development areas will be treated prior to reaching the diffuser basin by HSC's and either biotreatment basins or harvest and reuse systems. The diffuser basin would also be constructed of rip-rap. The diffuser basins proposed are in and adjacent to wetland and riparian habitat. Construction plans for the water quality detention basin, diffuser basins, and dissipator were not provided in the application materials.

Parking

A total of 54 off-street public parking spaces would be provided within the Community Park area. The Community garden and farm would include surface parking lots with 24 spaces. In addition, public off-street parking would be provided as shared parking within the resort area parking structure with 225 spaces would be available for retail uses and 160 spaces would be available for hotel uses. This structure includes 284 spaces for residential uses. Any remaining

spaces would be available for coastal visitors. Additional parking is proposed off of Bluff Road near the entrance from PCH where a public shade structure would be and a small surface parking lot with 37 spaces.

A shuttle stop at the resort is proposed to provide service from the visitor serving/ resort area to the West Newport Park on the hour, Friday through Sunday, from Memorial Day through Labor Day, operated by the visitor serving commercial manager.

Habitat Conservation and Conceptual Mitigation Plan
Most of the impacts to the site would be a result of the implementation of the proposed oilfield clean-up work and the mass grading to prepare the site for the housing development (**Exhibit 11**). The applicant is proposing compensatory mitigation onsite for most of these impacts, as opposed to restoration in-place. The plan for the mitigation is the Habitat Conservation and Conceptual Mitigation Plan (HCCMP). The HCCMP was prepared as a mitigation proposal and assumes that the underlying impacts to the sensitive resources would be approvable under the Coastal Act.

Open Space
The 329 acre "Natural Open Space Preserve" would remain protected as permanent natural land and managed open space and control over the area to achieve these purposes would be transferred to a third party by an offer to dedicate. The applicant proposes these lands would be managed by the non-profit Newport Banning Land Trust (NBLT), which has negotiated a Memorandum of Understanding (MOU) with the applicant that would allow the NBLT to assume stewardship responsibility for the Natural Open Space Preserve. Funding for preservation of these open space areas would likely be provided by the Homeowners Association established for the proposed housing developments. Approximately 160 acres of the Open Space Preserve would be subject to restoration and enhancement or newly created habitat, as a result of mitigation for the development proposal.

Trails
The proposal includes 7 miles of public trails in areas adjacent to wetlands and ESHA. This trail system would provide connections between the lowlands of the site and the mesa, as well as connections to larger regional trails: Santa Ana River Regional Trail System and the Talbert Nature Reserve. The trails would be around the perimeters of the proposed "villages and colonies" with native landscaping. The trails are proposed to be 10 feet wide, within ESHA buffers. Bordering the trails would be a 40 foot wide buffer between the trail and ESHA, with maintained vegetation containing native scrub or purple needle grass which would also serve as a fuel modification zone. The trails in the lowlands primarily following the pattern of existing oil operation roads. Additionally, trails proposed to cross through the western end of the Southerly/Main Arroyo would follow the pattern of existing roads. A trail would connect from the lowlands to the Main Arroyo trail, parallel to the Orange County Sanitation District easement, and the existing road connecting the two remainder oil operations sites.

The 7 miles of public trails would be located within 10-foot-wide public easements or dedications as designated on the project subdivision map. Within the 10-foot-wide trail

easements/dedications, generally six feet would be trail surface area and a maximum two-foot transition to native ground would be provided adjacent to each side of the trail surface for a maximum total improved area of 10 feet. The trail surface would consist of native soil or decomposed granite and would meander and/or become narrower or incorporate sections of elevated walkways as necessary to avoid identified special-status habitats.

On-street bicycle paths are proposed throughout the project. Five foot wide on-street bicycle trails are proposed for both sides of arterial roadways including Bluff Road, 17th Street, and 15th Street. Bike racks would be provided as a part of the proposed neighborhood retail center, parks, and the multi-family residential uses.

Parks
The project would include development of approximately 5 acres of active park near 16th street and additional park space near the southern residential community off 15th street (**Exhibit 2**). The 5 acre park near 16th street is partially located within the City of Newport Beach and partially within unincorporated Orange County, but would be dedicated to the City. The Community Garden off 15th street is located within the City of Newport Beach and would be dedicated to the City. The preliminary site plans for the active park includes active play areas with a community pool, basketball court, sports field, and a public restroom facility. The park would include 54 parking spots in a surface parking lot. The applicant has indicated that the park plans would utilize "dark-sky" technology in the lighting plans.

The site plan includes a community garden and a farm near the southern residential community off 15th street. The plans for the community garden have not been provided and it is unclear if the garden space will be available to members of the public or if it is strictly for use by occupants of the proposed residential communities.

Interpretive Parks are proposed to be located on the periphery of the Natural Open Space Preserve and would incorporate a vernal pool interpretive area and trailheads for the Interpretive Trail System in the Natural Open Space Preserve. Construction plans for the Trailhead and interpretive parks/trails have not been provided.

Oilfield Abandonment and Clean-up
While the owner of the site's mineral rights, Horizontal Development LLC, has submitted a coastal development permit application (No. 9-15-1649) to continue and expand oil and gas production within two existing industrial areas on the lowland portion of the site (referred to on maps and figures as "Oil Remainder Areas"), the limited oil operations that are currently occurring throughout the rest of the site are proposed to be terminated. This would allow NBR to prepare those areas for the proposed commercial and residential development and would entail shutting down the current oil and gas production operations there (roughly 66 active or idle wells), removing all associated equipment, and treating all areas in which hydrocarbons or other contaminants are present in the soil. Of those approximately 66 active or idle wells, roughly half are located on the upland mesa (predominantly in the central portion near the entrance to 17th St.) and half are located in the lowland. To guide this proposed oilfield clean-

up work, NBR has developed both an Oil Field Abandonment Plan (Abandonment Plan) and a Remedial Action Plan (RAP).

Generally speaking, the Abandonment Plan describes NBR's proposed approach for shutting down oilfield operations and collecting and disposing of oilfield infrastructure while the RAP was developed as a formal submittal to the Santa Ana Regional Water Quality Control Board (Water Board). It describes the various clean-up targets (infrastructure and pollutants) and establishes the threshold levels for various types of contaminants. In approving the RAP in December of 2015, the Water Board accepted NBR's proposed clean-up targets and threshold levels for contaminants. These thresholds are based on the type of contaminant (level of toxicity, potential impact on the environment and public health), as well as the depth and location of the contaminant and the proposed future use of the area in which it is located. For example, the most stringent clean-up levels are applied to the top 15 feet of soil within areas of proposed future residential use and the least stringent are applied to soil deeper than 15 feet below the surface in upland areas of proposed open space and lowland areas deeper than 3 feet below the surface. Although the RAP establishes these thresholds, the land use designations approved by the Commission for particular areas on the site (commercial/residential or open space/park land) will determine which clean-up thresholds would be applied there.

Existing and Future Site Conditions

Although the proposed closure and abandonment of the majority of the oilfield and its conversion to new residential, commercial, and open space uses triggers the need for an extensive and comprehensive removal of oilfield contaminants and infrastructure from those areas, it is important to note that a substantial amount of clean-up and restoration is also required on the site regardless of the proposed project. In fact, in several instances it appears that NBR's implementation of agency-required restoration efforts and clean-up activities on the site is long overdue - in some cases by well over a decade. In other words, one should not assume that the site would remain in its current condition if the clean-up activities proposed to prepare the site for residential and commercial development did not occur. Specifically, resolution of these past, recently completed, and ongoing efforts and investigations by state and federal resource agencies will significantly improve the existing conditions on the site:

- Commission Consent Cease and Desist Order/Restoration Order No. CCC-15-CD/RO-01 requires 18.45 acres of native coastal sage scrub, grassland, wetland and riparian habitat restoration on the site within areas two through six on the map included as **Exhibit 15**. The Orders also require passive restoration, i.e. cessation of mowing across the entire site, except for in limited strips, as necessary for fire protection;
- Commission Consent Cease and Desist Order/Restoration Order No. CCC-15-CD/RO-01 requires 0.4 acres of concrete debris to be cleaned-up and removed to an appropriate location;
- Commission Consent Cease and Desist Order/Restoration Order No. CCC-15-CD/RO-01 requires abandonment and closure of 17 wells, and removal of the remaining wells addressed by the 2015 Consent Orders that are located outside the oil remainder areas if NBR does not seek authorization for the wells, or the

Commission does not authorize the wells. The well abandonment work also will include removal of all pipelines, power lines, pumps, well pads, other equipment, infrastructure, and visibly contaminated soil associated with those wells, as required California Department of Conservation, Division of Oil, Gas, and Geothermal Resources regulations;

- The Santa Ana Regional Water Quality Control Board requires, in compliance with its Cleanup and Abatement Order No. 01-77, that NBR partner Aera Energy and the oilfield operator carry out 2.87 acres of wetland restoration and ongoing soil and water clean-up and remediation activities within the lowland portion of the site;
- As described in lease inspection reports and deficiency letters, prior and ongoing investigations by the California Department of Conservation, Division of Oil, Gas, and Geothermal Resources indicate that extensive areas of derelict equipment, abandoned infrastructure and debris located throughout the site need to be removed and disposed of at a certified disposal facility;
- The extensive mapping and enhanced understanding now available of the existing sensitive habitats, wildlife, and vegetation communities on the site will allow for significant improvements in environmental stewardship as part of any ongoing and future operations.

Infrastructure Collection and Removal

The first element of the proposed partial oilfield closure is the abandonment of approximately 66 active or idle oil wells and the investigation and potential re-abandonment of historically abandoned wells that may not have been plugged according to current standards. This would be followed by the collection and removal of the infrastructure that serves these wells, including the removal of pipelines, pumps, power poles, tanks and vessels; the demolition and removal of roads and oil pads; the demolition of office buildings and storage structures; the removal of historic oil sumps and other areas that NBR has designated as having potential environmental concern (PECs) and the processing and disposal of several acres of concrete debris piles and soil treatment stockpiles that have been stockpiled on site since they were generated during past oilfield abandonment activities carried out in the 1990s. The anticipated maximum disturbance footprint associated with these activities is shown in **Exhibit** 21. While the removal and collection activities could be carried out in a variety of different manners, there is limited flexibility in their siting as they would need to be located in the areas that currently contain the target materials and infrastructure that need to be removed.

More specifically, as part of the proposed removal activities, approximately 230,000 linear feet of two to four inch diameter pipelines are proposed to be removed after being emptied of usable product and flushed with clean water. Smaller above-ground pipes would be removed by hand and pulled out of vegetated areas, while larger pipe systems would be cut into 20 foot sections and drained into catch basins and transported to one of the proposed onsite staging areas for salvage, recycling, or transport offsite. The vast majority of pipes are above-ground but in locations where pipelines cross access roads or work areas, they may be buried up to three feet underground. The lines in these locations would be excavated and removed. The soil underlying and surrounding the pipes are proposed to be surveyed for visible surface oil and any

soil with visible oil contamination would also be tested and excavated for treatment and disposal if necessary.

In addition to the pipelines, the site also includes approximately 306 wooden power poles with lengths of 35 to 40 feet, as well as several electrical panels and transformers. These poles are proposed to be cut at ground level and transported to an onsite staging area for onsite recycling or offsite disposal. Belowground pole sections would be excavated or abandoned in place, depending on their location. All power lines, transformers, and panels would be removed and taken to onsite staging areas for re-use or transport offsite.

Ten steel tanks and vessels are also proposed to be dismantled and removed. Proposed removal would involve isolation from power and fluid sources, draining, disconnection of all valves and fittings, and dismantling or demolition. Recyclable sections would be stockpiled onsite and the remainder would be transported offsite for disposal.

Thirteen buildings, garages, and structures would also be demolished and cleared from the site. Prior to demolition, inspections would be carried out for lead and asbestos and all salvageable metals, wires, and materials would be collected. Demolition would be accomplished using heavy equipment such as an excavator equipped with hydraulic cutting shears. Demolished building materials would be collected and transported offsite to a disposal facility.

Five existing concrete debris piles – covering an area of 2.35 acres – would also be targeted during removal operations. As indicated in lease inspection reports and deficiency letters, these debris piles and other soil stockpiles (as well as additional abandoned structures, vehicles, and equipment) were required to be removed from the site in 2006 and earlier by the primary state agency with oversight of oilfield operations, the Department of Conservation Division of Oil, Gas and Geothermal Resources (DOGGR). Letters to DOGGR staff from that time period indicate that NBR partner, Aera Energy, did not comply with DOGGR's requirements regarding the removal of this and other debris and instead sought to keep the debris onsite. The piles are now proposed to be processed and prepared for onsite disposal or reuse. The material in these debris piles would be combined with any additional concrete removed from building foundations, well pads, road beds, or pump supports and brought to one of the two proposed onsite concrete crushing areas. At these sites, large blocks of concrete are proposed to be crushed into smaller pieces. Once crushed, the concrete would be reused or buried onsite in a disposal pit excavated for that purpose. These excavations, part of the soil treatment operations, are proposed to provide a source of clean fill material to backfill clean-up sites, support the grading and construction preparation of the site, and provide a burial/disposal site for treated soil and other material such as concrete waste.

Other material that may also be collected, treated, and buried similar to the concrete waste, is the asphalt-like material present on some of the existing access roads. As described in NBR's Draft Abandonment Plan:

> *Many sections of the oil field roads have used traditional asphalt paving materials. Historically some roads may have used crude oil impacted tank sediments (tank bottoms)*

> *from when the facility tanks were cleaned out, combined with gravels or aggregate to pave roadways. Over time the tank bottom materials became heavily weathered leaving only the heaviest (or longest chain) hydrocarbons similar to normal asphalts. These materials are referred to as Asphalt Like Materials (ALM) and are shown on Exhibit 13. All the roadways that have these materials will be scraped by tracked bulldozers to accumulate the operations related materials and will be transported to the concrete/road processing areas. Any larger sections will be broken up and crushed to a structurally compatible size. These crushed materials will be placed in the deeper sections of the soil borrow pits and if necessary replaced with clean borrow pit soil. Most road and work areas are not expected to require any clean soil backfill.*

The site also contains 48 areas in which historic in-ground oil collection or containment areas (sumps) may have been used. These areas are proposed to be located based on historic photographs and tested to determine if excavation and treatment of hydrocarbon impacted soil may be necessary. If contaminated soil is found, it would be transported to the proposed bioremediation areas for treatment. Upon verification that the sump sites have met the appropriate clean-up levels, the excavations would be backfilled with clean soils from the proposed upland soil borrow pits.

Material Treatment, Processing, Stockpiling, Borrow, and Disposal
NBR's proposed material treatment plan includes several key elements: bioremediation (collecting and spreading hydrocarbon contaminated soil in thin layers across the ground to facilitate the natural breakdown of the contaminants in that soil by native soil bacteria); excavating contaminated soil and soil with roadbed materials; excavating soil for use as clean fill; soil and material stockpiling; crushing concrete and asphalt road bed material; and underground disposal/burial of concrete waste, asphalt, and treated soil. NBR recently developed a revised site plan showing how the proposed bioremediation, stockpiling, excavation, and disposal areas (jointly called "logistics areas") would be located and configured within their proposed development footprint on the upland portion of the site. This site plan was shared with Commission staff on August 2, 2016, and is provided as **Exhibit 17**. NBR estimates that between 270,000 and 314,000 cubic yards of material needs to be treated and/or disposed of through onsite burial.

While Commission staff is still reviewing this revised site plan and working with NBR to understand the proposed use of each area, based on previous versions, primary use areas are expected to be divided between replicate soil borrow/placement sites, soil stockpile or "clean soil flip" sites, concrete processing sites, equipment and material salvage areas, bioremediation areas and staging/stockpiling areas.

NBR's proposal to use these areas to treat and dispose of the contaminated soil, concrete waste, and roadbed material that exists on the site involves several steps: (1) the excavation and removal of roadbed material, concrete, and oil impacted soil from throughout the site; (2) transport of this material to either the concrete processing area (as an interim step) or to one of the two proposed soil bioremediation areas; (3) the excavation of deep borrow/disposal pits; (4) the stockpiling of clean soil from the deep borrow/disposal pits in the adjacent "clean flip sites";

(5) the dumping of concrete waste and roadbed material into the deep borrow/placement pits; (6) the dumping of the treated soil from the bioremediation areas into the deep borrow/placement pits; and (7) the replacement of the stockpiled clean soil from the "clean flip sites" back into the deep borrow/placement pits on top of the waste materials as a clean cap. NBR proposes this cap to be at least ten feet thick over treated soil and 15 feet thick over concrete. Some of the clean soil excavated from the borrow/placement pits would also be used to backfill areas from which oil impacted soil or roadbeds were removed.

NBR has selected the size of the borrow/placement pits and bioremediation areas based on its preferred timeline for completing oilfield clean-up activities (use of a larger area allows the work to be expedited by allowing more clean-up areas to be addressed simultaneously) and estimated need for treatment, clean soil, and disposal capacity. Field verification work carried out in March of 2016 resulted in a reduction of approximately five acres to the estimated clean-up target areas and a corresponding reduction in the estimated material processing and treatment needs. Further reductions may occur as additional field verification work is carried out as an initial step in the clean-up process and could allow for additional reductions in the footprint of the material processing and treatment areas shown in **Exhibit 17**. In addition, NBR has been working with Commission staff to consider the site's environmental constraints (such as the location of sensitive habitat areas) in the design and configuration of material treatment, processing, stockpiling, borrow, and disposal sites. However, as currently designed and shown in **Exhibit 17**, the "logistics areas" extend into sensitive resource areas and their buffers in a variety of locations. This overlap of logistics areas and sensitive resources is analyzed and addressed in Section E of this report focused on Environmentally Sensitive Habitat Areas.

NBR's proposed method of bioremediation simply relies on mixing and watering to stimulate the growth and action of natural soil microbes that break-down hydrocarbons. As described in the Abandonment Plan:

> *The impacted soil accumulated at the bioremediation logistics areas will be spread out across the bioremediation cells and soil processing equipment will work on the top 12 to 36-inches of soil, referred to as "lifts", to initiate the bioremediation process. The lifts will be disced and sprayed with water as needed to create optimal conditions for the natural and indigenous bacteria to grow and degrade the hydrocarbons within the soil. Disking and watering has proven to accelerate the bacteria to grow and breakdown the hydrocarbon molecule chains. This process could take from 2 to 6 weeks per lift and each lift will be tested in a routine manner until testing indicates that the approved remediation criteria have been achieved. Additionally, watering and moisture control measures will be employed to control dust and potential odors during the process.*
>
> *Once the appropriate remediation standards have been achieved, the now remediated soil lift will be moved into clean soil stockpiles for further verification testing by third party laboratories before recycle placement.*

D. OTHER AGENCY APPROVALS

Several other federal, state, and local agencies also have review roles that must be completed before the project may proceed.

U.S. Fish and Wildlife Service (USFWS). Because the proposed project requires federal agency permits, including a Clean Water Act Section 404 permit from the US Army Corps of Engineers, the USFWS must conduct a Section 7 or Section 10 Consultation pursuant to the Federal Endangered Species Act. Section 7 Consultation leads to the issuance of a Biological Opinion and a Section 10 Consultation leads to the issuance of an Environmental Impact Statement (EIS). Neither a Biological Opinion nor an EIS has been issued as of the date of this staff report.

California Department of Fish and Wildlife (CDFW). The project would require a Section 1600 Streambed Alteration Agreement from the CDFW pursuant to Section 1602 of the *California Fish and Wildlife Code* or notification from CDFW that an agreement is not required. The applicant applied for a streambed alteration agreement and was informed by CDFW in a letter dated September 30, 2015, that it may complete its project without a streambed alteration agreement. However, this letter also noted that the applicant should notify CDFW if any modifications to the project occur so that it may respond accordingly. As of August 15, 2016, NBR has not provided CDFW with notification of the project changes it has made over the past 11 months.

Regional Water Quality Control Board. Before the US Army Corps of Engineers can issue its Section 404 Permit, the California Regional Water Quality Control Board, Santa Ana Region (Regional Board) must issue a Water Quality Certification under Section 401 of the federal Clean Water Act (401 Certification). The 401 Certification issued by the Regional Board would be required for the fill or alteration of "Waters of the State" on the Project site located under the Regional Board's jurisdiction. Additionally, approval of the final Remedial Action Plan for the oil well/facility abandonment and site remediation is required from the Regional Board. The Regional Board issued a water quality certification in April of 2016 and approved NBR's Remedial Action Plan in December of 2015.

*U.S. Army Corps of Engineers (*USACE). The project would require a Clean Water Act Section 404 permit from the USACE for impacts to areas determined to be "Waters of the U.S." While NBR has applied for the project to be considered under a general Nationwide Permit, USACE is still in the process of determining if this approach would be appropriate or if a more extensive review under the Individual Permit process would be required. As a federal agency, the USACE's actions also require compliance with NEPA. The application did not include sufficient information for the USACE to identify accurately the "Waters of the U.S." present on the site. The Jurisdictional Delineations (JDs) submitted by the applicant contained conflicting and incomplete information. Additionally, USFWS in consultation with the USACE, cannot issue a biological opinion without accurate JDs. Once it has accepted the JDs for the site, the USACE would proceed with its review along either the Nationwide Permit or Individual Permit process. Final decisions on these matters are anticipated within the next several months.

State of California Department of Conservation, Department of Oil, Gas and Geothermal Resources (DOGGR). The Department of Conservation Division of Oil, Gas, and Geothermal Resources (DOGGR) also has authority to direct the design, scope, and implementation of oilfield clean-up and abandonment activities. Oil and gas wells to be abandoned or re-abandoned must be abandoned in accordance with the current requirements of DOGGR. This is ensured through DOGGR's well abandonment permitting process and its review of historic abandonment records for previously abandoned wells. In addition, DOGGR has standards and requirements for comprehensive oilfield abandonment. These include the review and approval of a field restoration plan that includes the removal of all tanks, above-ground pipelines, debris, and other facilities and equipment as well as a construction well site review process used to provide input on the placement of new development near abandoned well locations. While NBR has been in communication with DOGGR to understand these various authorizations and processes, it has not obtained well abandonment permits, submitted a lease restoration plan, or initiated the construction review process. However, these steps would be pursued at a later stage in the implementation of the proposed project.

Orange County Health Care Agency. Approval of the final Remedial Action Plan for the oil well/facility abandonment and site clean-up is required from the RWQCB and Orange County Health Care Agency. However, the Orange County Health Care Agency, due to lack of staffing, has deferred to RWQCB on approving the Remedial Action Plan.

Local Agency Formation Commission. The Local Agency Formation Commission (LAFCO) would review the project when the City of Newport Beach formally requests annexation of the 361 acres in unincorporated Orange County. LAFCO is responsible for reviewing and approving proposed jurisdictional boundary changes, including (1) annexations and detachments of territory to and/or from cities and special districts; (2) incorporations of new cities; (3) formations of new special districts; and (4) consolidations, mergers, and dissolutions of existing districts. For the Newport Banning Ranch Project, the annexation would include a change in service district boundaries for water service.

Orange County Transportation Authority. Amendment to the Orange County Master Plan of Arterial Highways would be required for the circulation proposed on the site. The applicant would be asking to remove a road segment that appears on the plan along North Bluff Road just north of 17th Street connection to 19th Street and to redesignate the remaining southern section of North Bluff Road from a Major (six-lane divided street) to a minor 2-lane divided street and the deletion of a second road through the project site to West Coast Highway. The amendment would include deleting the connection from 17th Street westerly to West Coast Highway.

Newport-Mesa Unified School District. An encroachment permit would be required for the construction of the extension of 16th Street and North Bluff Road on the School District's property.

California Department of Transportation. Activities located within California Department of Transportation (Caltrans) right-of-way would require an Encroachment

Permit. An Encroachment Permit would be required for widening and improvements to West Coast Highway, modifying the reinforced concrete box (RCB) culvert in West Coast Highway. All activities must be in compliance with Caltrans Statewide National Pollutant Discharge Elimination System (NPDES) Permit. Caltrans has not yet issued approval for these elements of the project.

In the preparation of these findings, the Commission staff consulted with most of the above agencies listed. In particular staff consulted with USFWS, CDFW, RWQCB, USACE, and the OC Health Care Agency regarding the sensitive biological resources and waters onsite. Some of these agencies have yet to issue approvals of the project.

Federal Consistency

As noted above, in order to proceed with the proposed project, NBR needs a permit from the USACE pursuant to Section 404 of the Federal Water Pollution Control Act of 1972, as amended (33 USC § 1344). Because this Section 404 permit is listed in the California Coastal Management Program among those federal agency permit activities that reasonably can be expected to affect any land or water use or natural resource of the coastal zone, Section 307(c)(3)(A) of the Coastal Zone Management Act requires that it be subject to the certification process for consistency with the California Coastal Management Program. As provided in Section 307(c)(3)(A):

Any applicant for a required Federal license or permit to conduct an activity, in or outside of the coastal zone affecting any land or water use or natural resource of the coastal zone of that state shall provide in the application to the licensing or permitting agency a certification that the proposed activity complies with the enforceable policies of the state's approved program and that such activity will be conducted in a manner consistent with the program. At the same time, the applicant shall furnish to the state or its designated agency a copy of the certification, with all the necessary information and data.

Therefore, before USACE can issue its Section 404 permit for any part of the project, the Commission must concur with a consistency certification for the project, finding that it would be carried out consistent with the California Coastal Management Program. Although NBR initially submitted a CDP application that did not include those aspects of the project for which it was seeking a Section 404 permit from the USACE, Commission staff worked with NBR to revise its application to include the entirety of the proposed project. This was done to consolidate the Commission's CDP review and federal consistency review of the project because the Commission's approval of a CDP that covered the whole project would duly meet the requirements of the Coastal Act and Section 307(c)(3)(A) of the Coastal Zone Management Act.

Special Condition 22 requires the applicants submit evidence of other agency approvals and that the applicant shall inform the Executive Director of any changes to the project required by the above agencies that are inconsistent with the Commission's approval of this coastal development permit. Such changes shall not be incorporated into the project until the applicant obtains an amendment to this coastal development permit.

E. ENVIRONMENTALLY SENSITIVE HABITAT AREAS

Section 30240 of the Coastal Act states:

(a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.

(b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.

Coastal Act section 30107.5 defines environmentally sensitive area:

"Environmentally sensitive area" means any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments.

Coastal Act section 30250 states:

(a) New residential, commercial, or industrial development, except as otherwise provided in this division, shall be located within, contiguous with, or in close proximity to, existing developed areas able to accommodate it or, where such areas are not able to accommodate it, in other areas with adequate public services and where it will not have significant adverse effects, either individually or cumulatively, on coastal resources. In addition, land divisions, other than leases for agricultural uses, outside existing developed areas shall be permitted only where 50 percent of the usable parcels in the area have been developed and the created parcels would be no smaller than the average size of surrounding parcels.

(b) Where feasible, new hazardous industrial development shall be located away from existing developed areas.

(c) Visitor-serving facilities that cannot feasibly be located in existing developed areas shall be located in existing isolated developments or at selected points of attraction for visitors.

The Coastal Act establishes a high standard for protection of areas that are identified as environmentally sensitive. Only resource-dependent uses, such as habitat restoration, are allowed within an environmentally sensitive area (ESHA), and all development within or adjacent to an ESHA must be sited and designed to prevent significant disruption or degradation of the ESHA, respectively.

Under the Coastal Act, if an ESHA is identified, it cannot be relocated, and must instead be avoided, unless the proposed development is "a use dependent on the resource." This fundamental requirement of the Act was confirmed in *Bolsa Chica Land Trust v. Superior Court* (1999), 71 Cal.App.4th, 493, 507, wherein the Court found:

Importantly, while the obvious goal of section 30240 is to protect habitat values, the express terms of the statute do not provide that protection by treating those values as intangibles which

can be moved from place to place to suit the needs of development. Rather, the terms of the statute protect habitat values by placing strict limits on the uses which may occur in an ESHA....

Environmentally Sensitive Habitat Areas (ESHA) are areas in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities. Coastal Act Section 30240 states that ESHA shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.

Summary of Habitats

On the Newport Banning Ranch site there are several different habitat types that contribute to the ecosystem on the site and to the surrounding sites. Because the project site is bordered by the Santa Ana River, the site contains a unique watershed in the lowlands and on the mesa. The historic path of the Santa Ana River before being channelized was vast and had a network of ever-changing outlets into the Pacific Ocean. This wide pattern between the freshwater of the river and salt water of the sea created an estuary of marsh and wetland communities. The Semeniuk slough and the wetlands controlled by USACE adjacent to the site are a few remaining examples of the wetland watershed complex in the area. While the wetlands remaining on the Newport Banning Ranch site have been impacted by heavy use of the site for oil operations since the 1940s, and before that for agriculture, the wetlands persist on the site because of the underlying watershed and the site's proximity to both the river and the ocean. The site also represents just one part of a large wildlife corridor following the Santa Ana River. This corridor is one of the few passageways left for wildlife and migrating birds to travel across southern California from the mountains to the ocean.

The site has been documented to be remarkably self-sufficient. The ecosystem on the site is a vast complex of interrelated habitats and species. The site supports a rich seed bank. Once development ceases on the site, the watershed, animals and plants are often able to rebound without intentional restoration. The City of Newport Beach's Coastal Land Use Plan (CLUP) states that the Banning Ranch site: *contains a number of sensitive habitat types including southern coastal bluff scrub, alkali meadow, southern coastal salt marsh, southern coastal black willow forest, coastal brackish marsh, and vernal pools. The property also contains steep coastal bluffs along the southern and western edges of the mesa. The bluff faces have eroded in some areas to form a number of gullies and ravines.*

The Newport Banning Ranch site is largely divided into 2 areas topographically (**Exhibit 8**): the lowlands, which consist of approximately 130 acres of wetlands ranging from 0 -10 feet above mean sea level; and the mesa, which contains 4 "arroyo" streambeds, one drainage area, a vernal pool complex, and multiple seasonal wetlands, all of which together control the flow of water across the site. The mesa ranges in elevation from 10-105 ft above mean sea level and includes coastal bluffs and canyons and riparian areas. The site does receive runoff from areas North and East of the mesa, and the arroyos on the mesa direct the water down to the lowlands and into the Slough. The water helps sustain the wetlands in the lowlands. Tidal influence from the ocean entering the Slough can also reach the wetlands in the lowlands. This mix of fresh and salt water

contributes to the large areas of salt marsh. All of these elements are extremely rare habitats in Southern California.

The habitat characteristics as described in the EIR are summarized here:
The site contains 45 vegetation types, including 20 types of coastal sage scrub; 9 types of pools, marshes and mudflats; 8 riparian types; and 8 grassland areas. In general, coastal sage scrub is located along the eastern and southern portions of the project site on the Mesa. The marshes and mudflats occur within the Lowland and are subject to tidal influence. Seasonal features and vernal pools are located in the Upland adjacent to grasslands. Riparian resources are found in portions of the Lowland and Upland. Grassland and disturbed vegetation are found throughout the project site. The project site also supports several special status plants and wildlife species. The federally listed threatened coastal California gnatcatcher and the coastal cactus wren and the San Diego fairy shrimp are present on the project site.

The Lowland (Wetlands) supports wetland habitats, including areas of salt marsh that support the State-listed Endangered Belding's savannah sparrow; they also support willow scrub and willow riparian forest that support the State and federally listed Endangered least Bell's vireo and a variety of special status nesting raptors including the white-tailed kite. Additionally, the Lowland supports special status plants, including substantial populations of southern tarplant.
Riparian and wetland habitat on the site includes willow riparian forest, willow scrub, alkali meadow, mudflats, freshwater marsh, and salt marsh.

The Mesa of Newport Banning Ranch, therefore must also be viewed in the larger context of its role in the integrated upland and wetland ecosystem. Similar to the Bolsa Chica wetlands and mesa near Huntington Beach, the Mesas and the lowland wetlands are biologically interdependent according to both the California Department of Fish and Wildlife and the U.S. Fish and Wildlife Service. Together, the wetlands in the lowlands and the mesa with the riparian arroyos and vernal pool complexes, combine to make this area an important upland-wetland ecosystem. These biological interdependencies are vital to maintaining biological productivity and diversity. Both the 9/2015 memorandum by Dr. Engel and the 8/2016 Memo. by Drs. Dixon and Engel describe in detail the different habitats present on the site, as summarized below (**Exhibits 13a and 13b**).

Vernal Pools and Wetlands
A number of plant and animal species are endemic to (found only in) vernal pools. Wetlands that provide habitat for plants and wildlife only found in vernal pools may rise to the level of ESHA. Vernal pools typically occur on coastal terraces in southern California and historic aerial photographs suggest that they were probably common on Banning Ranch before the site was altered by agriculture and oil field development. There are 10 pools on the site, 8 of which support the endangered San Diego fairy shrimp, a diagnostic vernal pool species.

Rare Plant Communities
Coastal sage scrub in southern California provides habitat for about 100 rare species, many of which are also endemic to limited geographic regions. Southern Coastal Bluff Scrub and Maritime Succulent Scrub are coastal scrub communities found on the bluffs and canyons of the

site and are considered "very threatened." Patches of purple needlegrass grassland were present in many areas in 2012, but because of the continuing severe drought these native grasslands have been reduced to three areas on the southern mesa. Native grasslands are one the most endangered habitats in California. Both the native and non-native grasslands on the site provide dwelling habitat for burrowing animals and significant foraging habitat for numerous species of mammals, birds, and reptiles. Burrowing owls, red-tailed hawks, Cooper's hawks, American kestrels, and peregrine falcons have been observed perching and foraging at various locations within and in the vicinity of the purple needlegrass grassland across the entire site. The riparian habitat found adjacent to drainage areas and arroyos on the NBR site is greatly reduced in extent from its historical distribution and it supports rare and endangered species such as the least Bell's vireo, particularly in the lowlands.

Rare Wildlife

The site also supports rare, threatened, and endangered animal species. California gnatcatchers (CAGN) are obligate, year-round inhabitants of coastal sage scrub plant communities. In the last 60 years extensive southern California suburban sprawl has reduced and fragmented coastal scrub habitats, resulting in a significant decline in California gnatcatcher populations. CAGN is a federally-listed species. Coastal cactus wren are extremely rare. They rely on the prickly pear patches and other cacti found on the NBR site. Historically, cactus wren were documented on the NBR site but have not been seen since 2009. Burrowing owls have been seen on the mesa of the NBR site. Burrowing owls are protected by the Migratory Bird Treaty Act in the United States and Mexico. They are listed as Endangered in Canada and Threatened in Mexico. They are considered by the U.S. Fish and Wildlife Service (USFWS) to be a Bird of Conservation Concern. At the state level, Burrowing Owls are listed as Endangered in Minnesota, Threatened in Colorado, and as a Species of Concern in California, Montana, Oklahoma, Oregon, Utah, Washington, and Wyoming. They are a grassland specialist distributed throughout Western North America, primarily in open areas with short vegetation and bare ground in desert, grassland, and shrub-steppe environments. Burrowing Owls are dependent on the presence of prairie dogs and ground squirrels whose burrows are used for nesting and roosting. Other sensitive species that have been seen on the NBR site include: Loggerhead shrike, yellow warbler, yellow-breasted chat, least Bell's vireo, Belding's savannah sparrow, white-tailed kite, and northern harrier.

Other Biological Factors

Annual grasslands, although dominated by non-native species, provide dwelling habitat for burrowing animals and significant foraging habitat for numerous species of mammals, birds, and reptiles including burrowing owls and many species of raptors. Burrowing owls as well as several species of raptors including red-tailed hawks, Cooper's hawks, and American kestrels, have been observed perching and foraging at many locations. The animals that forage on the site, including ospreys and other raptors, as well as large mammals like coyotes, all play an important role in the ecosystem of the site.

Riparian Habitat

One of the connections linking the Newport Banning Ranch upper mesa and lowlands are the riparian areas and drainages. The applicant has documented four main drainages on the site.

According to the HCCMP, the "small arroyo" is located near the northeastern corner of the site, originating at the eastern property boundary where a concrete culvert discharges stormwater runoff and flows onto the site. Dominant species include riparian vegetation: arroyo willow, black willow, and southern cattail, and mulefat communities. The small arroyo drains into the northernmost portion of the lowland wetlands and supports minimal riparian vegetation at the toe of slope. The small arroyo supports a denser and healthier riparian black willow and mulefat thicket along the northernmost boundary of the lowlands, which supports sensitive species such as the least Bell's vireo. The arroyo may be impacted by abandonment and remediation activities, but is outside of the proposed development footprint.

The Middle Arroyo is located in the upper portion of the site, originating at the eastern property boundary where a concrete culvert discharges stormwater runoff and flows onto the site. Dominant native species include arroyo willow, black willow, and mulefat, as well as some non-natives. The water flows toward the lowland wetlands. The arroyo may be impacted by abandonment and remediation activities. A storm water dissipater is proposed to be constructed in combination with trails in the area of the middle arroyo. The dissipater would control flows from the proposed urban colony into the middle arroyo.

The Southern Arroyo (also called the Main or Large Arroyo), is a high-functioning drainage located near the southern portion of the project site, and includes one tributary swale. This arroyo is the least disturbed drainage on site. Dominant vegetation includes arroyo willow, black willow, mulefat, some non-natives. The Main Arroyo is largely avoided by the development proposal, except for the bridge that spans the arroyo on Bluff Road proposed to connect the South Family Village to the North Family Village. The bridge foundational supports would fill a portion of the arroyo and would result in bluff face and bluff edge impacts to the arroyo's canyon bluffs.

Drainage D is a riparian erosional feature covering about 0.45 acre. The feature is located near the southern boundary of the property in a north-south trending canyon that was created in connection with regional highway improvements during the 1960s. The feature originates approximately 1,000 feet from the property boundary at Pacific Coast Highway (PCH), extending toward PCH for approximately 700 feet. Approximately 200 linear feet of this feature contains riparian vegetation, consisting of arroyo willow and mulefat, however, much of this feature also supports dense patches of non-natives. Drainage D is proposed to be filled and developed with an access road connecting the site to PCH, Bluff Road.

The "North-South Arroyo" on the mesa is depicted on the National Wetlands Inventory, although it is difficult to recognize on the site today due to heavy disturbances from oil operations. The Arroyo begins just south of the Vernal Pool watershed and runs south toward the Main Arroyo, serving as a tributary to the Main Arroyo. Mapping of the North-South Arroyo was not completed, nor was complete watershed mapping of the site. The head of the North South Arroyo is proposed to be graded and filled for development of Bluff Road, which would divide the arroyo from the Vernal Pool Complex. The grading footprint in this area would also impact the wetland habitat around pool E, immediately north of this arroyo.

Defining ESHA

ESHA, as defined in Section 30107.5 of the Coastal Act, is "…any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities." Thus, Section 30107.5 sets up a two part test for determining what constitutes ESHA. The first part is determining whether an area includes plants, animals or their habitats that are either: (a) rare; or (b) especially valuable because of their special nature or role in an ecosystem. If so, then the second part asks whether such plants, animals, or habitats could be easily disturbed or degraded by human activities. If so, then the area where such plants, animals, or habitats are located is deemed ESHA by Section 30107.5.

Defining "rare"

There are several types of rarity, but each of them is fundamentally related to threats to the continued existence of species that naturally occur in larger or more widespread populations. Increasing numbers of species have become absolutely rare, having been reduced to a few hundreds or thousands of individuals. The prognosis for these species is very poor. Another common pattern is for species to be globally rare but locally abundant. Such species only occur at a few places either as a result of natural processes or human perturbations. The remaining populations of tidewater goby and coastal California gnatcatcher, for example, appear to be constrained in their natural distribution as a result of widespread loss of suitable habitat areas. Some species, such as the Pacific pocket mouse, are characterized as "narrow endemics" because they have evolved adaptations to a very limited range of environmental variables (e.g., soil type, temperature, humidity, availability of shelter and forage species etc.), which restrict their spatial distribution. Many other species, such as the least Bell's vireo and San Diego fairy shrimp, have restricted distributions as a result of human activities, especially agricultural and urban development that results in habitat loss. Many natural endemics have also suffered such habitat loss – compounding the risk to them. All these species may be abundant in the few areas where they still occur. However, regardless of the cause of their restricted distribution, the survival of these species is at elevated risk because localized impacts may affect a large proportion of the population with devastating effects. At the other end of the spectrum of rarity are species such as steelhead that are geographically widespread, but are everywhere in low abundance. Some species naturally occur in this pattern and have life-history characteristics that enable them to persist. However, naturally abundant species that have been reduced to low density throughout their range are at heightened risk of extinction, although their wide distribution may increase their opportunities for survival.

Defining "especially valuable"

All native plants and animals and their habitats have significant intrinsic value. However, the "especially valuable" language in the Coastal Act definition of ESHA makes clear that the intent is to protect those species and habitats that are out of the ordinary and special, even though they may not necessarily be rare. As in all ESHA determinations, this requires a case-by-case analysis. Common examples of habitats that are especially valuable due to their role in the ecosystem are those that support rare, threatened, or endangered species, and those that provide important breeding, feeding, resting or migrating grounds for some stage in the life cycle of animal species and that are in short supply (e.g., California sage scrub provides forage and

nesting habitat for the coastal California gnatcatcher and vernal pools and coastal lagoons and estuaries provide nursery habitat for steelhead and the tidewater goby). Habitats may also be especially valuable because of their special nature. Examples include those rare instances of communities that have remained relatively pristine, areas with an unusual mix of species, and areas with particularly high biological diversity (vernal pools for example).

Site Specific ESHA Analyses

The reason ESHA analyses are all site-specific is that there is no simple rule that is universally applicable. For example, a plot of a rare habitat type that is small, isolated, fragmented and highly degraded by human activities would generally not meet the definition of ESHA because such highly impacted environments are so altered that they no longer fit the definition of their historical habitat type. Larger, less isolated, more intact areas that are close to or contiguous with other large expanses of natural habitat are more likely to have a special nature or role in an ecosystem and hence meet the ESHA definition, but "large," "isolated," "intact," and "close to" are all terms that are relative to the particular species or habitat under consideration. What is spatially large to a Pacific pocket mouse is small to a mountain lion or bald eagle. What is isolated for a dusky footed woodrat may not be for a coastal California gnatcatcher. Similarly, an area supporting one or a few individuals of a rare species might not meet the definition of ESHA because scattered individuals might be common and not significant to the species. However, this is relative to the actual distribution and abundance of the species in question. If a few individuals of a species previously thought to be extinct were found, the area would clearly meet the definition. Whereas, if the same number of individuals of a species with a population of 25,000 were found in an isolated, degraded location, the area would probably not meet the definition. A conclusion of whether an area meets the definition of ESHA is thus based on a site- and species-specific analysis that generally includes a consideration of community role, life-history, dispersal ability, distribution, abundance, population dynamics, and the nature of natural and human-induced impacts. The results of such analysis can be expected to vary for different species.

Case-by-case analysis of ESHA necessarily occurs at discrete moments in time. However, ecological systems and the environment are inherently dynamic. One might expect, therefore, that the rarity or sensitivity of species and their habitats will change over time. For example, as species or habitats become more or less abundant due to changing environmental conditions, they may become more or less vulnerable to extinction. In addition, our scientific knowledge and understanding of ecosystems, specific species, habitat characteristics and so forth is always growing. Large numbers of new species are discovered every year. The California Native Plant Society's Inventory of Rare and Endangered Vascular Plants of California grew from approximately 1400 listings in 1974 to over 2100 listings in 2001. New legal requirements, such as the numerous environmental laws adopted in the 1970s, may be adopted that reflect changes in our values concerning the current conditions of natural resources. Consequently, ESHA evaluations may change over time. Areas that were once not considered ESHA may become ESHA. It is also possible that rare species might become less so, and their habitats may no longer be considered ESHA. Because of this inherent dynamism, the Commission must evaluate resource conditions as they exist at the time of the review, based on the best scientific information available.

Federally Designated Critical Habitat as ESHA

The definition of environmentally sensitive area in Section 30107.5 of the Coastal Act shares a common focus with the Endangered Species Act definition of critical habitat for those species listed as threatened or endangered. Specifically, critical habitat for a threatened or endangered species is defined in section 3(5)(A) of the Endangered Species Act (ESA) as:

i. the specific areas within the geographic area occupied by a species, at the time it is listed in accordance with the Act, on which are found those physical or biological features (I) essential to the conservation of the species and (II) that may require special management considerations or protection; and
ii. specific areas outside the geographic area occupied by a species at the time it is listed, upon a determination that such areas are essential for the conservation of the species.

Additionally, the term "endangered species" is defined in the ESA as "any species which is in danger of extinction throughout all or a significant portion of its range" and the term "threatened species" is defined as "any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range."

In other words, critical habitat includes those habitat areas in which species imminently or foreseeably at risk of becoming extinct are located that may require special protection and that are essential to the conservation of those species or those areas not directly occupied by threatened or endangered species but that otherwise have been determined to be essential for the existence of those species.

This definition of critical habitat is similar to the Coastal Act definition of ESHA because endangered and threatened species can, by definition, also be expected to be rare. This common focus on rare species would ensure that those portions of critical habitat so designated due to the presence of a threatened or endangered species would also qualify as ESHA. Additionally, it is often true that those species listed, protected and designated with critical habitat under the Endangered Species Act are recognized as being under imminent threat of extinction due to human induced habitat loss or degradation, or, as stated in the Coastal Act definition of ESHA, "easily disturbed or degraded by human activities."

Although the Commission is not limited to designated critical habitats when defining ESHA, the Commission can rely on critical habitat designations as one of the components supporting an ESHA determination. As detailed below, the Commission finds that portions of the proposed project area that are currently or have previously been specifically designated as critical habitat by the U.S. Fish and Wildlife Service (FWS) due to the recognized and established presence of federally listed threatened or endangered species and/or the importance of these areas to the conservation of threatened or endangered species and that contain the Primary Constituent Elements of gnatcatcher habitat in the form of coastal sage scrub and associated non-sage scrub habitats contained within the areas designated as coastal California gnatcatcher occupied areas by Drs. Dixon and Engel in their April 28, 2016 memorandum qualify as environmentally sensitive habitat areas, ESHAs. The primary constituent elements for coastal California gnatcatchers are (1) coastal sage scrub habitats that provide space for individual and population

growth, normal behavior, breeding, reproduction, nesting, dispersal and foraging; and (2) non-sage scrub habitats such as chaparral, grassland, and riparian areas, in proximity to sage scrub habitats as described for PCE 1 above that provide space for dispersal, foraging, and nesting.

ESHA Determination

Upon Commission direction at the hearing on this item in October 2015 (CDP application no. 5-13-032), Commission staff biologists have more critically reviewed the data and analyses received from the applicant's consultants and others, reviewed new data and analyses, pursued other means of assessing current site conditions (including site visits), and reviewed additional ecological studies and corrections in mapping provided by the applicants, in making their current ESHA determination. While the ESHA determination has changed since October 2015, and the delineations of some sensitive habitat areas have expanded while others have contracted, the site still has been found to support a vast amount of rare and valuable habitat types that rise to the level of ESHA. The Memorandum by Dr. Jonna Engel written 9/2015 continues to apply to the site for many habitat areas, except where the ESHA determination has been modified, as described in the Memorandum (ESHA Memo.) by Dr. John Dixon and Dr. Jonna Engel, included as **Exhibit 13a**.

The revised ESHA Memo. indicates that there continues to be a significant amount of ESHA on the NBR site, over 219 acres of ESHA total, including vernal pools and San Diego Fairy Shrimp, coastal sage scrub communities and Gnatcatcher habitat, purple needle grass grasslands and foraging habitat, Burrowing Owl wintering habitat and foraging habitat, and wetlands (wetlands are described in Findings F. Marine Resources) (**Exhibit 3a**). The Commission concurs with the analysis and conclusions in the ESHA Memo. and hereby adopts it and incorporates its findings, analysis, and conclusions herein.

Vernal Pools and San Diego Fairy Shrimp

Wetlands that provide habitat to plants and wildlife only found in vernal pools are wetlands that may rise to the level of ESHA. There are 10 vernal pools on the NBR site. Vernal pools differ from most seasonal wetlands in that they have a characteristic suite of plant and animal species, an extremely impermeable soil layer, hydrology based only on rainfall, and generally small watersheds. While some wetlands on the NBR site may have been created by human activities, others may have been created naturally, but have been disturbed. The ESHA Memo. states: "there is no way after-the-fact to distinguish the one type of wetland from the other." Either way, it is possible for wetlands with anthropogenic origins to provide ecological functions of vernal pools. The vernal pools on the site meet the definition of ESHA because they are rare, because *they are aggregated and form vernal pool complexes which play an especially valuable* ecosystem role, and because they are easily disturbed and degraded by human activities and development.

San Diego Fairy Shrimp is a federally endangered species only found in Vernal Pools in coastal Southern California. San Diego Fairy Shrimp (SDF shrimp) have been found in 8 pools on the NBR site (Vernal pools: 1, 2, 3, E, G, H, I, J). Vernal pools A and M do not contain SDF shrimp. There may be additional pools with SDF shrimp that previously had inconclusive results and may be subject to additional surveys. The HCCMP acknowledges the interconnection between

the pools, noting that there is a potential for long-term dispersal of sensitive plants and animals between the vernal pools. Unfortunately, the entire watershed on the site has not been mapped. Particularly the complete vernal pool watershed has not been mapped. Because SDF shrimp are extremely rare and must be protected under the federal Endangered Species Act, the vernal pools where they reside are determined to be ESHA.

Coastal Bluff Scrub and Maritime Succulent Scrub
Southern Coastal Bluff Scrub and Maritime Succulent Scrub are recognized as rare plant communities. Both plant communities persist on the NBR site, often found together, mainly along the coastal bluff faces and coastal and canyon bluff tops and they perform important functions by serving as habitat for special status species. These vegetation communities are easily disturbed. Therefore, both Coastal Bluff Scrub and Maritime Succulent Scrub meet the definition of ESHA pursuant to the Coastal Act. While both Coastal Bluff Scrub and Maritime Succulent Scrub (CBMSS) are in the family of Coastal Sage Scrub, they are different communities from each other, and different from the California Brittle Bush Scrub that described below.

California Brittle Bush Scrub and California Gnatcatcher Habitat
California Brittle Bush Scrub (CBBS) on the NBR site is a type of Coastal Sage Scrub (CSS) with a dominance of California Sunflower (*Encelia californica*), also referred to as Encelia Shrubland Alliance. The CBBS is the most common of the CSS communities on the NBR site. The CBBS association is rare in coastal California. This plant community on the NBR site is found to be ESHA because it is rare and because it provides an especially valuable ecosystem function for the federally threatened California Gnatcatcher. Both the CBBS and the Gnatcatcher are easily disturbed and degraded by human activities and both rise to the level of ESHA. Much of the Coastal Sage Scrub (CSS) on the property is still within the area designated as critical habitat for California Gnatcatchers (CAGN) and provides them with valuable foraging area and offers connectivity with the CSS vegetation on the adjacent property. Several biological surveys of the project area have documented CAGN nests and foraging and use areas. The CAGN, a federally listed species which must be protected under the Endangered Species Act, relies on the habitat provided by CBBS in the project site.

Purple Needle grass Grassland
Purple needle grass grasslands (PNGG) have become increasingly rare in California and the Department of Fish and Wildlife finds this vegetation community to be of high conservation value. On Banning Ranch, purple needle grass (*Nassella pulchra*) has occurred in patches of various sizes and with various coverage. Where it occurs with greater than ten percent relative vegetative cover, it is classified as purple needle grass grassland, a rare habitat type that meets the definition of ESHA in the Coastal Act.

In 2012 PNGG was present in many areas. Although small isolated patches of PNGG and patches that were surrounded by industrial development were not identified as ESHA by Drs. Dixon and Engel, they concluded that patches in larger clusters that aggregated to several acres were ESHA due to the rarity of such grassland communities and because PNGG is easily disturbed and degraded by human activities and development. Since 2012 there has been a severe

and continuing drought that has resulted in a general reduction in the vegetative cover of purple needle grass due to a lack of growth, increased herbivory, and death of individual plants. Although there was a significant reduction in the extent of PNGG by 2015, this rare vegetation community was still widely present on the southern mesa. However, by March of 2016 only three areas had sufficient cover to be classified as PNGG. Purple needle grass is still present at low cover and density in many of the areas where it was previously mapped as native grassland. Therefore, PNGG on the project site currently exists in two categories: ESHA purple needle grass grassland and Non-ESHA purple needle grass.

Riparian Habitat
The riparian habitat borders drainage areas and arroyos on the site and is found in areas of the lower mesa and in the arroyos on the upper mesa. Riparian habitat is greatly reduced in extent from its historical distribution in southern California. The riparian habitat on the site rises to the level of ESHA because it is a rare habitat type, it supports rare and endangered species such as the least Bell's vireo, and is easily disturbed and degraded by human activities and development.

Burrowing Owl Wintering and Foraging Habitat
Western burrowing owls (*Athene cunicularia*) are a California Species of Special Concern that are rare in Orange County due to loss of suitable grasslands to development, especially near the coast. Western burrowing owls are often found in burrows created by ground squirrels, of which there are countless in the project location. Most Western burrowing owls nesting in California remain at their breeding grounds throughout the winter, sometimes staying in the same burrows and sometimes wandering within the region. Burrowing owls were thought to have been extirpated in all of Orange County (and most of coastal Southern California), except for a small breeding population in Seal Beach. Two large earthen berms on the project site provide habitat for the burrowing owls near vernal pools H, I, and J and a burrow was found on the southern mesa. The Commission finds these areas to rise to the level of ESHA because the area supports wintering burrowing owls, a sensitive species, and because the area is easily disturbed and degraded by human activities and development. Additionally, the Burrowing Owls use the open native and non-native grasslands as foraging habitat. The ESHA determination made as part of the April 2016 staff report would have protected the burrows as ESHA but not the foraging habitat . As a result, strong criticism of the memo. from professional biologists noted that without the foraging space, protecting the burrows as ESHA was essentially pointless, because there is no other location within the vicinity where these owls can forage except for the open grassland on the Banning Ranch site. Thus, even with their burrow habitat protected, the owls would likely be extirpated from the site. As such, the grasslands of the site rise to the level of ESHA because of the special role they serve as valuable habitat for the sensitive Owl species.

Raptor Foraging Habitat
Both native and non-native grasslands provide important foraging opportunities for both Burrowing Owls and other raptors present on the NBR site. Much of the Mesa of the site is composed of both native and non-native grasses, and while it is used for foraging, delineating a particular, contiguous use area is difficult. While the grasslands that support Burrowing Owl foraging are identified as ESHA, the raptor foraging areas of the site have not been delineated as ESHA. However, if native and non-native grasslands that serve raptor foraging are disturbed as

part of the soil-clean up or development project, they do require mitigation, pursuant to the Habitat Management Plan **Special Condition 14.**

Impacts of Residential and Commercial Development Plan
As proposed, approximately 42.4 acres of ESHA would be impacted due to the residential and commercial development plan (**Exhibit 6**).

Vernal Pools
VP1, VP2, VP3, G, H, I, J, and E are occupied by the federally listed SDF Shrimp. Vernal pools M and A are not occupied by fairy shrimp, but contain vernal pool plants. These features are proposed to be protected within the proposed "vernal pool complex." Vernal pools M and E will be avoided by the revised development plan, but both will be impacted by the clean-up activities. In addition, Vernal Pool E will be immediately adjacent to Bluff Road in the proposed plan, without a sufficient buffer. The Riparian vegetation around VP1, which is part of Vernal pool/wetland habitat, would be directly impacted by the grading footprint for the Urban Colony. Approximately 0.16 acres of impacts to the Vernal Pool watershed would result from the proposed Urban Colony and North Family Village plan and an additional 0.1 acre of impact would result from the proposed Bluff Road.

Wetlands C and CC would be filled by the proposed development of North Family Village, and the proposed Resort Colony would impact the buffer of Wetland MM, as explained under Wetland/Marine Resources Findings below.

Purple Needle grass and Foraging Grassland
Almost all of the PNGG on the site is within the footprint of the abandonment and remediation activities and development plan. The development of the Resort and park and Southern Family Village would impact approximately 28 acres of grassland ESHA on the Southern Mesa of the site (**Exhibit 6**). Pursuant to the HCCMP, a small patch of PNGG is proposed to be created to mitigate for the loss of the grasslands within the development footprint. Non-ESHA PNGG and grassland Foraging ESHA would be permanently impacted by the development of the Bluff Road bridge over the main arroyo due to grading and construction of bridge supports. The staff recommendation alternative, as conditioned, would not support the development of Bluff Road or development on the Southern Mesa and would not include these impacts.

Riparian Habitat
The Small Arroyo, the Middle Arroyo, and the North-South Arroyo contain ESHA riparian habitat that may be impacted by abandonment and remediation activities; however, within these locations, necessary riparian impacts would, only as conditioned, be restored in place. A portion of the head of the North-South Arroyo would be impacted for the development of Bluff Road as a through road connecting the proposed 5 acre park to the North Village, and would impact approximately 0.1 acre of riparian habitat surrounding pool E, which is also considered part of the wetland. Additionally, the Bluff Road bridge spanning the Main Arroyo would have bridge supports that would impact the riparian habitat in the arroyo. Approximately 0.1 acre of riparian habitat would be permanently impacted by the development of the Bluff Road bridge over the Main Arroyo due to grading and construction of bridge supports.

CAGN Habitat and Scrub Communities
The California gnatcatcher (CAGN) specifically prefers to nest and feed in CSS on the mesa. CBBS and the other scrub communities, including southern coastal bluff scrub and maritime succulent scrub, which comprise gnatcatcher habitat, would be significantly impacted by the development plan, as proposed. Approximately 0.25 acres of CBBS and approximately 0.17 acre CAGN habitat area would be permanently impacted by the development of the Bluff Road in two locations: 1) the bridge over the Main Arroyo would impact CAGN habitat due to grading and construction of bridge supports and; 2) the series of culverts proposed near Pool E to support Bluff Road would impact CAGN habitat.

An alternative residential development plan for the Urban Colony and North Family Village, with a reduced development footprint to avoid ESHA and provide appropriate buffers, taking access from 17th Street, as conditioned, could be found consistent with the Coastal Act.

Burrowing Owl Habitat
Two types of area make up burrowing owl habitat on the site, winter burrow areas and foraging areas. The Burrowing Owl burrowing/wintering habitat on the NBR site is a total of 1.17 acres. The Burrowing Owl wintering habitat may be impacted by clean-up activities and 1.3 acres would be permanently impacted by the development of the Urban Colony residential units, Bluff Road, and the proposed 5 acre park. The development plan, as proposed, would not provide sufficient buffers to support Burrowing Owl wintering habitat ESHA.

The development on the Southern Mesa of the Resort Colony, retail, hostel, Southern Family Village, Bluff Road, and the 5 acre park would directly impact more than 28 acres of Burrowing Owl Foraging Grassland ESHA and would impact the Burrowing Owl burrow on the Southern Mesa. Limiting the development to the North Family Village and Urban Colony only, as conditioned, would avoid impacts to the grasslands foraging and wintering Burrowing Owl ESHA completely.

Mitigation Proposal
Most of the impacts to the site would be a result of the proposed clean-up and the mass grading to prepare the site for the housing development. The applicant proposes to offset most of these impacts, as opposed to restoring the resources in place, by creating habitat elsewhere, as a form of mitigation. The applicant's proposal for the mitigation is the Habitat Conservation and Conceptual Mitigation Plan (HCCMP). The HCCMP presents a program for the onsite compensatory mitigation that is designed to mitigate the biological impacts caused as a result of the proposed project. The HCCMP for the mitigation associated with the Newport Banning Ranch Project addresses on-site wetland/riparian establishment mitigation, restoration and enhancement, vernal pool establishment mitigation and enhancement, as well as upland scrub and grassland restoration, for impacts to jurisdictional waters, riparian habitat, vernal pool and seasonal features, and scrub and grassland habitat resulting from proposed oil field clean up and implementation of the development project. As described previously, under previous permits and past Commission actions regarding oil well abandonment and remediation, the Commission has required applicants to restore the habitat impacts in place. Moreover, case law has clarified that

Section 30240 does not allow for the relocation of ESHA. In this case, the applicant proposes not to restore, but to mitigate for these impacts in areas of the site that are not suitable for development and in the proposed open space areas.

The HCCMP has not been updated by the applicant since 2013 and is not based on the site constraints, including the ESHA and the wetlands present on the site as identified by the Commission. It has not been made consistent with the recent revised site plan (of July 2016) and the approved RAP or revised clean-up disturbance area estimate developed as a result of the field-verification process carried out in November of 2015 and March of 2016.

Generally the HCCMP proposes mitigation for impacts to wetlands and vernal pools and other ESHA that the Commission finds are avoidable. The plan proposes to mitigate for the destruction of wetlands by establishing new wetland and vernal pool habitat within the vernal pool complex on the mesa that would be surrounded by newly created purple needle grass.

While the HCCMP does detail the impacts to the CAGN territories containing scrub, it does not detail the impacts that would be caused to rare scrub communities on the site, such as coastal bluff scrub, maritime succulent scrub, and California brittle bush scrub. These communities are rare and sensitive and afforded protection under the Coastal Act regardless of whether or not they support listed bird species. See the ESHA Memo (**Exhibit 13a**) for more information. The plan, as proposed, includes inadequate mitigation for impacts to both purple needle grass and CAGN habitat and no mitigation for the proposed loss of sensitive scrub communities.

The HCCMP includes a Third Party Mitigation 30-acre "mitigation bank" in the lowlands of the site. The applicant has confirmed in writing that a mitigation bank is no longer proposed.
The HCCMP was prepared as a mitigation proposal and assumes that the underlying impacts to the sensitive resources would be approvable under the Coastal Act. Sections of the Coastal Act that protect ESHA and Wetlands enumerate specific, limited uses (only resource dependent uses) that are allowed to cause impacts to these resources, and that may, as a result of the allowed impact, require restoration in place and mitigation for those impacts. While the applicant has proposed mitigation for the impacts of the proposed project, the approved impacts still need to be for an allowable use. The proposal for clean-up work in ESHA and restoration following may be found to be an allowable use, and consistent with the resource protection policies of the Coastal Act, for the reasons stated below, provided there is subsequent in-place restoration, so that the impacts are only temporary. On the other hand, the proposed large-scale development plan which results in the location of new structures within, and permanent impacts to, ESHA is not for a purpose that is allowable, and it would do so despite the fact that it could be redesigned to avoid all of that ESHA and still provide substantial development. That portion of the proposal is therefore not consistent with the resource protection policies of the Coastal Act.

Potential Impacts from Development Adjacent to ESHA
Coastal Act Section 30240 requires that development in areas adjacent to ESHA shall be sited and designed to prevent impacts which would significantly degrade ESHA, and shall be compatible with the continuance of ESHA. The proposed project would reduce the ability of the

ESHA onsite and in surrounding areas to serve as habitat, through both direct and indirect, as well as temporary and long-term, impacts, as described above.

The project would result in a significant change in the type of use and the level of human activity on the site, which would cause significant impacts to ESHA. Activities on the site that result in additional noise or disturbance impacts would negatively impact the sensitive avian species, habitat areas, the water quality of the wetlands, and the presence of rare native vegetation.

Buffers

To ensure compliance with Section 30240 of the Coastal Act, development (aside from resource dependent uses) must be located outside of all environmentally sensitive habitat areas and must not cause significant disruption of the habitat values within those areas. Further, development adjacent to an ESHA must be sited to prevent impacts to the ESHA that would significantly degrade those areas, in part through the provision of a setback or buffer between the ESHA and the development.

A buffer, in the context of the Coastal Commission, is a barrier, "safe zone", or bordering strip of natural habitat or land between ESHA and development or human disturbance. Buffers and development setbacks protect biological productivity by providing the horizontal spatial separation necessary to preserve habitat values and transitional terrestrial habitat area. Spatial separation minimizes the adverse effects of human use and urban development on wildlife habitat value through physical partitioning. Buffers may also provide ecological functions essential for species in the ESHA. The required width for buffers varies depending on the type of ESHA and on the type of development, topography of the site, and the sensitivity of the resources to the particular kind of disturbance.

Buffers are important for preserving the integrity and natural function of individual species and habitats. The purpose of a buffer is to create a zone where there will be little or no human activity; to "cushion" species and habitats from disturbance and allow native species to go about their "business as usual." A buffer area is not itself a part of the ESHA or wetland, but a "buffer" or "screen" that protects the habitat area from adverse environmental impacts caused by nearby development and the activities that come with it. Buffer areas are essential open space between development and ESHA. The existence of open space ensures that development will not significantly degrade ESHA. Habitat buffers provide many functions including keeping human disturbances such as noise, artificial lighting and domestic animals at a distance; reducing the hazards of herbicides, pesticides and other pollutants; and preventing or reducing shading from buildings and any effects of landscaping activities. Buffers also protect against invasive plant and animal species that are often associated with humans and development.

The ESHA on the site should be free from non-resource-dependent development and assigned buffers to adequately protect the identified resource. The Commission staff ecologists recommend buffers for all sensitive vegetation (all CSS communities, Riparian, and PNGG) to be a minimum of 50 feet, except for areas where proposed road encroachments into the buffers would incorporate special features to provide additional physical buffering, in limited circumstances, as addressed below.

Recommended buffers (**Exhibit 3b**) for Vernal pools, Wetlands, and CAGN habitat, and Burrowing Owl Foraging habitat are a minimum of 100 feet, except for roads that incorporate special features to provide additional physical buffering, in limited circumstances, as addressed below.

The recommended buffer for Burrowing Owl wintering habitat is 164 feet or 50 meters. As stated in the ESHA Memo by Dr. Engel dated 9/25/2015:
In order to avoid disturbance to burrowing owls, the California Burrowing Owl Consortium and the California Department of Fish and Wildlife recommend 50-m buffers during the non-breeding season. Given that the existing use at Banning Ranch is by wintering and migrant birds, I recommend that a 50-m (164-ft) buffer be established around the defined burrowing owl habitat, which is in accord with previous Commission action.

In areas where the development plan avoids ESHA, the applicant proposes to have 50 foot wide ESHA buffers, instead of the above recommended buffers according to habitat type. Within these buffers, the applicant proposes to grade 25 feet into the buffer for the construction of the 10 foot wide trails in the buffers. The grading footprint encroachments into the 50 foot proposed ESHA buffer leaves only 25 feet of buffer between ESHA and the construction. In some areas, there would be 0 foot buffers, and in other areas the development plan continues to directly impact ESHA (**Exhibit 5**). Additionally, what ESHA buffers the applicant does offer are proposed to serve as a Fuel Modification zone and be planted with native plant palettes and actively managed in perpetuity, which conflicts with the function and purpose of a true buffer.

While the trails are resource-dependent uses within ESHA and buffers, the other proposed development is not resource dependent development. The proposed grading footprint would only leave 25 feet of intact buffer between the ESHA and the proposed development, which is not sufficient for the protection of the ESHA. A buffer around ESHA is intended to prevent disturbances and impacts. As Fuel Modification zones the buffers would, as proposed, be subject to regular maintenance activities to maintain the native plants selected for the area, to remove non-natives, and to ensure the plants are kept a certain distance spaced apart for Fire safety. Buffers that include regular maintenance activities do not prevent human activity from disturbing the sensitive birds and vegetation. Section 30240 requires development adjacent to ESHA must be sited to prevent impacts to the ESHA that would significantly degrade those areas. Regular landscaping and maintenance activities are forms of development that need to be designed to occur outside of ESHA buffers and prevent impacts to ESHA. Therefore, these activities cannot occur immediately adjacent to areas of ESHA. As proposed for reduced buffers with grading impacts into the buffers, and for regular maintenance of the vegetation as a fuel modification zone, the project is not consistent with Section 30240 of the Coastal Act.

According to the site plan submitted July 11, 2016, the proposed grading footprint for the Urban Colony and surrounding trail would encroach into the buffer leaving a reduced 25 foot ESHA buffer around CSS, Gnatcatcher and Riparian habitat. The proposed reduced 50 foot buffer and additional 25 feet of grading encroachments would have direct impact to the mapped Vernal Pool Watershed, Burrowing Owl wintering habitat buffer, riparian habitat, and would only leave a 25

foot buffer around Vernal Pool 1, 2, and 3, Pool M and Pool J, and the southern edge of Pool E. Additionally, the grading footprint as proposed would impact existing CSS within the restoration areas required pursuant to the settlement agreement.

The proposed grading footprint for the Northern Family Village and surrounding trail would encroach into the proposed 50 foot buffers, leaving a reduced 25 foot ESHA buffer around CSS, Gnatcatcher and Riparian habitat. Again, the proposal would have direct impact to the mapped Vernal Pool Watershed, Burrowing Owl wintering habitat buffer, riparian habitat, and would only leave a 25 foot buffer around Pool G. The applicant proposes to completely remove and grade wetlands C and CC for the development of residential structures. Bluff Road connecting the park to the Northern Village would be constructed with a series of culverts under the road to allow for Wildlife movement. The construction of the road and placement of the culverts would impact riparian vegetation, Gnatcatcher habitat, and CSS at the head of the North-South Arroyo.

The grading footprint around the proposed 5 acre park would encroach 90 feet into the Burrowing Owl wintering habitat buffer and would directly impact foraging habitat.

The grading footprint associated with Bluff Road would have direct impacts to CSS and Gnatcatcher habitat adjacent to the Main Arroyo for development of the bridge supports.

Within the Southern Family village, CSS and Gnatcatcher habitat ESHA in some areas would have 0 foot buffers and the foraging grasslands would be removed by the proposed development plan.

In the Resort and Residential Colony, the grading plan would leave a 25 foot buffer around Wetland MM for the development of the hostel. The proposed reduced 50 foot ESHA buffer and additional 25 feet of grading encroachments for the construction of the southern-most residential structure would only leave a 25 foot buffer Gnatcatcher habitat and CSS and Purple Needle Grass ESHA and the foraging grasslands would be removed by the proposed development plan.

Furthermore, the proposed reduced buffers, in combination with the significant grading encroachments, and planned maintenance of the ESHA buffers, and the project's direct impacts to areas of ESHA, would have detrimental effects on the sensitive resources in adjacent ESHA areas. The current proposal for the development is inconsistent with Coastal Act Section 30240, which requires development adjacent to ESHA to be consistent with the continuance of the habitat areas. As conditioned, a minimum of 50 foot buffers around sensitive vegetation and 100-164 foot buffers around sensitive wildlife habitat and wetlands with no vegetation maintenance activities in the buffers is required.

All ESHA buffers should be planted with native vegetation consistent with and appropriate for the habitat type it surrounds and the buffer should be of sufficient size to avoid degradation of the resource it is designed to protect. The Commission has typically required buffers to be planted in appropriate native vegetation and protected in perpetuity to prevent future development from impacting the ability of the buffer to protect adjacent ESHA.

Fuel Modification in Buffers

As stated above, the proposed reduced buffers with the grading footprint encroachments leaves only 25 feet of buffer between ESHA and the construction in most areas. After construction, the proposed 50 foot buffer would include a 10 foot wide trail, essentially leaving 40 feet of maintained vegetated strips, that the applicant is proposing as ESHA buffers. These ESHA buffers are also proposed to serve as a fuel modification zone.

The Fuel Modification zone proposal includes 20 feet of defensible space from the habitable structures within the proposed development footprint and a 10 foot wide non-combustible trail within the ESHA buffer as zone "A," while the combined zones "B and C" would serve as 40 feet of native, fire-resistant vegetation within the ESHA buffer, subject to maintenance.

The applicant submitted a letter from the City of Newport Beach Fire Department that describes the requirements for the Fuel Modification zones. The property has been removed from the "high fire hazards zone." The letter states that prior to the issuance of building permits, the Fire Department will determine what, if any, additional fuel modification (beyond the proposal above) is necessary prior to the introduction of any combustible material in the area. The letter does not sanction the proposed fuel modification zones as adequate or more than sufficient for fire protection and notes that the site will continue to be monitored and the fire department will require flammable vegetation be treated should it be determined that flammable vegetation exists on the site. The Fire Department reserves the right to, at any time, require thinning or clearing of vegetation 100-120 feet away from habitable structures. If the Fire Chief were to decide that vegetation within 100 feet of habitable structures needed to be cleared for fire safety, under the current proposal, the entire proposed ESHA buffer would be subject to clearing, and up to 50 feet of ESHA itself would be cleared.

It is for these reasons that ESHA buffers should not serve as Fuel Modification zones. Pursuant to Section 30240 of the Coastal Act development adjacent to ESHA must be compatible with the continuance of the ESHA. Fuel modification, because of maintenance, thinning, or clearing, is not considered to be compatible with protection of ESHA. A letter was submitted on 7/5/16 by the Banning Ranch Conservancy summarizing the many instances where the applicant was informed by Staff that fuel modification must be within the development footprint, and outside of ESHA and ESHA buffers. On past permit actions, there have been few exceptions to permit fuel modification within ESHA buffers. It has occurred in areas with significantly vast ESHA buffers (up to 300 feet) or within areas with natural buffers, such as natural topographical features where development was separated from vegetation (5-92-188-A4). That is not the case here. Permitting a site wide fuel modification zone in the ESHA buffer (and reduced ESHA buffer) is not consistent with Section 30240, however there are a few select areas where reduced buffers may be appropriate with mitigation measures, as explained below.

As conditioned, the proposal must include a minimum of 60 feet of defensible space within the development footprint. With 60 feet of defensible space, and a 10 foot wide trail, there would be 70 feet of appropriate fire safety that could be divided into fuel modification zones. If in the event the Fire Department determines that 100 feet of clearance is necessary, then the ESHA

buffers would be intact and would still adequately protect the adjacent ESHA. Only as conditioned can the project be found consistent with Section 30240.

Areas of Reduced Buffers

Despite the proposal for reduced buffers, staff continues to recommend 50 foot buffers for all sensitive vegetation and 100 foot buffers for Vernal pools, Wetlands, Burrowing Owl foragaing habitat, and CAGN habitat (except for roads that incorporate special features to provide additional physical buffering, as addressed below), and 164 foot buffer for Burrowing Owl wintering habitat.

In some instances, reduced buffers may be acceptable to accommodate access to developable space where they can be designed to provide adequate protection of the resource. There are some locations on the subject site where the potential buffer is currently a road or disturbed area and development of such areas can include other measures to buffer the impact and allow a reduced buffer.

Around wetland C and CC there is a "pinch-point" immediately northwest of pool CC that is currently a dirt road and would require a buffer adjustment to merge the two wetland buffers and allow a road to access the 2.9 ac. of potential development area within North Village, as described more specifically in the findings below addressing Wetlands and Marine Quality.

To minimize disturbance of resources, all roads within the development, including roads within habitat buffers, are conditioned to be no more than 50 feet wide, one lane of traffic in each direction, with on-street parking lanes on each side of the street. Bikelanes and sidewalks can only be constructed in areas where there is sufficient space in the identified buildable footprint. Areas around Wetlands C and CC, and between the Urban Colony and North Family Village have narrow development footprints, which may not wide enough to accommodate on-street bike lanes and parallel sidewalks. In these cases trails can be designed to serve as alternatives to sidewalks and bike lanes where none can be provided.

Lastly, trails (both multi-use trails and pedestrian trails) can be located within buffer areas and can be located adjacent to areas of ESHA with conditions to limit the width and total disturbance during construction of the trails. Trails shall serve as options for circulation throughout and around the site to reduce vehicle miles traveled. A trail network is proposed within the lowlands, with connections to the mesa, and across the arroyos. Multi-use trails can also serve as secondary access points for Fire and other Emergency services to access residential and commercial development areas. As conditioned, the grading footprint for a 10 foot wide trail shall be no wider than 10 feet, and the grading footprint for a 20 foot wide multi-use trail shall be no wider than 20 feet.

Conformity of Proposed Residential and Commercial Development with the Coastal Act's ESHA Policy

Although much of the applicant's proposed development in the northern portion of the mesa would be within the developable areas shown on the constraints map, much of it would also extend beyond those limits into the buffer areas for various sensitive resources, and even have

direct impacts on the sensitive resources themselves. In the central and southern portion of the mesa, the applicant's proposed development would cover extensive areas of ESHA. Under the proposal, approximately 72 acres of the site would be developed with roadways, housing, retail/commercial space, and resort development, and oil operation areas. The proposal includes direct impacts to approximately 42 acres of ESHA and Wetlands, and additional impacts to buffers. The proposed Urban Colony and North Village, combined would impact less than 2 acres of ESHA and Wetlands and could be designed to avoid these impacts. The Southern Colony, including the park and Resort Colony and Bluff Road, would impact approximately 40 acres of ESHA (See **Exhibits 5 and 6**).

There are approximately 64 acres of Burrowing Owl foraging grasslands on the Southern Mesa of the site that are comprised primarily of purple needle grass, non-native grasses, and salt grass. The development plan of July 11, 2016 would have impacts to approximately 36 acres of Burrowing Owl foraging ESHA, as well as some CSS and CAGN habitat.

Residential and commercial development is not a use dependent upon these resources, and the development would completely eliminate the resources in the location where the development is proposed. Thus, such development is inconsistent with section 30240, and the project is being conditioned to limit the scope of this development to the developable areas.

In a natural environment there are often wildlife and habitat corridors. For example, in the region of coastal Orange County, the Santa Ana River and surrounding open spaces provide a wildlife corridor for wildlife, specifically birds, to reach the Pacific Ocean from Inland areas. On the NBR site, there are wildlife corridors that connect the open spaces in the form of the arroyos and vernal pool watersheds, as well as lowlands. Section 30240 states that development in areas adjacent to environmentally sensitive habitat areas (ESHA) shall be sited and designed to prevent impacts that would significantly degrade those areas, and shall be compatible with the continuance of those habitats. There is significant ESHA on the NBR site such that any development would be located within close proximity to some habitat areas, and therefore is required to be sited and designed to prevent impacts to, and be compatible with the continuance of those habitats. In this case, that would include development that preserves the site's natural connectivity.

Occupants of the proposed residential communities are likely to have domestic animals such as dogs and cats. Domestic pets can enter sensitive habitat areas and disturb wildlife, compete with wildlife for resources, or hunt wildlife. In order to prevent these disturbances, the project has been conditioned to include perimeter fencing, walls, and gates along the open spaces areas to deter domestic pets from entering conservation, open space areas. In order to prevent fragmentation, these boundaries must be designed in order to allow for the movement of wildlife, including coyotes.

The proposed 5 acre park near 16th street would occupy space between the North-South Arroyo and the Main Arroyo. The construction of Bluff Road within the fault-zone setback would impact a portion of the North-South Arroyo and vegetation of Pool E with a series of culverts supporting the road. Bluff Road would fill a portion of the Main Arroyo for bridge supports and would directly impact the burrowing owl wintering habitat buffer and impact the foraging habitat and would separate the North-South Arroyo from the Vernal Pool Complex, as well as impact several areas of sensitive habitat, all of which would significantly degrade the connectivity of the

site and would not be compatible with the continuance of habitat areas. The proposed plan would not be consistent with Section 30240.

In order to preserve site connectivity and prevent impacts to ESHA and Wetlands, **Special Condition 1** requires revised plans that eliminate the proposed segments of Bluff Road where it would directly impact ESHA and as a through road from PCH. The project, as conditioned, does not allow residential and commercial development and associated infrastructure to occur within areas of ESHA and wetlands and buffers, so the proposed access, Bluff Road, cannot be constructed. Therefore, the only access to this site that can be constructed without impacting ESHA and Wetlands would be from 17th street.

The elimination of Bluff Road from the plans provides for an ecological connection in this area on the mesa situated between the Main Arroyo and the North-South Arroyo and adjacent to the vernal pool complex and is critical for the site's overall habitat connectivity.

Further, Section 30250 requires that new residential and commercial development be located within or next to areas of existing developed areas and where it will not have significant adverse effects, individually and cumulatively, upon coastal resources. The proposed Bluff Road developed through the site would impact habitat areas of federally threatened species, would impact areas of ESHA, and would have significant adverse effects. Bluff road as proposed would divide the North-South arroyo from the vernal pool complex and would divide the watershed. The development plan would have impacts on habitat connectivity and would locate high intensity development adjacent to habitat areas, and cumulatively would lead to fragmentation of the wildlife corridors.

Additional impacts from the loss of habitat linkages due to the current proposal's physical impediments include structures houses, fences, roads, as well as disturbances from noise, light, domestic animals, and other human activity which would all intensify at the site and would be detrimental to the existing habitat and wildlife. Measures to ensure that the development does not have a significant individual or cumulative adverse impact on coastal resources would include preventing development in the resource areas and protecting the buffers per **Special Condition 1**, maximizing the amount of open space and providing wildlife overpasses or underpasses for free movement across the site as required in the Final Habitat Management Plan by **Special Condition 14**, minimizing the amount of site division due to development and reducing the density and intensity of development areas immediately adjacent to natural corridors as required by **Special Condition 1**. The proposed project does not provide for these measures. In order to prevent the introduction of non-native plants to the habitat areas of the site, **Special Condition 4** requires a revised landscaping plan and **Special Condition 5** requires submittal of a revised lighting plan that utilize "dark sky" technology and lighting directed away from areas of ESHA and wetlands. Within the residential and commercial developments all structures are required to have bird-safe glass and all open space and conservation areas shall have perimeter fences and barriers that are safe for wildlife movement but prevent domestic animals from entering conservation areas per **Special Condition 2.** Only as conditioned can the project be found consistent with Section 30250 to ensure that new residential and commercial development on the site will not have cumulative significant adverse effects on the site's connectivity. During grading, site preparation, and the construction of the residential and commercial developments, **Special Condition 13** requires barriers around sensitive habitat areas. **Special Condition 14**

requires a Final Habitat Management Plan for construction phase rare plant protection measures are included, dust control plans, and biological monitoring of avian species.

As described above, there are aspects of the proposed plan involving residential and commercial development that are inconsistent with the resource protection policies of the Coastal Act in various ways. In accordance with Section 30240(a) of the Coastal Act, ESHA shall be protected against any significant disruption of habitat values and only resource dependent uses are permitted within ESHA. Resource dependent uses are limited to trails, public accessways, low impact campgrounds, interpretive signage and use, and habitat restoration. The proposed residential developments can be located outside of ESHA and wetlands. **Special Condition 1** requires revised plans for the entire development plan and requires the residential development be designed and sited outside of ESHA and wetlands and provides the necessary buffers. The condition precludes development within the protected resources, requires habitat buffers, and prevents development between the North-South Arroyo and the Main Arroyo, and details the areas of reduced buffers for the construction of a road only around pools C and CC. **Special Condition 10** also requires dedication of the Open Space Conservation areas to restrict use and create public lands, along with **Special Condition 28** for a deed restriction, and **Special Condition 11** restricts the use of the trails within the Open Space Conservation areas while **Special Condition 10** ensures public access and recreational use of the Open Space areas. **Special Condition 12** which requires a Maintenance and Management plan for the open space.

Special Condition 14 requires is a Final Habitat Management Plan which will detail the restoration, mitigation, and enhancement proposed and required for the impacts to the sensitive habitat areas and wetlands and details monitoring of the habitat both during construction and after restoration. The condition requires a plan to enhance the buffers of Wetlands C and CC and the vernal pool complex. Prior to the clean-up activities and soil disturbance, the top 6 inches of wetlands would need to be preserved and stockpiled for later use, according to the plan. A qualified biologist is required to monitor the implementation of the HMP and a long-term monitoring plan is required for a minimum of 5 years after restoration. Only as conditioned to confine residential and commercial development to areas outside of ESHA, buffers, and wetlands can the project be found consistent with section 30240.

The portions of the proposal that would protect existing habitat, the 329 acre Open Space Preserve, are consistent with Section 30240 and can be permitted.

Oilfield Abandonment and Remediation Activities in ESHA

While there are a variety of regulations[3] mandating that proper oilfield abandonment and infrastructure removal activities be conducted and completed as part of both individual well shutdowns and full oilfield closures, compliance with these requirements is typically the obligation of the oilfield operators on the site. However, in this case, NBR has entered into an agreement with the operator of the Banning Ranch Oilfield and assumed responsibility for

[3] These regulations include those of state agencies such as the California Division of Oil, Gas, and Geothermal Resources, the California Department of Toxic Substances Control, and the Regional Water Quality Control Board as well as relevant local agencies such as the Orange County Health Care Agency. The specific governing regulations depend on a variety of factors including the location of the operation, the type of operation, presence of contaminated material, and presence of environmental resources.

carrying out the abandonment process in exchange for the operator's cooperation in relocating its operations into the "oil remainder areas," the roughly 15 acre portion of the site that is proposed to remain in use for oil and gas production.

The oilfield operator, Horizontal Development LLC has submitted a coastal development permit application (CDP No. 9-15-1649) that includes some clean-up activities and a variety of future oil and gas production, processing, storage, and transport activities that it proposes to pursue within the oil remainder areas. Without NBR's current proposal to abandon oilfield operations throughout most of the site and carry out commercial and residential development in those areas, the oilfield operator would be required to carry out the oilfield shut-down, infrastructure removal, and clean-up activities at a future date when it discontinues oil production. This latter approach is the more typical and standard process for oilfield abandonment. However, the current condition of the oilfield would also need to be addressed even without NBR's current proposal. For example, known areas of contamination that pose a threat to human health or environmental resources would need to be cleaned up and removed along with derelict and abandoned equipment, infrastructure, and materials. Several agencies, including the Regional Water Quality Control Boards and Department of Conservation, have been working for many years to address these types of issues on the Banning Ranch Oilfield and would continue to do so if oil operations there were to continue into the future. The continued work of these agencies would result in significant improvements on the site compared to current conditions. Specifically, resolution of these past, recently completed, and ongoing efforts and investigations by state and federal resource agencies will significantly improve the existing conditions on the site:

- Commission Consent Cease and Desist Order/Restoration Order No. CCC-15-CD/RO-01 requires 18.45 acres of native coastal sage scrub, grassland, wetland and riparian habitat restoration on the site within areas two through six on the map included as **Exhibit 15**. The Orders also require passive restoration, i.e. cessation of mowing across the entire site, except for in limited strips, as necessary for fire protection;
- Commission Consent Cease and Desist Order/Restoration Order No. CCC-15-CD/RO-01 requires 0.4 acres of concrete debris to be cleaned-up and removed to an appropriate location;
- Commission Consent Cease and Desist Order/Restoration Order No. CCC-15-CD/RO-01 requires abandonment and closure of 17 wells, and removal of the remaining wells addressed by the 2015 Consent Orders that are located outside the oil remainder areas if NBR does not seek authorization for the wells, or the Commission does not authorize the wells. The well abandonment work also will include removal of all pipelines, power lines, pumps, well pads, other equipment, infrastructure, and visibly contaminated soil associated with those wells, as required California Department of Conservation, Division of Oil, Gas, and Geothermal Resources regulations;
- The Santa Ana Regional Water Quality Control Board requires, in compliance with its Cleanup and Abatement Order No. 01-77, that NBR partner Aera Energy

and the oilfield operator carry out 2.87 acres of wetland restoration and ongoing soil and water clean-up and remediation activities within the lowland portion of the site;

- As described in lease inspection reports and deficiency letters, prior and ongoing investigations by the California Department of Conservation, Division of Oil, Gas, and Geothermal Resources indicate that extensive areas of derelict equipment, abandoned infrastructure and debris located throughout the site need to be removed and disposed of at a certified disposal facility;
- The extensive mapping and enhanced understanding now available of the existing sensitive habitats, wildlife, and vegetation communities on the site will allow for significant improvements in environmental stewardship as part of any ongoing and future operations.

Clean-up of Oilfield Impact Sites

As shown by the total estimated historic oilfield footprint in **Exhibit 19** (areas NBR has shown through historic aerial photographs and/or field surveying to have evidence of direct or indirect use for oil production), much of the Banning Ranch Oilfield has been used at some point over the past several decades for oil and gas production or support activities. Within this total historic use footprint is a smaller footprint of areas that have been shown in NBR's analysis - which included field survey work and photo-documentation provided to Commission staff - to contain materials left over from this historic use that would be required to be cleaned-up and removed once oilfield operations cease and the oilfield is properly abandoned. This smaller footprint – the estimated clean-up areas – is shown in **Exhibit 21**. Compared to the map that was provided as an exhibit to the staff report for the October 2015 hearing, this current map shows an overall reduction in estimated clean-up disturbance area of more than 25 acres. This reduction is a result of the field survey work carried out by NBR consultants in November of 2015 and March of 2016. It is important to note that not all of the areas highlighted in this map would be excavated and/or graded as part of clean-up, and even though it integrates the results of field survey work, the footprint it shows is still intended to depict a "worst case" disturbance area[4]. The specific activities that would occur within this area would vary from more intensive clean-up approaches such as grading, excavation, and demolition of structures to less intensive approaches, such as using hand labor or cranes from existing roads to pick up and remove equipment, surface pipelines, and power poles from within habitat areas. Which clean-up techniques would be used would be based on the size, location, and type of clean-up target, the sensitivity of the surrounding habitat, and the applicable clean-up requirements.

These clean-up requirements are the same as those that would be triggered by the closure and abandonment of any oilfield area and are intended to ensure that infrastructure, equipment, wastes, and contaminants resulting from oil and gas production activities are not left behind where they can pose a risk to the environment or public health and safety. Funding for such

[4] This "worst case" representation is intentional and typical of this type of mapping and analysis as it prevents complications that may arise from decisions based on an under-representation of factors such as material volumes, impact levels, and the timing and duration of work.

closure and clean-up activities is a necessary and assumed business cost for oil and gas operations, but as an additional assurance that funding is available, current regulations for oil and gas wells and production facilities allow for surety bonds to be established that are intended to cover the costs of well abandonment and facility clean-up. On the Banning Ranch Oilfield site, 94 wells are covered by such bonds. In coastal Orange County, requirements for an oil operator to engage in the proper and complete end-of-life clean-up of its facility are typically imposed by state and local agencies such as the Santa Ana Regional Water Quality Control Board, California Department of Conservation Division of Oil, Gas and Geothermal Resources, the Orange County Health Care Agency, and the Orange County Fire Authority. As described in more detail above, some of these agencies have outstanding requirements for clean-up and removal of materials from the site that have yet to be addressed by NBR or the oilfield operator.

At the Banning Ranch Oilfield site, the proposed clean-up of known and suspected areas with infrastructure, equipment, wastes, and oil contamination needing to be removed as part of oilfield closure would include the removal of surface and buried oilfield infrastructure (such as pipelines, wells and utility poles) and the excavation of oil contaminated soils and historic roads that contain dispersed gravels and asphalt-like materials. In some locations, NBR's proposed oilfield clean-up activities would occur in ESHA and result in unavoidable impacts to ESHA. The approximate location and extent of the proposed activities in ESHA are shown graphically in **Exhibit 18**, and include clean-up of areas within and adjacent to areas historically used for oilfield activities. Although Commission staff has worked closely with NBR to accurately depict on **Exhibit 18** the anticipated disturbance footprint of clean-up activities on sensitive habitats, the actual disturbance area is likely to be somewhat different as new targets are discovered during the course of clean-up, or other targets are eliminated or removed with less than expected disturbance. For this reason, **Exhibit 18** is purely an estimate, and the disturbance area calculations it includes are also estimates and subject to revision based on the results of ongoing clean-up activities. The process of revising these estimates to determine the actual impact area is discussed further towards the conclusion of this section.

Historic Oilfield Use Areas and ESHA

As indicated in **Exhibit 18** and by comparing **Exhibit 19 and Exhibit 3a**, the Commission finds that some of the proposed clean-up areas currently support ESHA despite their historic use for oil operations. This situation may have arisen because of the biological traits of these areas prior to their oilfield use (for example, surface pipelines may have been placed within sensitive habitats) persisted despite that use, and/or because the long history and fluctuating use patterns and intensities of operations on the Banning Ranch Oilfield allowed sensitive vegetation communities and habitats to return, recover, or establish in areas of historic oilfield use (such as surrounding oilfield features that have been rarely accessed since initial installation or long ago abandoned). For example, over 400 of the oil wells on the site have been abandoned and are no longer in use (including all of those wells in the southern portion of the mesa area designated as ESHA for the burrowing owl), often meaning that the access roads, utilities, and pipelines serving these wells have also not been used or maintained for an extended time period, which has allowed vegetation and wildlife to re-establish.

Additionally, sensitive habitat has also developed around and within areas historically used as roads in which gravel or asphalt-like-material (often "tank bottoms" or other oil production wastes) was long ago dispersed as a roadbed or dust control measure, but which since has become fragmented, buried, and interspersed with intact plant communities. In some locations on the site, sensitive habitat has also developed over the top of areas in which oil contaminated soil is present or oil contaminants have spread belowground into sensitive habitat areas. As native vegetation has recolonized, recovered, or established in areas of historic oilfield operations, associated wildlife activities such as foraging, breeding, and nesting have also returned to those areas. As indicated in **Exhibit 18** some of the vegetation communities and habitat uses that have developed in these areas that contain oilfield wastes now support their designation as ESHA.

Further, while in some cases the discrete area supporting particular clean-up targets may not be sensitive habitat, ESHA is present in areas surrounding the proposed clean-up targets such that in order to effectively remove the target, it may be necessary to clear some habitat to facilitate access and excavation of the proposed target or in order to confirm that complete removal of the clean-up target has been achieved. This is reflected in the disturbance footprint of clean-up activities shown in **Exhibit 21**, most clearly around features such as power poles, abandoned well sites, and surface pipelines that are depicted with buffers of five to twenty-five feet around them, in order to show areas that may be cleared or disturbed for use as vehicle or pedestrian access.

Oilfield Closure and Clean-up Regulations

Several state and local agencies have regulations that apply to the cessation and closure of oilfield operations and clean-up of wastes and oil contamination within oilfields, and NBR has developed and submitted (or plans to submit) plans to these agencies that detail their proposed activities.

To meet the requirements of the Santa Ana Regional Water Quality Control Board (RWQCB) and the Orange County Health Care Agency (OC Health), NBR developed a Remedial Action Plan (RAP). This plan included proposed clean-up targets, clean-up methods, and clean-up levels. During its consideration of the RAP, OC Health determined that it had insufficient staff resources to complete its review and elected to defer to the RWQCB for approving the proposal. This RAP was revised by NBR on September 16, 2015, and amended on November 5, 2015 with a variety of changes related to clean-up levels and soil sampling and testing. On December 15, 2015, the RWQCB issued a letter to NBR that concurred with the amended revised RAP and imposed eight conditions.

The RAP essentially establishes a roadmap for how the required oilfield closure and clean-up will be achieved. It describes the various clean-up targets (infrastructure and pollutants) and establishes the threshold levels for various types of contaminants. These thresholds are based on the type of contaminant (level of toxicity, potential impact on the environment and public health), as well as the depth and location of the contaminant and the potential future use of the area in which it is located. For example, the most stringent clean-up levels are applied to the top 15 feet of soil within areas of proposed future residential use and the least stringent are applied to

soil deeper than 15 feet below the surface in upland areas of proposed open space and lowland areas deeper than 3 feet below the surface. Although the RAP establishes these thresholds, the land use designations approved by the Commission for particular areas on the site (commercial/residential or open space/park land) will determine which clean-up thresholds would be applied there.

Implementation of the RWQCB approved RAP would include extensive activities throughout the Banning Ranch Oilfield site, including areas either within or adjacent to designated ESHA. Such activities would include the excavation of oil contaminated soils, abandonment or re-abandonment of wells, excavation of roadbed materials, and removal of pipelines, power poles, metal tanks, vessels, structures, pumps, and equipment. In addition, NBR would also excavate and remove soil from all areas known or anticipated to contain contaminated materials. These areas are referred to as areas with Recognized Environmental Concerns or Potential Environmental Concerns (RECs/PECs). As discussed below, some of these activities would occur within and result in adverse impacts to ESHA.

Oil-treated Roads

NBR's Abandonment Plan includes the removal of all existing and historic access roads on the site that have been verified during ground-truthing efforts to contain asphalt-like materials, gravels, or concrete road bed materials. Road areas identified for clean-up include several historic road alignments that now support sensitive vegetation and habitats designated as ESHA, either within the historic alignment or adjacent to it. An example of this type of area is provided in **Exhibit 20**. NBR proposes to grade to a depth of approximately 12- to 18-inches all of these road alignments in order to collect and extract roadbed materials. In total, NBR's initial estimates were that up to 108,000 cubic yards of roadbed material would be collected during this effort (however, this is expected to be an over-estimate since it pre-dates the reduced clean-up area that was developed through the field survey process). Once collected, this material would be taken to the proposed onsite concrete crushing/processing area, broken down and buried within the proposed onsite disposal pits. Consistent with the RWQCB-approved RAP, all asphalt-like-material in these pits would be placed no shallower than 15 to 20 feet below final grade elevations.

Areas of Recognized or Potential Environmental Concerns

Based on the historical investigations and soil testing it carried out, NBR initially estimated that 27 areas on the site had recognized or potential environmental concerns (RECs/PECs). Additional investigations indicated that contaminated material was indeed present at 11 of these 27 sites. Seven of these areas showed crude oil contamination at the surface or in shallow soils and one area includes all sites of potential historic oil containment sumps. The other areas were identified because historic activities that occurred may have resulted in the release of oil or other contaminants into the soil. Such activities include the current or historic presence of steam or air injection facilities, stockpile areas, sumps, workshops, storage sheds, electrical transformers, fueling areas, and field offices. An example of this type of area is provided in **Exhibit 20**. As part of its Abandonment Plan, NBR proposes to carry out additional testing and investigation of these areas and to excavate and remove any contaminated soils found. Based on the level and type of contamination, this removed soil would be taken to the onsite bioremediation areas for

treatment and onsite disposal or transported offsite for disposal at a certified receiving facility. NBR's initial estimate is that up to 163,000 cubic yards of contaminated material would be excavated from these sites and other select areas around historic oil sumps and wells (however, as noted above, actual volumes may be lower).

Wells and Infrastructure

In addition to the removal of road bed materials and contaminated soils, NBR also proposes to work with DOGGR to authorize the abandonment of 66 active or idle production or injection wells. These wells include the 42 that remain within the central portion of the upland mesa and 24 within the lowland area. Abandonment and removal of these wells under DOGGR regulations requires that "any auxiliary holes, such as rat holes, shall be filled with earth and compacted properly; all construction materials, cellars, production pads, and piers shall be removed and the resulting excavations filled with earth and compacted properly to prevent settling; well locations shall be graded and cleared of equipment, trash, or other waste materials, and returned to as near a natural state as practicable." In addition, DOGGR also typically requires the removal of all utility poles, transformers, pumps, and pipelines serving the abandoned well. In some locations, the proposed removal of this infrastructure or contaminated soil around the well site would result in the loss of ESHA. In addition, because oilfield operations on the project site would only remain within the approximately 17 acre area in the lowland portion of the site (the "oil remainder areas"), all pipelines, utility poles, pumping units, storage equipment, supports, and pads throughout the rest of the site would be collected and removed. Because much of this infrastructure was installed many years ago or has been essentially abandoned in place, in many locations it is surrounded by areas of intact habitat areas that have been identified as ESHA. Removal of infrastructure and equipment from such areas would result in adverse impacts to ESHA associated both with direct extraction activities (excavation and disassembly) and activities associated with removal such as the creation and use of access routes and staging areas.

Total Impacts

The Commission's best estimate at this time is that in total, approximately 59 acres of ESHA across the site would be disturbed or removed during the implementation of NBR's proposed oilfield clean-up operations and excavation and removal of the targets described above. This area estimate was developed through a comparison of two maps:

1. **Exhibit 21** - The estimated disturbance footprint of clean-up operations developed by NBR partner Aera Energy and its consultants through analysis of historic oilfield use areas and verified through site-wide field surveys carried out in November of 2015 and March of 2016.
2. **Exhibit 3a** - Vegetation mapping of the site carried out by NBR biological consultants and reviewed and described by Commission staff ecologists in the memorandum provided in **Exhibit 13a**. As detailed in that memorandum, areas were included on this map as ESHA that support rare and easily disturbed plant communities, wildlife species, and habitat areas.

While this estimate of 59 acres of potential ESHA impacts is based on the most accurate information available on both the type and location of clean-up targets and ESHA, the nature of the clean-up work being proposed and its targets – some of which have little or no surface expression - means that the actual impacts of the clean-up work on ESHA may be less than or greater than 59 acres. The actual affected area would increase if additional clean-up targets, such as oil contaminated soils that extend further than estimated, are discovered once clean-up and excavation work begins and the actual affected area would decrease if some clean-up targets, such as areas of dispersed gravel, are abandoned in place, removed in a way that results in a disturbance footprint that is less than estimated, or are not as extensive as initially anticipated.

During its review of NBR's proposed project, Commission staff worked closely and collaboratively with NBR and the staff of the Santa Ana Regional Water Quality Control Board (RWQCB), as well as the California Department of Conservation, Division of Oil, Gas and Geothermal Resources (DOGGR), to ensure that the proposed clean-up activities address each agency's regulatory requirements and guidelines while also avoiding if possible, and at least minimizing adverse impacts to any wetlands and environmentally sensitive habitat areas that may be present in or adjacent to potential work areas.

In approving NBR's Remedial Action Plan (RAP), the RWQCB is requiring several conditions that:

- Prohibit implementation of the RAP until RWQCB staff issues a Section 401 Water Quality Standards Certification, the U.S. Army Corps of Engineers issues a Permit under Section 404 of the Clean Water Act, and the Commission issues a CDP for the proposed project;
- Require that NBR consult with RWQCB staff regarding any proposed modifications to the scope and location of activities included in the RAP;
- Confirm that the RAP may be further revised during the Commission's review process - particularly by locating contaminated soil treatment, clean soil excavation, and material and equipment stockpiling activities within the Commission approved development footprint and away from sensitive resource areas;
- Authorize NBR to use clean treated soil as backfill for excavated contaminated soil in the lowland portion of the site;
- Authorize NBR to minimize soil disturbance in areas in which soil testing indicates an absence of contaminated materials; and
- Require that mitigation measures included in a CDP be carried out to address impacts to sensitive resources or wetlands that occur during implementation of the RAP.

Division of Oil, Gas, and Geothermal Resources
The Department of Conservation Division of Oil, Gas, and Geothermal Resources (DOGGR) also has authority to direct the design, scope, and implementation of oilfield clean-up and abandonment activities.

Regardless of the outcome of this coastal development permit application, the owner of mineral rights for the Banning Ranch site, Horizontal Drilling LLC, is pursuing a coastal development

permit that would allow it to condense the operations that currently occur throughout the site into the 17 acre "Oil Remainder Areas" identified in **Exhibit 2**. Nevertheless, NBR could still apply to the Commission to continue use of 24 existing wells within the larger site[5] or apply for permits for an expanded operation. Therefore, NBR has not yet formally initiated the process of seeking permits from DOGGR for abandonment activities. However, NBR has engaged in preliminary discussions with DOGGR regarding review timing and permitting needs. Commission staff have also been in close coordination and consultation with DOGGR staff on the scope and focus of its potential future review. The following provides a description of the three primary elements of that review.

When oilfield operations cease, DOGGR requires that wells be properly abandoned and production-related equipment, materials, and buildings/structures that hold or held production equipment be removed, including those that pose a potential threat to human health and safety or environmental resources. The primary focus of DOGGR's review is to ensure that oil and gas production wells are closed and capped in such a way as to minimize the potential for fluid movement between subsurface zones. The primary way this is achieved is through its well abandonment permit process. Prior to closing and capping the 66 active or idle wells NBR has proposed to abandon, NBR would be required to obtain from DOGGR a well abandonment permit for each well. Through these permits, DOGGR would ensure that NBR complies with a standardized closure, capping, testing, and oversight process established under its regulations. Because well abandonment permits are only valid for 12 months, NBR has not yet initiated the process of applying for or obtaining these permits.

In addition to well abandonment, DOGGR also has a role in reviewing and regulating the closure and abandonment of oilfield operations through its requirements on lease restoration. These requirements are triggered by the plugging and abandonment of the last well on an oil or gas lease and call for submittal of a plan for the removal of aboveground equipment, infrastructure, and hazardous materials from within the lease area within one year of the plugging and abandonment of the last well on a lease. If the 66 wells proposed to be abandoned as part of the project include the last well or group of wells on an oil or gas lease, NBR would be required to submit a lease abandonment plan to DOGGR for review.

Finally, DOGGR staff would also review and provide input on the proposed project through its construction review process. This is a process designed as a way for DOGGR technical staff to provide input and recommendations on the design and configuration of construction activities within close proximity to abandoned oil and gas production wells, with the goal of retaining access to the well heads without the need to remove development. Once NBR has a more refined development configuration that includes details on the specific location of roads and structures, DOGGR staff would be available to assist with construction review.

[5] As established in Settlement Order

Conformity of Proposed Oilfield Clean-up Activities with the Coastal Act's ESHA Policy
As described above, the Commission has determined that NBR's oilfield clean-up operations will result in unavoidable ESHA impacts, cumulatively affecting an estimated 59 acres of ESHA, as shown in **Exhibit 18**. In order for such impacts to be found consistent with the Coastal Act's ESHA protection policy, Section 30240(a), these clean-up operations must be "uses dependent on those [ESHA] resources" and cannot result in "any significant disruption of habitat values."

Resource-Dependent Use
Clean up activities, per se, are clearly not a use that is dependent upon the ESHA resource. Such activities are focused on the removal of contamination in response to pollution that is related to historic oil field operations that only incidentally were located in sensitive habitat. However, habitat restoration is obviously dependent on the resource being restored, as one needs to work within a sensitive resource in order to restore it, and the clean-up of pollutants could be an important part of such restoration, as discussed in more detail below.

Significant Disruption of Habitat Values
The ongoing presence of oil contaminated materials in ESHA is currently resulting in significant disruption of habitat values. As noted in Romero-Zerón (2012), environmental pollution caused by petroleum is of great concern because petroleum hydrocarbons are toxic to all forms of life. Oil contaminated materials and soils disrupt habitat values by placing both plants and animals within that habitat at risk of poisoning and physical injury due to ingesting or interacting with those contaminants, and can restrict the abundance and diversity of wildlife and vegetation communities, limit their growth rates, reproductive potential and survivorship. Non-volatile heavy fractions of crude oil such as those frequently found in high concentrations in soil testing from proposed clean-up sites on the Banning Ranch Oilfield tend to be absorbed by the soil and persist at the site of release, serving as a long-term source of harm for wildlife through skin contact or through intake of contaminated water or food. These heavy fractions of crude oil consist mainly of napthene-aromatics and poly-aromatic compounds that are carcinogenic, and long exposure to these compounds has been shown to lead to tumors, cancer, and failure of the nervous system in mammals (Abha and Singh 2012). Petroleum is toxic and can be lethal depending upon the nature of the petroleum fraction, the way of exposure to it, and the time of exposure. Chemicals in crude oil can cause a wide range of health effects in people and wildlife, depending on the level of exposure and susceptibility. The highly toxic chemicals contained in crude oil can damage any organ system within an animal's body, including the nervous system, respiratory system, circulatory system, immune system, reproductive system, sensory system, endocrine system, liver, kidney, etc. and consequently can cause a wide range of diseases and disorders (Costello 1979). Oil contaminated soil may also restrict water movement, limit invertebrate abundance and diversity, and may serve as a physical and chemical impediment to the growth and spread of many native plant species.

In addition to the detrimental effects of oil contamination, oilfield equipment, infrastructure, and other materials may also present other sources of disruption for sensitive habitat areas. Asphalt-like roadbed materials and oilfield infrastructure such as aboveground pipelines, well pads, pumps, and utility poles in ESHA physically limits and displaces habitat, restricting the growth,

connectivity, and expansion of vegetation, impeding wildlife movement, and potentially serving as a source of wildlife entrapment, injury, and mortality. Old pipelines and other oil field infrastructure over time will degrade, corrode, and break, likely leading to spillage of any remaining oil and other hazardous substances used during oil field operations. In addition to being a chronic source of degradation, oil contamination and deteriorating oilfield infrastructure may also limit wildlife and plant populations in the surrounding areas by causing the injury and mortality of some individuals, thus restricting reproductive and dispersal capacities. Cumulatively, all of these physical and chemical factors associated with oil contamination and oil production infrastructure within ESHA combine to significantly disrupt a variety of the key habitat values of that ESHA, including its ability to support the plant and animal species that depend on it, provide forage and refuge opportunities for wildlife species, and promote species diversity, abundance, and resiliency.

While the proposed clean-up and removal of the sources of disruption of habitat values from ESHA certainly has the potential to enhance these habitat areas and protect them against future disruption from these sources, in order to ensure that the ESHA is protected against "any significant disruption," it is also necessary to consider if the removal activities themselves could also be a source of further disruption.

Some of the less intensive clean-up activities proposed in ESHA - such as using hand tools, foot traffic, and locating support equipment in existing oilfield use areas to dismantle, collect, and withdraw infrastructure like surface pipelines – would only result in very limited and short term impacts (slight crushing of vegetation along footpaths, wildlife disturbance for the minutes or hours needed to complete the work) that would not rise to the level of significant disruption. However, other proposed clean-up activities – primarily grading and excavation within habitat areas - could result in more extensive, potentially permanent impacts to ESHA that would more clearly reach the level of significant disruption.

When evaluating this type of activity, it then becomes necessary to consider the measures proposed to minimize that disruption and whether the activity, when combined with a suite of additional activities aimed expressly at the restoration, enhancement, and protection of the affected habitat, would ensure the long-term health and persistence of the ESHA (i.e., whether the activity that would affect the ESHA is an integral component of a comprehensive restoration effort). It is also relevant to consider the purpose of the proposal. As currently proposed, NBR's oilfield clean-up activities within sensitive habitat areas are not clearly part of such a project or effort. Although NBR has developed and submitted a Habitat Conservation and Conceptual Mitigation Plan as part of its application, in its current form, this Plan lacks the detail, specificity, comprehensiveness, and clear linkage between impacts to sensitive habitats and their in-place, in-kind, restoration needed to assure that its implementation would be capable of reducing disruptions of habitat values to below the level of significance. The Plan lacks a clear accounting mechanism to ensure that total, post-clean-up impact areas are quantified and the appropriate mitigation ratios needed to address the temporal loss and uncertain replication of habitat are applied. The Plan also lacks a comprehensive suite of impact avoidance and minimization measures to ensure that the extent, magnitude, and duration of impacts are limited as much as possible. Finally, far from ensuring that the sensitive resources are restored, the

proposal actually involves placing permanent residential and commercial development in the location where sensitive resources currently exist, after clean-up efforts are complete. Thus, much of NBR's proposed activities are not consistent with the Coastal Act's ESHA protection policies because they cause a significant disruption of ESHA.

However, with additions and revisions to address the shortcomings in its proposal, NBR's Habitat Conservation and Conceptual Mitigation Plan (HCCM Plan) can be modified to integrate more fully with the proposed oilfield clean-up activities into a robust site-wide restoration program, ensuring that any temporary disturbance of ESHA is the minimum necessary to fully restore the ESHA in place. The Commission finds this can be achieved if the proposed clean-up activities are carried out in such a way as to (1) effectively and completely remove the chronic, ongoing, sources of significant disruption to that and adjacent habitat discussed above; and (2) integrate the revised HCCM Plan into a comprehensive and carefully implemented restoration program. With such modifications the Commission could find the proposed oilfield clean-up operations would serve to protect against significant disruption of habitat values.

Key to the success of this approach, however, is the implementation of measures to (1) limit the scope, duration, extent and severity of clean-up impacts within the target and surrounding areas; (2) thoroughly survey and document existing physical and biological conditions within those sensitive habitat sites in which clean-up would occur; (3) design and carry out a site-specific revegetation and restoration plan for each area of impact that includes clear habitat restoration and revegetation goals for that site based on quantifiable metrics and the results of the pre-impact physical and biological survey of that site; (4) design and carry out the appropriate level of supplemental habitat creation to address the temporal loss of habitat function between when it is affected and restored and to make up for limitations in the ability of restoration to fully replicate habitat; (5) carry out adequate ongoing monitoring of performance criteria, supplemental restoration, and maintenance activities until site-specific restoration goals have been met; and (6) provide for the long-term protection and preservation of restored areas and adjacent intact habitat areas.

These six key elements are essential to the successful development and conduct of the restoration component of the oilfield clean-up activities. When combined with the complete removal of the clean-up targets that act as chronic and ongoing disruptions to habitat values, this restoration component would ensure that the project would enhance the biological productivity and functional capacity of the portions of the site from which oil contamination and oil and gas production infrastructure would be removed, and would lead to a significant improvement to habitats and wildlife resources within those areas. Implementation of this type of combined clean-up and restoration plan would improve the quality and quantity of ESHA both within the clean-up areas and throughout the oilfield site.

In order to implement this approach, **Special Conditions 7 and 8** would provide for the first key element described above to be met by: (1) requiring site-specific surveys to be carried out at each clean-up area in and immediately around areas of ESHA and wetlands identified on **Exhibit 18** in order to confirm the presence of valid a clean-up target, delineate its extent, and aid in the development of a site-specific clean-up plan for that site that would limit the scope, duration,

extent and severity of clean-up impacts on habitat; (2) requiring that NBR's Oilfield Abandonment Plan be revised to include a Remediation Action Areas Site Plan that would ensure that the stockpiling, treatment, processing, borrow, and disposal of oilfield wastes does not adversely affect ESHA or wetlands; and (3) requiring that NBR's Oilfield Abandonment Plan be revised to include a variety of impact avoidance and minimization measures to additionally limit the adverse effects of clean-up activities on sensitive habitats.

Special Condition 14 would provide for the second key element described above to be met by requiring that a pre-disturbance physical and biological survey be carried out at each ESHA or wetland site that would be adversely affected by clean-up activities in order to fully document the existing biotic and abiotic characteristics of those areas.

Special Condition 14 would provide for the third key element described above to be met by requiring that NBR to submit a Final Habitat Management Plan that includes a site-specific restoration and post-construction monitoring program that includes site-specific restoration plans for each of the ESHA or wetland sites that would be adversely affected by clean-up activities. As described in that special condition, these plans would be based on the pre-disturbance condition of each site and would be designed to restore the disturbed or damaged habitat to those conditions documented by the pre-disturbance survey results.

Restoration following Soil Clean-*up*

The site-specific restoration plans and restoration of impacted or disturbed sensitive habitats in-place is critical because ecosystems are defined by complex and often less-than-fully understood arrays of factors that include continua of physical parameters, species assemblages, and complex interactions between each of these. Due to such intricacies, particularly when extensive biophysical gradients and ecotones (or transitional areas between discrete habitat types) are involved, restoration of ecosystems within the sites they occupy to a well-functioning state tends to be more successful than attempts at de novo habitat creation at entirely new sites (Suding 2011). This can be attributed to any multitude of physical factors including geologic and soil composition, topography and slope face orientations, hydrology, wind exposure, sun exposure, precipitation and temperature regimes, and disturbance regimes (e.g., fire frequency) (Riordan & Rundel 2009). Interactions among species can be even more subtle and difficult to recreate in de novo situations (Longcore 2003; Moreno-Mateos et al 2013). The exchange of certain losses for uncertain gains associated with de novo mitigation (even if a site is degraded) also contributes to the widely-accepted preference for on-site restoration measures (Maron et al 2012; USACE & EPA 2008).

Special Conditions 9 and 14 would provide for the fourth key element described above to be met by (1) requiring clean-up impacts assessment and quantification surveys to be carried out at the completion of clean-up activities at each site in and immediately around ESHA or wetlands in order to document the type and amount of habitat impacts that occurred; and (2) requiring NBR to submit a Final Habitat Management Plan that includes a general restoration and post-construction monitoring program that would be designed to carry out the appropriate level of supplemental habitat creation to address the temporal loss of habitat function between when it is adversely affected by clean-up activities and when it is restored in-kind and in-place and to make

up for limitations in the ability of restoration to fully replicate habitat. To accomplish this, **Special Condition 14** also identifies the appropriate ratios to be used to fully mitigate for impacts to the various types of habitats present within the estimated clean-up areas. These ratios would be applied based on the type and amount of habitat removal and disturbance documented in the clean-up impacts assessment and quantification surveys carried out at the conclusion of clean-up activities in each area.

Mitigation ratios identified in **Special Condition 14** were selected based on a combination of factors including: (1) past Commission decisions on similar types of habitats and temporary impacts that have frequently found a 4:1 (restoration:impact) ratio to be appropriate for wetlands (including vernal pools without state or federally listed fairy shrimp species) and a 3:1 ratio to be appropriate for ESHA vegetation (including purple needlegrass); (2) guidance from the Newport Beach Coastal Land Use Plan that requires 4:1 mitigation for vernal pools and saltmarsh and 3:1 mitigation for coastal sage scrub occupied by California gnatcatchers and rare vegetation communities including native grasslands and southern maritime chaparral; (3) the analysis and recommendations of Commission staff ecologists provided in **Exhibit 13a** that include a recommendation of 10:1 mitigation for disturbance of vernal pool habitat with federally endangered San Diego Fairy Shrimp; (4) the documented success of past habitat creation and restoration efforts carried out onsite by NBR; and (5) the observed recovery and re-vegetation of areas onsite in which mowing operations were discontinued as part of the settlement agreement between NBR and the Commission (CCC-15-CD-01 & CCC-15-RO-01, dated May 12, 2015).

Special Condition 14 would also provide for the fifth key element described above to be met by requiring NBR to develop and submit a Final Habitat Management Plan that establishes quantitative performance criteria for habitat restoration and mitigation areas and includes provisions for monitoring and maintenance of the restoration sites until restoration goals have been achieved.

Finally, **Special Condition 1 and 10** would provide for the critical sixth key element described above to be met by providing for the long-term protection and preservation of restored areas and adjacent intact habitat areas by (1) requiring the proposed residential and commercial development to be sited outside of them; and (2) through the recording of a conservation easement that would restrict the use of such areas of land for habitat conservation and public passive recreation.

As described above and with implementation of the specific measures established in **Special Conditions 7, 8, 9, 10 and 14**, the Commission finds that oilfield clean-up component of the proposed project would be for the express purpose of removing surface and subsurface petroleum-hydrocarbon contamination and infrastructure to restore the former oilfield site to its pre-oilfield natural state, and, more importantly, would restore ESHA. As such, this component of the project would be a "restoration" project and would therefore be a use dependent on ESHA resources.

Conclusion

The proposed project would have significant impacts on ESHA for the abandonment and remediation activities and a proposed housing and commercial development, non-resource dependent uses, with impacts to the ESHA identified on the site. Staff is recommending approval of an alternative that is consistent with the resource protection policies of the Coastal Act that identifies a 19.7 acre development footprint. The Banning Ranch Conservancy submitted an alternative plan that also represents a smaller development footprint than what is proposed (in **Appendix E** and attached to Ex Partes), however it is not based on the constraints identified by staff. The project as proposed is inconsistent with section 30240. With implementation of **Special Conditions 7, 8, 9, 10 and 14**, the Commission finds that the project will protect ESHA against any significant disruption of habitat values, and that the oilfield clean-up and restoration program outlined above would constitute a use dependent on ESHA resources. The Commission therefore finds the project, as conditioned, consistent with Coastal Act Section 30240(a).

F. MARINE RESOURCES AND WETLANDS

Section 30230 of the Coastal Act states:

Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.

Section 30231 of the Coastal Act states:

The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.

Section 30233 of the Coastal Act states, in relevant part:

> *(a) The diking, filling or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:*
>
> > *(1) New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities.*

(2) Maintaining existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.
(3) In open coastal waters, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities and the placement of structural pilings for public recreational piers that provide public access and recreational opportunities.
(4) Incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.
(5) Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas.
(6) Restoration purposes.
(7) Nature study, aquaculture, or similar resource dependent activities.

(c) In addition to the other provisions of this section, diking, filling, or dredging in existing estuaries and wetlands shall maintain or enhance the functional capacity of the wetland or estuary.

Wetlands
Seasonal Wetlands often occur under Mediterranean climate conditions of the West coast. Seasonal wetlands have a natural lining of bedrock or a lining of hard clay that prevents water from infiltrating into the soil. During rain events, a shallow layer of water covers the depression in the soil and "awakens" the seeds, eggs, and/or cysts present. During a wet season, a seasonal pool may fill and dry out several times and in years of drought, it may not fill at all. The seeds, eggs, and cysts can survive the drought conditions until the pool fills again.

Title 14 California Code of Regulations ("CCR") section 13577(b) defines "wetlands":
Wetlands shall be defined as land where the water table is at, near or above the land surface long enough to promote the formation for hydric soils or to support the growth of hydrophytes.

The Banning Ranch site includes roughly 130 acres of wetland and riparian habitats in the lowlands portion of the site and 12 additional wetlands on the mesa (identified as wetland features VP1, VP2, A, C, E, M, V, W, CC, KK, MM, and OO). Nine periodically ponded area on the mesa are also classified as vernal pools. These types of seasonal wetlands often occur under the Mediterranean climate conditions of the West coast and typically have a natural lining of bedrock or other impervious surface such as a lining of hard clay that prevents water from infiltrating into the soil. During rain events, a shallow layer of water can cover depressed areas in the soil and can trigger the emergence of wetland vegetation and invertebrates by "awakening" the seeds, eggs, and/or cysts that these plants and animals may have left behind during growth cycles that occurred during previous periods of inundation. During a single wet season, a seasonal pool may fill and dry out several times and in years of drought, it may not fill at all. Typically, the seeds, eggs, and cysts that may be present in the soils of seasonal wetlands are adapted to these conditions and can survive both inter-seasonal and intra-seasonal drought conditions until the pool fills again.

If seasonal wetlands contain plant and/or animal species that are characteristic of that habitat and seldom found elsewhere, they are called 'vernal pools' and may rise to the level of ESHA. Research suggests that approximately 90% of California's historic vernal pool habitats have been lost. Due to their extreme rarity and sensitivity to disturbance, these vernal pools are subject to protection under both Section 30240 of the Coastal Act *and* under Section 30233.

The wetland areas in the lowlands portion of the site would only be affected by the proposed oilfield clean-up activities while the wetland areas on the mesa would be affected by both proposed clean-up activities and the proposed residential and commercial development plan. As discussed in the preceding section of this report, with the imposition of the recommended special conditions, all impacts of the clean-up activities to both wetlands and ESHA would be addressed through in-place, in-kind restoration and mitigation consistent with past Commission action and local policy guidance. Also consistent with past Commission action on similar types of clean-up operations in wetland habitats, these special conditions – in particular **Special Conditions 1, 7, 8, 9, 10 and 14** – would help ensure that the project disturbance footprint near sensitive areas is minimized to the maximum extent feasible and that a restoration plan is developed and implemented to mitigate for unavoidable impacts to wetlands and other habitats and to provide for their lasting protection and preservation.

In those cases where it is clearly designed and implemented to expand, enhance, or promote wetlands or address a threat or source of degradation to their habitats and resources, restoration of wetlands has been an allowed type of development in wetlands and considered by the Commission to be an allowable use consistent with Section 30233(a)(6), quoted above. In a variety of permit actions, the removal of oil and gas production infrastructure or contamination from wetland habitats and the subsequent restoration of those habitats has been found to be for restoration purposes. Housing and commercial development, however, is not an allowed use under Section 30233(a), and therefore the proposed fill of wetlands for the construction of residential and commercial development, roads, utilities and other elements of the proposed plan is not consistent with this policy. In particular, the proposed filling of the wetland features referred to as "C" and "CC" for the construction of residential development is not consistent with the wetland policies of the Coastal Act. Although, as discussed in the memorandum provided in **Exhibit 13a and 13b**, these features are small in size and may have been created or augmented through human activity, they have been shown in repeated formal wetland surveys and delineations to meet the definition of a "wetland," as explained in the ESHA Memo.

In order to be consistent with Section 30233(a), a project that involves filling or dredging in a wetland must meet all three "tests" of that section: the use must be one of the uses specifically allowed, it must be the least environmentally damaging alternative, and it must provide adequate mitigation to offset any impacts created by that fill or dredging. As discussed further below, as proposed, the aspect of the project involving the placement of residential or other permanent development where wetlands currently exist does not meet the list of limited approvable projects for fill of wetlands under section 30233, nor is it the least environmentally damaging alternative. Lastly, the mitigation proposed for the fill of the wetlands is inappropriate because the project does not meet the limited uses.

Proposed Fill/Dredging

The development plan would impact 2 of the 17 wetlands on the mesa (C and CC) for single family homes in the North Family Village and site grading.

The vernal pool complex and wetlands and arroyos are connected throughout the site. A complete mapped watershed encompassing drainage courses over the entire site was not provided and staff is unable to identify impacts of the watershed of the site, as a whole. However, the development footprint as proposed with Bluff Road dividing the vernal pool complex from the North-South Arroyo would completely surround the vernal pool complex with development and would isolate and adversely affect the vernal pool and wetland watershed connections. The proposed culverts under the road would provide for wildlife movement but would not prevent impacts to ESHA and the watershed.

In addition, the proposed oilfield clean-up activities include approximately 7 acres of wetland habitat areas within their estimated disturbance footprint. While the majority of these areas would be located on the lowland portion of the site, significant portions of several vernal pools in the upland mesa would also be included – as shown in **Exhibit 18**. Oilfield clean-up activities within wetland habitats would involve both fill and dredging of wetlands and would involve both low-intensity work such as the removal of surface pipelines and power poles using hand labor and cranes and equipment staged on existing oilfield access roads, as well as high-intensity work such as the excavation of historic roadbeds, re-abandonment of wells, and excavation of oil contaminated soils.

1) Allowable Use

Residential development is not included in the uses listed above, No. 1-7 of Section 30233. Thus, the proposed fill of wetlands "C" and "CC" through grading and development of residential units is not an allowable use. Therefore, the proposed development is inconsistent with the first "test" of Section 30233 of the Coastal Act with regard to uses allowed within wetlands.

The dredging and fill of wetlands associated with oilfield clean-up activities is an allowable use when combined with in-place and in-kind restoration efforts directed at addressing the effects of those clean-up activities on the same affected wetlands. As modified through the implementation of **Special Conditions 1, 7, 8, 9, 10 and 14** - as discussed more fully in the previous section of this report - the proposed oilfield clean-up activities would be implemented as part of an integrated plan for the restoration and protection of the wetlands and other sensitive habitats throughout the Banning Ranch site and would qualify under the "restoration purposes" category included in the uses listed above, No. 1-7 of Section 30233. Therefore, as modified through the measures required through these conditions, the proposed oilfield clean-up activities are consistent with the first "test" of Section 30233 of the Coastal Act.

2) Alternatives

No less environmentally damaging alternatives to the proposed fill of wetlands for the residential development have been given substantial consideration with the current development plan proposal. However, an obvious less environmentally damaging alternative to the proposed fill of wetlands would be a reduced or modified development footprint that avoids the wetlands and

seasonal features on the mesa portion of the site and/or a designation of these sites as open space and wetland restoration. These alternatives are presented in the buildable areas identified in the constraints map provided as **Exhibit 4**. Given the available acreage outside of wetland areas shown on the constraints map, this avoidance alternative would be a feasible way to implement the project in a less environmentally damaging manner. As such, **Special Conditions 1 and 10** were developed to facilitate the implementation of this alternative by identifying a residential development plan area that would avoid the dredging or fill of wetlands on the mesa and the wetland/vernal pool watershed. As conditioned in this way, the project could be found to be consistent with the second "test" of Section 30233.

Alternatives to the proposed oilfield clean-up plan were also considered. Such alternatives included alternative removal methods, in-situ treatments such as phytoremediation and heat treatment, and abandonment in place of contaminated materials and oilfield infrastructure in wetland areas. However, each of these alternatives was rejected either because they were infeasible or would not be less environmentally damaging. Alternative removal methods such as selective removal of only visible surface materials were rejected due to concerns about their inability to completely and effectively remove the clean-up targets. In-situ treatments were rejected because they would either result in more extensive impacts or because they would not be an appropriate and effective way to remove the target materials. These techniques are most often used for more volatile, less persistent chemical contaminants that are less weathered and tightly bound to soils than many of the target materials on the Banning Ranch site. As such, the application of these techniques could result in environmental impacts without effectively removing the target materials. Abandonment of contaminants and/or materials in place – in addition to being at odds with DOGGR and Water Board requirements for removal of these targets – was rejected because it would not address the ongoing degradation and damage to wetland habitats and resources that is being caused by the presence of these materials. As such, the proposed physical removal of the clean-up targets was determined to be the least damaging alternative – as long as that removal was carried out only in those locations where it was found to be necessary; included all feasible impact avoidance and minimization measures; and was followed with site-specific restoration activities oriented around the in-kind, and in-place restoration of the affected habitat areas. With modification to include these additional elements, the proposed clean-up activities would be the least environmentally damaging feasible alternative and would therefore be consistent with the second test of Section 30233.

3) Mitigation

Section 30233 of the Coastal Act requires that wetland projects include feasible mitigation measures to minimize adverse environmental effects.

Clean Up Activities

The proposed clean-up activities were carefully considered in order to develop a comprehensive list of feasible mitigation measures that would minimize adverse environmental effects. These measures include: (1) ensuring that clean-up activities are only carried out in wetland areas once a valid clean-up target has been confirmed and, if possible, delineated so that the scope, type, and duration of habitat disturbing activities can be limited (provided through **Special Condition 8**); (2) avoidance and minimization measures to limit the scope, extent, and severity of clean-up and

associated activities in wetlands (provided through **Special Condition 7**); (3) the implementation of site-specific restoration activities oriented around the in-kind, and in-place restoration of the affected wetland areas (provided through **Special Condition 14**); (4) implementation of supplemental restoration activities using the appropriate mitigation ratio to address the temporal lag between when impacts occur and when successful restoration is accomplished (provided through **Special Condition 14**); and (5) the long-term protection and preservation of restored impact sites and mitigation areas through the exclusion of such areas from the residential and commercial development plan and their coverage under a conservation easement (provided through **Special Conditions 1 and 10**).

With the inclusion of the Special Conditions described above, the proposed oilfield clean-up component of the project would include feasible mitigation measures to minimize adverse environmental effects and would therefore be consistent with the third and final test of Section 30233.

Residential and Commercial Development Plan
Wetlands C and CC are in the center of the proposed North Family Village where buildable areas existing on either side of the wetlands. The location of the wetlands limits access between the development areas. Section 30233 requires feasible mitigation measures to minimize adverse environmental effects to wetlands. In this case, the recommended 100 foot buffer around wetland would minimize adverse environmental effects.

There is potential development area between the two pools, although ecologically it is best for these two pools to have one combined buffer and not to allow development to occur between the pools. Were the wetlands entirely surrounded by development, pools C and CC would have reduced functionality and less potential for significant restoration, even with 100-ft buffers. In addition, as islands of habitat in an urban sea, they would provide fewer benefits to wildlife, be subject to urban run-off and over time, would be degraded. Preserving the connection between these two pools, and the connection to the North-South Arroyo is critical for the pools' long term functionality as wetlands.

The development of a road in the vicinity of C and CC is necessary to access the buildable areas of approximately 3 acres southwest of the pools. As conditioned, a road may be developed within the outer 50 feet of the buffer of wetland CC, on the side away from wetland C; however, this is only allowable with mitigation measures that (1) prevent water quality or other impacts to the marine resources, and (2) add to the remaining merged buffer an area equivalent to the area lost to development.

Consistency with Section 30233
Although not all wetlands are within the project footprint, all wetlands, including those in the lowlands, need to be protected under the Coastal Act section 30233. The development plan does not meet the list of limited approvable projects for fill of wetlands, nor is it the least environmentally damaging alternative, nor does the project include adequate mitigation for the impacts. The development plan, as proposed, is inconsistent with Coastal Act section 30233.

Only as conditioned to avoid fill of wetlands and vernal pools can the development plan be found consistent with Section 30233. The footprint identified in the "Buildable areas" on **Exhibit 4** would completely avoid wetlands, vernal pools, and arroyos and is, therefore consistent with Section 30233. **Special condition 1** requires revised plans for the development plan to conform to this alternative and also requires complete avoidance of wetlands and vernal pools. **Special Condition 14** requires site-specific and general restoration and mitigation plans for temporary impacts to wetlands as a result of clean-up work and **Special Conditions 7 and 8** ensure project impacts to wetlands are avoided and minimized. Only with the inclusion of these conditions can the project be found consistent with Section 30233.

Marine Resources

Section 30230 states that marine resources shall be maintained, enhanced, and restored. The wetlands, vernal pools and arroyos of the site are all marine resources. The watershed of the site connected directly to the Semeniuk slough, and from there to the Santa Ana River and Pacific Ocean. The clean-up activities proposed are an attempt to restore and enhance the marine resources of the wetlands and vernal pools and arroyos and, as conditioned for restoration and mitigation plans, are consistent with Section 30230.

The development plan for residential and commercial, as proposed, is not consistent with the provisions for maintenance, enhancement, and restoration of the marine resources on the site. Impacts to the North-South arroyo is proposed for the development of Bluff Road culverts and impacts of the Main Arroyo is proposed for the bridge abutments to support the span across the arroyo and allow Bluff Road to connect the South and North of the site. The proposed fill of wetlands C and CC and impacts to the arroyos is inconsistent with the section above.

Section 30231 states that the biological productivity and the quality of wetlands shall be maintained without *interference with surface water flow*. The proposal to fill the wetlands would permanently impact all aquatic organisms in the pools and would be inconsistent with section 30231 that requires the maintenance of biological productivity in wetlands. In addition, the development footprint as proposed will divide the vernal pools from the North-South Arroyo, while the culverts will allow for wildlife movement, they may interfere with surface flow of the watershed. The project, as conditioned to limit the road would allow for the natural hydrological connectivity of the site by avoiding the head of the North-South Arroyo and as conditioned to revise the residential development would maintain the productivity of wetlands by avoiding their fill. Preserving the complete arroyo and the natural connection to the vernal pool complex would protect the surface flow and ensure the long term productivity of the site's natural watershed. Additionally, as conditioned, the project would avoid other sensitive resources in this area, such as Gnatcatcher habitat by preserving the head of the arroyo and providing alternative non-automobile circulation elements to the proposed Bluff Road. The preservation of this central area is critical for the site's watershed and for the site's overall habitat connectivity for wildlife.

Buffers

The Commission has typically required buffers of at least 100 feet for development adjacent to wetlands. The project did not provide appropriate buffers around the wetlands onsite, specifically around pools E, C and CC. It is for these reasons that a minimum 100-foot buffer is strongly

recommended with development occurring around wetlands. Only as conditioned for 100-foot buffers around all wetlands and vernal pools, and as recommended in the ESHA Memo, 10 foot buffers around mapped Vernal Pool watersheds, and the combined buffers of wetland C and CC, and for the preservation of the head of the North-South Arroyo with riparian vegetation and connecting vernal pool complex, and for the avoidance of impacts to the natural watershed of the site can the project be found consistent with Section 30233 to minimize adverse environmental effects to wetlands.

Water Quality of Marine Resources

The proposed development plan could have an impact on the marine resources, including the tidal slough, riparian features, and wetlands, on and off the site. Much of the pollutants entering the ocean come from land-based development. The Commission finds that it is necessary to minimize to the extent feasible within its jurisdiction the cumulative adverse impacts on water quality resulting from incremental increases in impervious surface areas associated with additional development. Reductions in the amount of pollutants in the existing runoff would be one step to begin to reduce cumulative adverse impacts to coastal water quality. As such, appropriate measures must be taken to assure that adverse effects on water quality are minimized. The proposed development has a potential for a discharge of polluted runoff from the project site into coastal waters, both during Construction and Post-Construction.

Pre-Construction

The applicant has provided a Storm Water Pollution Prevention Plan (SWPPP) that describes the pre-construction and during construction management of site water and protection of the marine and sensitive water resources on and off site. Potential sources of pollution during construction include abandonment and remediation, oil clean-up activities, storage and handling of construction materials, clearing and construction related activities that have the potential to discharge, improper dumping, spills, or leakage.

The SWPPP provides specifications and guidelines for reducing the sediment loading into receiving water bodies that could occur during the construction and post-construction of site development. Although some erosion and soil loss is unavoidable during land-disturbance activities, the proper siting and design of erosion and sediment controls will reduce the amount of sediment transported off-site. Effective site management minimizes excessive soil erosion by keeping the soil stabilized and by directing runoff from disturbed areas to locations where sediments are removed prior to discharge to water bodies.

Specific Construction BMPs proposed include erosion control measures to prevent soil particles from being transported into the storm water runoff by covering and/or binding the soil particles prior to the onset of rain. Methods of erosion control proposed include: scheduling grading for dry months, preservation of existing vegetation, using mulch, and placing rolled erosion control products on the site. Earth dikes and drainage swales will be used to intercept and divert runoff to avoid sheet flow over sloped surfaces, direct runoff towards a stabilized watercourse, and intercept runoff from paved surfaces. Velocity dissipation devices, shall be used at new outlets of pipes, drains, culverts, slope drains, diversion ditches, swales, conduits, or channels. Slope drains shall be used where concentrated flow of surface runoff must be conveyed down a slope.

This includes, drainage for top of slope diversion dikes and swales, drainage for top of cut and fill slopes where water can accumulate, and emergency spillway for a sediment basin. Disturbed stream channels, streambanks, and associated riparian areas shall be stabilized with vegetation, hydroseeding, hydraulic mulch, geotextiles & mats, and/or other erosion control measures. Non-vegetative stabilization include use of decomposed granite (DG), degradable mulches, gravel mulch and geotextiles and mats for temporary erosion control on areas prone to erosion where vegetation is not feasible, such as vehicular or pedestrian traffic areas, arid environments, rocky substrates, or where vegetation will not grow adequately within the construction time frame.

Sediment Control is a specific Construction BMPs proposed. Temporary sediment control materials would be maintained on-site throughout the duration of the project to allow implementation of temporary sediment controls in the event of rain and for rapid response to failures or emergencies, which includes silt fences, sediment basins, sediment traps, check dams, fiber rolls, gravel bag berms, street sweeping & vacuuming, sandbag barriers, and storm drain inlet protection.

Tracking controls and wind erosion controls are specific Construction BMPs proposed, which would be considered and implemented year round and throughout the duration of the project. Tracking controls would be located at all access (ingress/egress) points to the project site where vehicles and/or equipment may track sediment from the construction site onto public or private roadways and would include rumble racks (i.e. shaker plates) to provide additional sediment removal. Areas that are graded for construction vehicle transport and parking shall be stabilized. Roadways can be stabilized using aggregate, asphalt or concrete. Wind erosion control BMPs would be on all disturbed soils that are subject to wind erosion, and when significant wind and dry conditions are anticipated during project construction. The objective of wind controls would be to prevent the transport of soil from disturbed areas to off-site locations by wind. Dust control measures are proposed to stabilize soil from wind erosion, primarily in the form of construction watering (i.e. wet suppression), mainly on unpaved roads, drilling and blasting locations, soil and debris storage piles, batch drop from front-end loaders, unstabilized soil, and final grading. In addition, wind screen fencing would be implemented along the perimeter of the project site.

Non-Storm Water Management

Non-storm water management BMPs proposed include: water conservation practices, proper set up of temporary Arroyo crossings, clear water diversion, potable water/irrigation, vehicle and equipment cleaning and maintenance. Additionally, the proposal includes avoidance of overspraying curing compounds. Should run-off be generated, cure water shall be directed away from inlets to areas for infiltration or collection and disposal and drain inlets would be protected prior to the application of curing compounds. Use of covers, equipment attachments or platforms to collect debris is proposed. Debris and waste generated during demolition would be stored away from watercourses.

Material and waste management would consist of implementing procedural and structural BMPs for collecting, handling, storing and disposing of wastes generated by a construction project to prevent the release of waste materials into storm water discharges. The proposal includes: proper management of material delivery and storage, material use, stockpile management, spill

prevention and management of hazardous waste, contaminated soil, concrete waste, and liquid waste.

Storage or placement of construction materials, debris, or waste in a location subject to erosion and dispersion or which may be discharged into coastal water via rain or wind would result in adverse impacts upon the marine environment that would reduce the biological productivity of coastal waters. For instance, construction debris entering coastal waters may cover and displace soft bottom habitat. Sediment discharged into coastal waters may cause turbidity, which can shade and reduce the productivity of foraging avian and marine species' ability to see food in the water column. In order to avoid adverse construction-related impacts upon marine resources, the Commission imposes Interim Erosion Control Plan and Construction Responsibilities **Special Condition 23**, which outlines construction-related requirements to provide for the safe storage of construction materials and the safe disposal of construction debris. This condition requires the applicant to remove any and all debris resulting from construction activities within 24 hours of completion of the project. In addition, all construction materials, excluding lumber, shall be covered and enclosed on all sides, and as far away from a storm drain inlet and receiving waters as possible. Only as conditioned does the Commission find the proposed development to be consistent with Sections 30230 and 30231 of the Coastal Act.

Post-Construction

Section 30230 of the Coastal Act requires that marine resources including biological productivity be protected. Section 30231 of the Coastal Act requires that the biological productivity of coastal waters be maintained, and where feasible, restored. In addition, Sections 30230 and 30231 require that the quality of coastal waters be maintained and protected from adverse impacts.

Single-family residences and commercial structures have the potential to increase local runoff due to the creation of impervious areas. This runoff could carry with it pollutants such as suspended solids, oil and grease, nutrients, metals, and synthetic organic chemicals. This is especially of a concern in locations that are adjacent to wetlands and arroyos, and the Santa Ana River, such as the proposed project.

Hardscape features and other site appurtenances (i.e. area drains and drain lines) should be setback at least 60 feet from the bluff edge to minimize the potential that the development will be affected by erosion and landslide hazards. Thus, the Commission is imposing **Special Condition 24**, which requires the applicant to submit a revised drainage and run-off control plan.

The proposed water quality management design would include a variety of water quality features. Low Impact Development (LID) Best Management Practices (BMPs) are proposed to ensure that water quality within the surrounding region is protected. Throughout the eleven Drainage Management Areas (DMAs) proposed within the development footprint, multiple BMPs including hydrologic source controls (HSCs), harvest and reuse systems and various bio-treatment mechanisms will be utilized.

HSCs - hydrologic source controls

Water quality control would start with the individual residential and visitor serving lots. For each single family detached residential product type in the North and South Family Villages (traditional and clustered), the HSCs proposed include: two rain barrels for each home strategically located near roof downspouts and backyard landscaping to capture runoff from roof downspouts during rain events and detain that runoff for later reuse for irrigating landscaped areas.

The proposed home lots would also include impervious areas dispersion, directing runoff from impervious areas onto the surface of adjacent pervious areas. The combination of the rain barrels and impervious area dispersion techniques will result in an average 42% runoff reduction of the annual runoff volume of water for each product type. HSC's will also be implemented for all areas of development including higher density residential (multi-family attached) and retail/resort areas in the form of impervious area dispersion and on-lot retention.

Harvest and Reuse Area BMPs
Harvest and reuse BMPs would capture and store storm water runoff for later use. These BMPs would create stored water to be used for water demands, such as landscape irrigation, after a rain event has occurred. Harvest and reuse BMPs include both above-ground and below-ground cisterns, with storage volumes that achieve 40% capture efficiency or higher. Harvest and reuse cisterns are also designed to overflow to biotreatment BMPs in case of short durations between storm events.

Eight (8) of the eleven (11) proposed DMA's would incorporate harvest and reuse BMPs as the primary BMP based on feasibility criteria. The three (3) remaining areas would incorporate biotreatment basins as the primary BMP based on the same feasibility criteria. The cisterns would be designed to hold the full capacity of the design capture volume. Overflow would flow into a connected biotreatment system (modular wetland system – MWS) to maintain water quality.

The MWS units would be connected to the harvest and reuse systems to treat the overflow runoff once the cistern capacity is reached. The combination of harvest and reuse cisterns and MWS units are proposed throughout each DMA based on the proposed grading plan and identified low points. Storm drain flows would flow into localized catch basins and into the proposed storm drain lines. The storm drain lines would include low-flow diversion structures which will direct water quality flows to the harvest and reuse cisterns. The cisterns would include a pre-treatment filter that can remove particulates sufficient for pre-treating Total Suspended Solids and associated heavy metals attached to sediment.

In addition, all internal roads within Harvest and Reuse areas would include bi-weekly street sweeping to prevent build-up of sediments and associated pollutants on streets and parking areas. The water stored in the cisterns would be connected to a pump system and irrigation line to allow for landscape irrigation. Any additional treatment needed during frequent storm events would be provided by the MWS units connected to the harvest and reuse cisterns.

Biotreatment Area BMPs
Biotreatment BMPs would reduce storm water volume and treat storm water using various treatment mechanisms characteristic of biologically active systems, and discharge water to the downstream storm drain system or directly to receiving waters. Treatment mechanisms include media filtration, vegetative filtration, general absorption processes, biologically-mediated transformations, and other processes to address both suspended and dissolved constituents. Examples of biotreatment BMPs for the site include bioretention basins with underdrains, vegetated swales, and localized rain gardens. Stand-alone biotreatment BMPs would be implemented in the regions where harvest and reuse is not feasible. The biotreatment areas include 3 DMAs throughout the North Village and a portion of the South Village. In addition, biotreatment BMPs would be implemented on the streets and parkways throughout the entire site.

The biotreatment water quality basins would be integrated into landscape areas throughout the North Family Village and a portion of the South Family Village. These basins would be landscaped shallow depressions that capture and filter stormwater runoff. These facilities would act as a plant-based filtration device that removes pollutants through physical, biological, and chemical treatment processes. As stormwater passes down through the planting soil, pollutants are filtered, adsorbed, biodegraded, and sequestered by the soil and plants. After treatment, flows would be collected back into the main line for conveyance to the Lowlands for additional incidental treatment including infiltration and evapotranspiration. Flow-through planters and MWS units would be incorporated into the streets and parkways BMP design. Flow-through planters act similarly to the biotreatment basins.

Off-site Runoff Treatment
Implementation of the plan would include an on-site water quality treatment basin for the sole purpose of treating off-site runoff (water that runs on to the site from adjacent areas, or run-on) in a lined basin approximately 0.75 acres. Approximately 46 acres of off-site runoff from the City of Costa Mesa and Newport Beach including commercial, light industrial and residential would be treated by the proposed water quality basin near 16th Street.

The system would provide an expected reduction in annual pollutant loads and annual pollutant concentrations. In addition the treatment of flows, the basin will also serve as a dissipation feature to control flows into the Main Arroyo. Controlling flows into the Arroyo will serve to reduce erosion potential within the Arroyo, reduce sediment transport to the Seminiuk Slough and improve habitat establishment along the bank.

Conveyance
The proposed plans would include construction of an energy dissipator basin within the Open Space Preserve to control stormwater flows from the Urban Colony and the North Family Village before discharging into the Lowlands. Flows from the North Family Village area and the Urban Colony will be treated prior to reaching the diffuser basin by HSC's and either perimeter basins or the harvest and reuse systems. No water quality treatment will occur within the proposed energy dissipator basin and the diffuser basin would be constructed of rip-rap.

The second diffuser basin is proposed within the Open Space Preserve at the west end of the Main Arroyo prior to flows entering Semeniuk Slough. A culvert would be constructed under the existing oil remainder site roadway in order for the flows from the Main Arroyo to exit the site into the Slough. The purpose of this diffuser basin is to control flows into Seminiuk Slough from the Main Arroyo, including runoff from the South Family Village development areas, the Resort Colony and the proposed park areas. Flows from the South Family Village development areas, the Resort Colony and park areas will all be treated prior to reaching the diffuser basin by HSC's and either biotreatment basins or harvest and reuse systems. The diffuser basin would also be constructed of rip-rap.

The diffuser basins proposed are adjacent to wetland and riparian habitat. Construction plans for the water quality detention basin, diffuser basins, and dissipator were not provided in the application materials but grading limits and cross section details were provided to assess impacts. Construction specifications are needed to evaluate the basins' effectiveness for the proposed development and for the impacts the construction of these basins would have on ESHA and wetland habitat. Treated fresh water discharges into the lowlands are not anticipated to impact the salinity of the existing salt marsh as the majority of storm events will remain within the lowland berms and overflows into the existing salt marsh only occur under large storm events. However, studies regarding the amount of freshwater introduction on an occasional basis and the effects of reduced salinity levels on the habitat have not been provided.

Residential Development Water Quality

Typically, adverse water quality impacts to coastal waters can be avoided or minimized by directing storm water discharges from roof areas and other impervious surfaces to landscaped areas where pollutants may settle out of the storm water. In addition, reducing the quantity of impervious surfaces and increasing pervious water infiltration areas can improve water quality. However, these common techniques of addressing water quality problems, by design, result in increased infiltration of water into the ground. As noted in the hazard section of these findings, the infiltration of water into the bluff is a primary potential source of bluff instability at the project site. Therefore, increasing the quantity of pervious areas, directing runoff to those pervious areas, and encouraging water infiltration for water quality purposes could have adverse impacts upon bluff stability. There are measures, however, that would contribute to increased water quality that could feasibly be applied even to bluff top lots (on the mesa) such as the subject site without increasing instability.

The primary contributors to storm drain pollution stemming from single family residential development are irrigation, fertilizers, swimming pool discharges, and pet waste. These can be eliminated or significantly reduced. For example, permanent, in-ground irrigation tends to result in over-watering, causing drainage to run off site. Irrigation runoff carries with it particulates such as soil, debris, and fertilizers. Limiting irrigation to that necessary to establish and maintain plantings reduces the chance of excess runoff due to over-irrigation. Permanent, in-ground irrigation, in general, is set by timer and not by soil moisture condition. Thus, the site is irrigated on a regular basis regardless of the need, resulting in oversaturation and run off. The run-off, carrying soil, fertilizer, etc., is then directed either to the storm drain system. This can be avoided by limiting over-irrigation on the mesas.

Another way to improve water quality on bluff top lots without jeopardizing stability is the use of native/drought tolerant plantings. Low water use, drought tolerant, native plants require less water than other types of vegetation, thereby minimizing the amount of water introduced into the bluff top. As these plantings use less water than ornamental plants, incidents of over-watering, causing saturation and excess runoff, is substantially reduced. As previously stated, reducing site runoff reduces the extent of pollutants carried into the storm drain system and into the ocean. **Special Condition 4** requires native and drought tolerant vegetation on individual residential lots and within the maintained commercial landscaped areas and prohibits permanent irrigation that does not include water-use efficiencies. **Special Condition 4** also mandates that individual residential lots not be developed with swimming pools, in order to avoid improper discharges into the dedicated conservation areas for the protection of the water quality of the arroyos and wetlands.

Conclusion

While the water quality features are sufficient for the site development proposed, the overall southern portions of the development plan would have permanent impacts to acres of ESHA, and the North Family Village would impact 2 wetlands, and is inconsistent with the marine protection policies and wetlands and habitat protection policies of Ch. 3 of the Coastal Act. The alternative "Buildable areas" for the North Family Village and Urban Colony allows for the natural connectivity of the site by avoiding fill of wetlands and avoids impacts to ESHA as required by **Special Condition 1.** Preserving the natural connection between Wetlands C and CC to the North-South Arroyo and vernal pool watershed would ensure the long term productivity of the site's natural watershed. The preservation of this central area is critical for the site's watershed and for the site's overall habitat connectivity. As conditioned, the Water Quality Management Plan **Special Condition 24** would be revised to conform with the restricted buildable footprint and limit the water quality features to those associated with these 2 residential areas, with revised plans for the dissipater basin in the lowland to be relocated from directly impacting wetlands into areas of wetland buffers, as conditioned by **Special Condition 1**. The site-wide improvements to water quality, such as the basin to treat run-on before water is conveyed into the Main Arroyo require revised plans and are conditioned for final review and approval of the Executive Director, see **Special Condition 1**.

The proposed water quality plans for Pre-construction and Post-construction protection of marine resources would largely be consistent with Coastal Act Sections 30230 and 30231, with the exception of water quality structures located in the lowlands and within wetlands as described above**.** However, the development plan as a whole, for which the above described water quality systems are designed, is not consistent with the protection of wetlands, is inconsistent with Sections 30230, 30231, and 30233 of the Coastal Act. Only as conditioned to avoid fill of wetlands, avoid impacts to the watershed, and preserve the site connectivity, provide 100 foot wetlands and vernal pool buffers and watershed buffers as required by **Special Condition 1** and to submit final plans for the pre and post construction water quality measures and drainage plans and final plans for commercial space water quality BMPs, as well as a final water quality monitoring plan required by **Special Condition 24**, and construction plans for water quality

systems outside of the wetlands as required by **Special Condition 1,** can the project be found consistent with Sections 30230, 30231 and 30233 of the Coastal Act.

G. HAZARDS

Section 30253 of the Coastal Act states, in relevant part:

New development shall do all of the following:

(a) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.

(b) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs...

Grading and Landform Alteration

The grading plans include corrective grading for development proposed in the upland area, which would involve 1,416,000 cubic yards of cut, and 1,356,000 cubic yards fill, for a total of 2,772,000 cubic yards of grading. This represents one of the largest grading projects in the Coastal Zone of California in recent years.

Limiting development to areas outside of ESHA, and requiring development be setback from the canyon bluff/arroyo edges a minimum of 15 feet, as required by **Special Condition 1,** would significantly reduce the amount of grading required for the project and would minimize landform alteration and would not impact the ability of the project to assure structural stability, safety from hazards, and would not contribute to overall destruction of the site. Therefore, only as conditioned can the project be found consistent with Section 30253 of the Coastal Act.

Flood Hazards

The project site is partially within the floodplain of the Santa Ana River. However, the development, as conditioned, would be limited to the Mesa, which lies well above the floodplain, it would be safe from flood hazards. The project site also is partially within the Tsunami inundation zone, according to California Department of Conservation's official tsunami inundation maps. The inland extent of the inundation zone includes the lowlands of the site that are subject to tidal action. The Mesas of the site are not included in the inundation zone and would be safe from Tsunami hazards. Because the development, as conditioned, would be limited to the Mesas of the site, all development approved by this permit would be safe from tsunami hazards.

Geologic Hazards

The NBR site is located on the Orange County Coastal Plain and adjacent Newport Mesa. Part of the Newport Mesa forms the eastern, upland portion of the NBR site. The Orange County Coastal Plain is one of the coastal alluvial basins of the Los Angeles Sedimentary Basin. The Orange County Coastal Plain is bounded to the north by the Puente Hills, to the east by the Santa

Ana Mountains, to the west by the San Gabriel River, and to the southwest by the San Joaquin Hills and the Pacific Ocean.

The central portion of the coastal plain forms the broad alluvial floodplain of the Santa Ana River. The Santa Ana River originates in the San Bernardino Mountains. The river flows approximately 100 miles from the San Bernardino Mountains to the NBR site where it discharges into the Pacific Ocean.

The mesa consists of consolidated alluvial sediments which have been uplifted along a fault zone, and carved into their present morphology by the Santa Ana river. The lowland portion of the NBR consists of recent alluvial sediments. The active Newport-Inglewood fault zone, locus of the 1933 M_w 6.4 Long Beach Earthquake, is located along the southern boundary of the NBR.

The NBR site is bounded to the west by the mouth of the Santa Ana River and to the south by marsh channels, the former course of the Santa Ana River where it once flowed into Newport Bay. The marsh channels are connected by a culvert to the mouth of the Santa Ana River.

Geotechnical investigations were performed for the site by Guptill and Heath(1981), Woodward-Clyde Consultants (1985), the Earth Technology Corporation (1986), Pacific Soils Engineering, Inc. (1993), Leighton (1997), and Earth Consultants (1997). The studies conducted by Guptill and Heath and the Earth Technology were mainly related to the geological evaluation of splays of the Newport-Inglewood fault. Two distinct zones of faulting were identified within the site. The main active trace of the Newport-Inglewood fault is less than 1 mile from the site and the Palos Verdes fault is within 11 miles from the site. These faults are capable of generating significant ground shaking at the site. Several splays of the active Newport-Inglewood fault zone have been mapped across the site and in the site vicinity. Faults that break the ground surface during an earthquake can do considerable damage to structures built across them. Therefore, fault studies are typically designed to evaluate whether a fault is active. If a fault is deemed active, structures cannot be placed across the trace of the fault (Alquist-Priolo Earthquake Fault Zoning Act).

Converse Consultants (1994) discovered an active fault system on the site called the “West Mesa Fault.” This fault traverses the NBR site. It has been encountered in trenches in two distinct areas, and building setbacks have been established so that habitable structures are not built across this fault. Conservatively, these two areas are assumed to be connected, and building setbacks have been established between these areas as well.

The West Mesa Fault and the Newport-Inglewood fault system should be considered likely sources for future earthquakes that would generate strong ground motions at the site. In addition, surface rupture at the site is possible along the West Mesa Fault.

The studies by Woodward-Clyde Consultants and Pacific Soils Engineering, Inc., covered other geotechnical aspects including liquefaction and dynamic settlement. Both studies concluded that the upper 10 to 12 feet of the subsurface soils in the lowland areas were highly susceptible to liquefaction. Below 10 to 12 feet, localized zones of liquefiable soils were encountered. In

addition, the study by Woodward-Clyde found that the upper 4 to 10 feet of the subsurface materials contained soft, highly plastic clay that might not be suitable for use as structural fill.

The proposed development is located on a coastal bluff, despite the fact that it is inland of PCH and not currently subjected to marine erosion. Coastal bluff edges are also located along the Mesa facing the Seminouk Slough. Coastal bluff erosion is caused by a combination of inherent environmental factors and the anthropogenic factors. Environmental factors include gravity, seismicity, wetting and drying of bluff face soils, wind erosion, rodent burrowing and piping, percolation of rain water, adverse bedding orientation, surface water runoff and poorly consolidated soils. Factors attributed to anthropogenic causes include: improper irrigation practices; building too close to the bluff edge; improper site drainage; use of impermeable surfaces which concentrate runoff; use of water-dependent vegetation; pedestrian or vehicular movement across the bluff top, face and toe, and breaks in irrigation lines, water or sewer lines.

In addition to irrigation water or runoff at the bluff top, increased residential development inland leads to increased water percolating beneath the surface soils and potentially outletting on the bluff face along fracture lines in the bluff or points of contact of different geologic formations, forming a potential slide plane. The Commission's Staff Geologist, Dr. Mark Johnsson, has reviewed all geotechnical investigations submitted by the applicant and has concurred that these investigations have adequately addressed concerns regarding bluff erosion and slope stability of the project site.

Conformance with Geotechnical Recommendations
The development, as proposed, would likely be safe from geologic hazard, however conditions described below are applied to insure that the development: *assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site.*

The geotechnical consultants have found that the proposed development is feasible provided the recommendations contained in the geotechnical report prepared by the consultant are implemented as regards the design and construction of the project. In order to insure that risks of development are minimized, as per Section 30253, the Commission imposes **Special Condition 21**, which states that the geotechnical consultant's recommendations should be incorporated into the design of the project. As a condition of approval the applicant shall submit for the review and approval of the Executive Director foundation plans reviewed and signed by a consulting geologist.

Bluff Top Setback
Development on coastal bluffs is inherently risky due to the potential for slope failure. Bluff top development poses potential adverse impacts to the geologic stability of bluffs and the stability of structures. To meet the requirements of the Coastal Act, bluff top developments must be sited and designed to assure geologic stability and structural integrity for its expected economic lifespans while minimizing alteration of natural landforms. In order to assure that this is the case, a development setback line must be established that places the proposed structures a sufficient distance from unstable or marginally stable bluffs to assure their safety, and that takes into

account bluff retreat over the life of the structures, thus assuring the stability of the structures over their design life. The goal is to assure that by the time the bluff retreats sufficiently to threaten the development, the structures themselves are obsolete.

Commission Staff Geologist, Dr. Mark Johnsson, concluded that the bluff edge is in the location depicted on **Exhibits 4 and 22**, and with the proposed 60 foot bluff edge setback for all structures, the development would be safe from slope instability (as demonstrated by extensive quantitative slope stability analyses) and bluff erosion (as demonstrated by studies of historic erosion rates) for the economic life of the project. In addition, coastal canyon edges along the arroyos were evaluated and the Staff Geologist determined that 15 foot canyon edge setbacks would be sufficient to assure stability. The proposal includes residential development outside of the 60 foot setback from the fault zones and outside of the 60 foot setback from the coastal bluffs. **Special Condition 1** ensures adequate setbacks from coastal canyons edges as well.

Assumption of Risk
Coastal bluffs in southern California are recently emergent landforms in a tectonically active environment. Any development on an eroding coastal bluff involves some risk to development. Although adherence to the geotechnical consultant's recommendations will minimize the risk of damage from erosion, the risk is not entirely eliminated. Development on coastal bluffs involves risks and that structural engineering can minimize some of the risk but cannot eliminate it entirely. Therefore, the standard waiver of liability condition has been attached via **Special Condition 19**.

Bluff Protective Devices
Coastal bluff lots are inherently hazardous, especially those located adjacent to the ocean. It is the nature of bluffs to erode. Bluff failure can be episodic, and bluffs that seem stable now may not be so in the future. Even when a thorough professional geotechnical analysis of a site has concluded that a proposed development is expected to be safe from bluff retreat for the life of the project, it has been the experience of the Commission that in some instances, unexpected bluff retreat episodes that threaten development during the life of a structure sometimes do occur. In the Commission's experience, geologists cannot predict with absolute certainty if or when bluff failure on a particular site may take place, and cannot predict with certainty if or when a residence or property may become endangered.

Section 30253 of the Coastal Act requires that new development shall not require construction of protective devices that would substantially alter natural landforms along bluffs and cliffs. The proposed development could not be approved as being consistent with Section 30253 of the Coastal Act if projected bluff retreat would affect the proposed development and necessitate construction of a protection device. **Special Condition 20** prohibits the construction of bluff protective devices in the future.

Future Development
To assure that future development is consistent with the Chapter 3 policies of the Coastal Act, the Commission imposes **Special Condition 25**, to limit future improvements. As conditioned,

the development conforms with the Chapter 3 policies of the Coastal Act relating to geologic hazards.

Deed Restriction
Special Condition 28 requires that the property owner records a deed restriction against the property, referencing all of the above Special Conditions of this permit and imposing them as covenants, conditions and restrictions on the use and enjoyment of the Property.Thus, as conditioned, any prospective future owners will receive notice of the restrictions and/or obligations imposed on the use and enjoyment of the land including the risks of the development and/or hazards to which the site is subject, and the Commission's immunity from liability.

Conclusion
Limiting development to areas outside of ESHA, and requiring development be setback from the canyon bluff/arroyo edges a minimum of 15 feet, as required by **Special Condition 1**, would significantly reduce the amount of grading required for the project and would minimize landform alteration and would not impact the ability of the project to assure structural stability, safety from hazards, and would not contribute to overall destruction of the site. Therefore, only as conditioned can the project be found consistent with Section 30253 of the Coastal Act.

H. ARCHAEOLOGICAL AND CULTURAL RESOURCES

Section 30244 of the Coastal Act protects cultural resources in the coastal zone and states:

Where development would adversely impact archaeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required.

Section 30116 of the Coastal Act defines archeological sites as designated by the State Historic Preservation Officer as Sensitive Coastal Resources in the coastal zone:
"Sensitive coastal resource areas" means those identifiable and geographically bounded land and water areas within the coastal zone of vital interest and sensitivity. "Sensitive coastal resource areas" include the following:

(a) Special marine and land habitat areas, wetlands, lagoons, and estuaries as mapped and designated in Part 4 of the coastal plan.
(b) Areas possessing significant recreational value.
(c) Highly scenic areas.
(d) Archaeological sites referenced in the California Coastline and Recreation Plan or as designated by the State Historic Preservation Officer.
(e) Special communities or neighborhoods which are significant visitor destination areas.
(f) Areas that provide existing coastal housing or recreational opportunities for low- and moderate-income persons.
(g) Areas where divisions of land could substantially impair or restrict coastal access.

Coastal Act Section 30244 states that reasonable mitigation measures shall be required where development would adversely impact archaeological resources. These resources may include sacred lands, traditional cultural places and resources, and archaeological sites. Cultural resources are not confined to the boundaries of archaeological sites, but instead can encompass landscapes that are significant to Native American tribal groups because of habitation or use for cultural practices. In this context, impacts to archaeological and cultural resources may not sufficiently be avoided by simply siting development outside polygons drawn around the archaeological sites. For that reason, in order to preserve the cultural landscape of a property if identified as a resource by the State Historic Preservation Officer with un-mitigatable impacts, conditions may be imposed that require preservation of the areas that encompass a patchwork of archaeological sites, which indicate a historic use pattern and cultural significance, as open space.

Cultural Knowledge and Significance of Resources

Native Americans and some professional archeologists believe, and ethnographic evidence supports the idea, that the Banning Ranch site is one of the many village sites located along the Santa Ana River on the Western Newport Mesa that is a subsidiary settlement site of the primary village center- Genga, and that the Banning Ranch site overlooking the river and the ocean was used for special activities, including cultural and religious ceremonies. The reason the property as a whole, all 401 acres, is regarded as a Traditional Cultural Landscape is because of the site's vast array of special vegetation and wildlife and biological resources: *It is this ecosystem* [of Banning Ranch] *that led the Gabrielino and Juaneno-Acjachemen ancestors to settle here, collect the plants and animals, hold ceremonies, and bury their dead. It is this ecosystem, that together with the archaeological sites, forms this sacred landscape of the Banning Ranch Cultural Property and Landscape.* [letter dated May 3, 2016 from the CA Cultural Resource Preservation Alliance to the Coastal Commission].

Geographically, the resources present on Banning Ranch, considered in the context of the regional archaeological and cultural sites nearby such as Bolsa Chica, Hellman, Ridge, Fairview Park, etc. is related to the regional ephemeral and malleable nature of the historic mosaic pattern of the Santa Ana River outlet to the Pacific Ocean which created a vast estuary in coastal Orange County leading to the settlement of the region by Native Americans because of the strong connection between settlement sites and fresh water sources. One archeological site (ORA 906) has the potential to answer questions about the relationship of these regional settlements and connection the the river's various outlet points.

Temporally, the Banning Ranch site is significant because some archaeological deposits have great depth and document 3 or possibly 4 occupation periods ranging from 6000-1350 YBP, or approximately 6,000-1,000 years ago. It is highly likely that the site was occupied intermittently through environmental changes over time including changes in sea level rise, changes in the salinity of the wetlands, and changes in the types of marine species present and available as food sources, according to the ARP.

Regulations of Archaeological and Cultural Resources

SB 18
California Senate Bill 18 (SB 18) was passed in 2004 and requires cities and counties to consult with California Tribal Governments anytime a city or county amends or adopts a General Plan. The requirements of SB 18 are separate from the CEQA process, but can be engaged at the time of CEQA review.

According to PRC section §65300, each City and County is required to adopt a General Plan which is meant to guide future development over the next 20 years. California Government Code (GC) Section 65352.3 and Section 65562.5 requires tribal consultation at the time of a General Plan or Specific Plan adoption or amendment, or a decision involving the designation of Open Space. Prior to the adoption or any amendment to a General Plan, or a change in land use involving open space, the local government shall conduct consultations with California Native American tribes for the purpose of preserving or mitigating impacts to Cultural Places. SB 18 requires notice to and consultation with California Native American Tribes that are on the contact list maintained by the California Native American Heritage Commission.

SB 18 refers to Cultural Places described as places, features, and objects described in PRC Sections 5097.9 and 5097.995 as Native American sanctified cemetery, place of worship, religious or ceremonial site, or sacred shrine and Native American historic, cultural, or sacred site, that is listed or may be eligible for listing in the California Register of Historic Resources pursuant to Section 5024.1, including any historic or prehistoric ruins, any burial ground, any archaeological or historic site.

Local governments notify tribal governments and tribes respond if they wish to participate in consultation. Local governments and tribes engage in consultation for the purpose of preserving a cultural place. PRC 21083.2 requires lead agencies to determine effects on archaeological resources and may recommend mitigation in the form of: Planning construction to avoid resources, deeding sites in permanent easements, capping or covering before building, or planning parks, open space to incorporate sites. PRC 21084.1 states that Substantial adverse change in a historical resource is a significant effect on the environment. Historic resources include resources listed or eligible to be listed in the California or a local registry. Not being listed or eligible for listing does not preclude a lead agency from determining something may be a historical resource.

361 acres of the Banning Ranch site are under the jurisdiction of the County of Orange with a General Plan land use designation of Open Space. The County of Orange has not amended the General Plan to change the land use designation to allow for residential or commercial use on the site, and therefore SB 18 Consultation between the County and Tribal Governments has not yet occurred. Approximately 40 acres of the Banning Ranch site are under the jurisdiction of the City of Newport Beach. The City of Newport Beach adopted a land use designation of open space for the property (as primary use with an alternative use as residential village with retail and parks if not acquired for open space within a set amount of time) in 2006, that was voter approved. The Primary use of open space includes the consolidation of oil operations, the

restoration of the wetlands, and provisions for a nature educational facility and active parks to serve surrounding neighborhoods.

At the time the General Plan was adopted and the EIR was certified in 2006, the City was required to engage in SB 18 consultation with the local Tribal Governments. However, at that time of consultation, the site was not listed on the Native American Heritage Commission's list of sacred lands. The site was not added to the list until early 2016. Some tribal governments have commented that they were not contacted for the SB 18 consultation, nor were they contacted to participate in the initial planning and scoping and testing done under the CEQA process in 2009.

Because of the status as a sacred land (listed in 2016) since the EIR was certified (in 2012), and because of the recent addition of AB 52 to the CEQA process, some tribal groups assert that there has been no meaningful consultation between the tribal governments and the lead agency, or local government, to resolve tribal concerns. The NAHC has dealt with this issue in the past at other project sites and has stated that without a thorough archeological investigation until late in the environmental decision-making process, decision-makers do not have sufficient information to advise them or to adequately ascertain the impacts of a project.

AB 52
SB18 is triggered preceding an adoption or amendment of general plans or specific plans or open space designations (Gov. Code § 65352.3, subd. (a)(1); § 65562.5), but Assembly Bill 52 (AB 52) is triggered with all CEQA review for which an NOP, Notice of Mitigated Negative Declaration or Notice of Negative Declaration is filed or issued after July 1, 2015 (Stats. 2114, ch. 532, § 11(c)).

The goals of Tribal Consultation under AB 52 include: gathering information in order to preserve the options of avoidance of cultural resources or preservation in place early in the planning process, to build working relationships with tribes that are traditionally and culturally affiliated to the project area, to avoid inadvertent discoveries of Native American burials and work with tribes in advance to determine treatment if burials are inadvertently discovered. Tribes must contact the local government to request consultation with the lead agency.

If the request for consultation is made, environmental documents cannot be released until consultation has been initiated. (Pub. Resources Code §21080.3.1, subd. (b)). Environmental documents for a project with a significant impact on an identified tribal cultural resource cannot be certified until consultation, if initiated, has concluded. (Pub. Resources Code § 21082.3, subd. (d)(1)). Under AB 52, Consultation is concluded when either of the following occurs: The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists to a tribal cultural resource; or a party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code § 21080.3.2, subd. (b)).

Mandatory topics of Consultation include exploring alternatives to the project, recommended mitigation measures, and identification of significant adverse effects. Other discretionary topics of Consultation include the types of environmental reviews necessary for the project, the significance of tribal cultural resources, the significance of the project's impacts on the tribal

cultural resources; and if necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend. (Pub. Resources Code § 21080.3.2, subd. (a)).

Because the Newport Banning Ranch proposal was certified with a mitigated negative declaration in 2012, before the passage of AB 52, the lead agency, the City of Newport Beach, did not engage in the above described consultation with the local tribal groups. However, if a subsequent, supplemental, or addendum to the EIR is required as a result of the changes or new information since the certification of the EIR, the City will be required to engage in AB 52 consultation with tribes that request it.

Section 106

Because at least 3 archeological sites are eligible for listing on the National Register, SHPO will get involved in evaluation of the resources and to consult with local tribes when Section 106 Consultation is required concurrently with Federal approvals, in this case, the Section 404 permit from the US Army Corps of Engineers (Army Corps). Army Corps will need to do a Jurisdictional Delineation of the Waters of the US that are on the Banning Ranch site (wetlands, vernal pools, and erosional streams) and issue a permit for the project and any mitigation that is required. Army Corps will also initiate a US Fish and Wildlife consultation at that time to obtain a biological opinion of the federally listed species on the site and the status of the critical habitat areas.

Section 106 requires Federal agencies to take steps to identify historic (and prehistoric) properties or sites, including consulting with SHPO and possibly with the Tribal Historic Preservation Officer, and seek information from the Native American tribes in the area that have cultural knowledge of the site, and ultimately determine if the project will impact the historic qualities of the property or site. A property can be deemed eligible for listing in the National Register by a tribal government or a professional archeologist through a nomination process. A property can be added to the National Register by a consensus determination of eligibility, where Federal decision makers and SHPO can determine if the property meets the criteria for listing.

Owner objections may affect the listing of the entire property, but not the eligibility and not the identification of the boundaries of archaeological sites or traditional properties. If the private owner of a property objects to listing, the property (with boundaries based on an objective assessment of the full extent of the significant resources) may be determined eligible for the National Register but not listed. Properties listed and eligible for listing are afforded the same protections.

In the case of Banning Ranch, SHPO will require Army Corps to consult with the non-federally recognized tribes of the region, if they request it. SHPO will review the consultation and will search for any recorded sacred lands files. The local tribes are able to review areas of concern, suggest additional indirect impacts of the project that may occur to both the archeological sites and the cultural attributes of the property that Army Corps may not be aware of, determine the status of the property as eligible for listing on the National Register, and request protective measures including avoidance. If there are adverse effects of the project, the parties (Army

Corps, SHPO, and the local tribal governments) will enter into an agreement (MOU) to formalize any mitigation measures that must occur as a result of the impacts of the project.

Section 106 regulations, section 800.4(c)(1) requires federal agencies to acknowledge the special expertise of Native Americans and their cultural knowledge in assessing the eligibility of historic properties that may be of religious or cultural significance to them. Because the site is now in the Sacred Lands File, and because this listing includes information about how 4 of the 8 known archeological sites may be connected and are believed to be a village site, SHPO will review that information at the time of the Section 106 consultation. SHPO could make the determination that the complex of the 4 archeological sites or all known archaeological sites should be treated as 1 large site eligible for listing in the National Register, or could determine that the entire 401 acres of the property are considered sacred lands and a Traditional or Tribal Cultural Landscape that may be eligible for listing in the National Register as a Traditional Cultural Property.

A Tribal Cultural Landscape is any place in which a relationship, past or present, exists between a spatial area, resource, and as associated group of people whose cultural practices, beliefs, or identity connects them to that place. A tribal cultural landscape is determined by and known to a culturally related group of indigenous people with a relationship to that place rather than being determined by external criteria. Relationships may vary from group to group and may be defined temporally or geographically through oral traditions and cultural practices. Because of the age of archaeological sites and their ability to represent multiple time periods spanning thousands of years and various indigenous migration and settlement patterns of occupation over time, one area can hold significance for many groups. Multiple tribes may hold knowledge about and connections to the same place, as is the case with Banning Ranch.

A Traditional Cultural Property is considered by the National Register to be a type of significance rather than a property type, is determined based on a set of specific criteria, and it can contain and often does contain a complex or a district of 1 or several archeological sites. In the context of eligibility determination or nomination to the National Register, intrusions if severe enough may compromise the property's integrity. In planning subsequent to nomination or eligibility determination, the Advisory Council on Historic Preservation’s regulations define "isolation of the property from or alteration of the character of the property's setting" as an adverse effect "when that character contributes to the property's qualification for the National Register" (36 CFR 800.9(b)(2)). Similarly, the Council's regulations define as adverse effects "introduction of visual, audible, or atmospheric elements that are out of character with the property or alter its setting" (36 CFR 800.9(b)(3)). To assist in determining whether a given activity outside the boundaries of a traditional cultural property may constitute an adverse effect, it is vital that the eligibility documentation evaluate those qualities of a property's visual, auditory, and atmospheric setting that contribute to its significance, including those qualities whose expression extends beyond the boundaries of the property as such into the surrounding environment. Traditional Cultural Property contributing attributes that may be protected can include a site’s view shed, sense of feelings (wind, cool air, vegetation smells, overall presence of the site) and can even include sounds (wildlife sounds, the lack of noise from urban life such as cars on the roadways, sounds of ocean waves, etc.)

A Traditional Cultural Property can be a Tribal Cultural Landscape and is broader than the individual archeological sites, and is often a religious or ceremonial site because of unique landscape features, such as a mountain top or a bluff top, a place with significant natural views, a place with rivers or estuaries, special vegetation or wildlife that may contribute to its significance, a place with evidence of cultural traditions or evidence of burials, or a place with religious artifacts or monuments. As stated above, Native American tribal groups with ties to Banning Ranch believe that the entire 401 acres of the site will rise to the level of this significance and is eligible for listing as a Traditional Cultural Property. Tribal governments that identify Traditional Cultural Landscapes often equipped themselves to represent their interests and are concerned with and participate in ongoing management grounded in cultural knowledge, and implementation of site restoration, protection, planning, and land management.

Governor's Order

Executive Order B-10-11 requires that all State Agencies engage in Government-to-Government Consultation. The 2011 order states: *it is the policy of this Administration that every state agency and department subject to my executive control shall encourage communication and consultation with California Indian Tribes.* State Government staff must consult on projects within their jurisdiction with Tribal Government representatives with ties to the property in question. Sometimes this involves several tribal governments for one site or one project. Additionally, Tribal governments contacted must be from both federally recognized and non-federally recognized tribes. In California, there are 111 federally recognized tribes and approximately 60 non-federally recognized tribes and the Native American Heritage Commission acknowledges both and keeps a record of contact information for each area. In the case of Banning Ranch, there are 9 independent tribal entities with ties to the land. Executive Order B-10-11 requires state agencies to: engage in the timely and active process of respectfully seeking, discussing and considering the views of California Indian Tribes, Tribal communities and Consortia in an effort to resolve concerns of as many parties as possible.

Commission Staff Consultation Efforts

Commission staff has engaged all 9 tribal entities on the Native American Heritage Commission list, as well as known interested parties with Native American heritage and cultural affiliations, and Native American organizations that work directly with and speak on behalf of some tribal governments. Discussion topics included both archeological sites and cultural resources. The concerns that have risen from these consultations are mainly: the status of the Banning Ranch as sacred land and religious and ceremonial site, the status of the property and a Traditional Cultural Landscape, any ground disturbance must include Native American monitors and include as many tribal groups as possible, the lack of adequate testing for archeological resources done to date, the presence of additional burials on the site, the connection of the site to the larger prehistoric village of Genga and other regional religious sites and villages, and the cultural connection to the land and the biological resources of the site. Other comments include some tribal groups not being contacted to participate in the project planning under CEQA review in 2009 and not being contacted by the applicant or invited to engage in consultation at all until June 2016. Archaeological documents and studies were not shared with the tribal groups until June 2016 and the tribal groups are concerned with the limited amount of time to review past archeological documents and cultural documents and respond to the project proposal and evaluate the project's impacts on the archeological sites and the cultural significance of the site,

while attempting to participate in the monitoring of the site's ongoing investigations with little advanced notice.

As required by the governor's order, staff has met with representatives of all the Native Nations on several occasions as a group, as well as separately, and with various tribal entities in an attempt to address the concerns expressed. While there is some disagreement among the parties, there is mostly a consensus that the land is a religious and sacred site and that the significance of the 401 acres is not diminished by the disturbed archaeological deposits found to date and the disturbed areas are not a representation of the archeological and cultural resources and significance that exist on the site. Staff has attempted to address the concerns to the maximum extent feasible through the conditions of approval, discussed in detail below.

Regional Cultural Sites and Past Commission Actions

The Native American Heritage Commission (NAHC) identifies and catalogs cultural resources (i.e., places of special religious or social significance to Native Americans, and known graves and cemeteries of Native Americans on private lands) in California. NAHC is charged with the duty of preserving and ensuring accessibility of sacred sites and burials, the disposition of Native American human remains and burial items, maintaining an inventory of Native American sacred sites, and reviewing current administrative and statutory protections related to these sacred sites.

At the request of the Tribal Chairman of the Gabrieleno Tongva San Gabriel Band of Mission Indians, the state NAHC added the "Banning Ranch Cultural Properties and Landscape" to the NAHC Sacred Lands Inventory because of its cultural significance, which this quote describes:

> *The Banning Ranch sites represent the activities that the ancestors carried out centuries ago and are named in our oral traditions and songs, including artifacts, plant gathering areas, and natural features of the landscape that have spiritual meaning. As such they hold great significance for Gabrieleno descendants as a sacred power area, a place where they could gather to honor the ancestors and gain spiritual renewal. The fact that many of the* [archaeological] *sites have been disturbed does not diminish the area's spiritual significance as the place of our ancestors.* [February 24, 2016 letter from Anthony Morales, Tribal Chairman, to NAHC in support of nomination.]

Additionally, one Juaneño-Acjachemen tribal government was under the impression they had listed site on the Sacred Lands Inventory before 2016, but no records were found for that listing.

According to the National Register's *Guidelines for Evaluating and Documenting Traditional Cultural Landscapes,* because properties of traditional cultural significance are often kept secret, it is not uncommon for them to be "discovered" only when something threatens them--for example, when a change in land-use is proposed or a new development project is proposed in the vicinity. The sudden revelation to local governments, applicants or developers with economic or political interests in the proposed project can lead to charges that the cultural significance of a property has been invented only to obstruct or otherwise influence the project. While this could be true and should be considered along with archaeological or ethnographic evidence, it is often the case that until the change was proposed to the property in question, there was simply no reason for the disclosure.

In past Court decisions (170 Cal App 3rd 604), the Court held that the NAHC has jurisdiction and special expertise, as a state agency, over affected Native American resources impacted by proposed projects, including archeological places of religious significance to Native Americans, and to Native American burial sites. In past Commission actions (HNB-MAJ-1-12, the Ridge) the NAHC indicated that areas adjacent to the property in question that contained burials should be protected and should be avoided if at all possible pursuant to CEQA Guidelines Section 15370 (a) to avoid destruction of cultural resources. SHPO also indicated that because the property was part of a very large village complex ranging from 9000 to 2000 years old (Before Present) and all the known archaeological sites were connected, and the property was adjacent to sites with hundreds of Native American burials that were listed on the National Register, SPHO identified the property as a Traditional Cultural Property and determined that the impacts of the project could not be mitigated to a less than significant level, and therefore could be not found consistent with Section 30244 of the Coastal Act. Ultimately, the property in question was protected by the Commission because of this determination.

The situation at Banning Ranch is similar. Banning Ranch is immediately adjacent seaward of Fairview Park in Costa Mesa where a prehistoric village site of 18 acres was found, called Genga. Over the years, more than 235 burials have been found within the park site, as well as countless other objects, including shells, religious and ceremonial objects and asphaltum (crude oil) lined baskets. The village site spanned 3 time periods: millingstone, intermediate, and late pre-historic horizons, which is very unique. Slightly farther inland, following the Santa Ana River course, 2 miles inland of the Banning Ranch northern property line, a small village site connected to the larger village of Genga was found with 20 burials and additional religious and cultural objects. 3 miles inland of the Banning Ranch property line another small village site was found with 19 more burials, as well as whale vertebrae and fishhooks, shells, and other objects. These village sites contain objects that were collected from the ocean. The inhabitants of the inland village sites likely would have used or traveled through the Banning Ranch site and surrounding areas to access these coastal resources.

Ethnographic interviews yielded information about the connection between Genga and the smaller surrounding village sites. It is described as a village complex, and all the villages were found less than 1 mile from each other. All of the sites were found on the Western Newport Mesa, where Banning Ranch is located today. Because of this, Native Americans and some professional archeologists believe that the Banning Ranch site is another village site that has connections to the larger village of Genga.

Archaeological Studies on Banning Ranch

To date several cultural resource studies have been conducted on the Banning Ranch site. Archaeological sites were originally found in the 1930s, but not given identification numbers (ORA) until 1964, 1979, 1980, and 1998 investigations. Additional testing was done at the time of CEQA review in 2009 and further investigation was done in August 2016.

1930s investigation

Archeological records of the inland adjacent Fairview Park site, indicate that a dairy site (the Banning Dairy Site), located 1 ½ miles south of Fairview Park contained a burial with a

decomposed skeleton, under which was a rough floor of sand stones. Two (2) minor residential bases on the Banning Ranch site are located almost exactly 1 ½ miles south of this point in Fairview park. According to this record, the burial was located on the Banning Ranch site, near these residential bases. The record goes on to indicate that the investigation started on the Banning Ranch site because the archeologist at the time believed that there would be a community burial site somewhere around that location.

Native Americans believe that many more burials will be found on the site if it is subject to grading and ground disturbance. Native American tribes note that ancestors were often buried in coastal locations overlooking water sources, and much evidence exists to support this supposition. The discovered prehistoric villages surround Banning Ranch had many burial locations that were located along the bluffs adjacent to the historic flow of the Santa Ana River facing West. Native Americans believe that there are ancestor burials located along the western bluffs of the Banning Ranch site, facing the river and the ocean.

1980s investigation
As a result of additional oil well drilling in the 1980s, Mobil Oil hired archaeologists to investigate sites and perform data recovery and excavation of areas that were planned to be oil wells prior to drilling. Studies were done by VanHorn in 1980-1982 which identified 2 minor residential bases and sites of significance. A small "roasting platform" made from fire - cracked rock was found (and left in place) which indicates an early phase of the prehistoric occupation of the site. The archeology notes indicate that the depth of this deposit exceeded 140 cm, at which point digging was stopped due to lack of funds and time. The full potential of this deposit was not reached and it still holds significance. The report notes that the site prehistoric, millingstone, and paleocoastal time periods may be represented:

[There is] evidence that the Late Prehistoric or Gabrielino Horizon and the preceding Intermediate Horizon are both stratigraphically represented at the site…prehistoric people exploiting a broad array of animal and plant food, coastal sites typically comprising dense shell middens. Prior to this time, particular emphasis seems to have been placed upon seed gathering as evidenced by a preponderance of stone milling tools. These tools were unknown to the earliest inhabitants of southern California, who seem to have survived principally by hunting. It is possible that this entire sequence is represented at [this archeological site]…

VanHorn also draws comparisons between the Banning Ranch site and the Genga site: *The general sparsity of shell in the older horizon suggests strong similarities with Ora-58 [the Fairview Site] situated about a mile to the north.*

2009 investigation and Eligible sites
The 2009 investigation done for the preparation of the EIR did not investigate for new, unknown sites, but re-visited the 8 archeological sites that had been previously documented in order to determine their eligibility for listing on the National Register. In the process, the archaeologists identified a third residential base, that is considered a major residential base.

To recap the findings of the EIR, in the opinion of the archaeological consultant that prepared this portion of the EIR, three of the sites (CA-ORA-839, CA-ORA-844B, and CA-ORA-906) are eligible for listing in the California Register of Historic Resources (CRHR) and the National

Register of Historic Places (NRHP). These three sites, in combination with other non-contributing archeological sites and natural features on Banning Ranch, make up the Native American traditional cultural landscape.

A resource is eligible for listing on the NRHP if it meets the following criteria found in Public Resources Code Section 5024.1 and 14 California Code of Regulations Section 4852):

> A. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
> B. Is associated with lives of persons important in our past;
> C. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
> D. Has yielded, or may be likely to yield, information important in prehistory or history.

The EIR archaeological consultant further opined that one of the cultural landscape's archaeological sites rises to the level of a unique archaeological resource because it contains data that supports the theory the region was occupied during the 3 periods: Late Prehistoric, Millingstone, and the Intermediate Period, which had not been supported by other sites. It also yields information about how Native Americans in coastal Orange County migrated and settled due to changes in sea level rise. Public Resources Code Section 21083.2(g) defines a unique archaeological resource as follows:

> [an] archaeological artifact, object, or site about which it can be demonstrated that, without merely adding to the existing body of archaeological knowledge, there is a high probability that it meets any of the following criteria:
>
> 1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
> 2. Has a special and particular quality such as being the oldest of its type or the best available example of its type.
> 3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

During the CEQA process, archeologist evaluated the archeological sites that were previously found on Banning Ranch. The evaluation re-visited 8 known archeological sites and completed the work to federal level standards (Section 106 of the NHPA) because of the need for federal permits. 3 archeological sites on the Banning Ranch property contain 3 residential bases that are eligible for listing on both the National Register of Historic Places (NRHP) and the California Register of Historic Resources (CRHR). The EIR states that final determinations are to be made by the State Historic Preservation Officer (SHPO).

Other resources (5 other archaeological sites) found on the site include thick deposits of shell and lithic scatter, and further evidence of a large population of inhabitants on the site, supporting the

idea that the Banning Ranch site is another prehistoric village site. All 8 known sites are included on the "Banning Ranch Cultural Properties and Landscape" Sacred Lands file with the NAHC.

Because these sites are eligible for listing on the NRHP they are protected by the Office of Historic Preservation. Sites that are on the National Register and sites that are eligible for listing are afforded the same protections. As proposed, these 3 sites are avoided by the development plan. Additional testing done in August 2016 determined the boundaries of these sites to ensure the development plan avoids them.

August 2016 Study
Because the EIR investigation focused only on the eligibility of listing for each known site, and there had not been thorough investigations to determine if there were additional sites that may be impacted by the proposed development plan, the applicant was informed on several instances through incomplete letters that additional testing would be required and an Archaeological Research Plan (ARP) would need to be submitted to guide further testing. These documents are typically peer-reviewed and reviewed by Native American groups with ties to the land in question, which is particularly important for Commission staff because there is no Commission Archeologist. When the applicant filed for dispute resolution over non-filling letters, these issues were dropped. When archeological documents were finally released to local tribal groups in June 2016, there were many concerns noted with the lack of adequate testing to date.

Ordinarily, archaeological testing on sites where there are known archaeological resources should be carried out through a permit for the implementation of an ARP. The goal of the ARP is to determine where development can be allowed that will avoid impacts to archaeological resources and that those resources can be preserved in place. The ARP must be peer reviewed and be subject to review and comment by the State Historic Preservation Officer (SHPO) , Native American Heritage Commission (NAHC) and affected tribal groups. Native American monitor(s) must also be present during implementation of the ARP. The ARP must also include the preparation and submittal of a final report. The final report would also be subject to the same review and comment of the ARP.

The applicant submitted an ARP (CDP application 5-13-032) in July 2014 for the archaeological testing/salvage that was previously carried out during investigations for the EIR in 2009. The ARP that was submitted only revisited already known sites, and focused on the archeological sites' conditions and whether or not the sites were eligible for listing on the California Register of Historic Resources or the National Register of Historic Places. The ARP did not demonstrate that the archaeological testing already performed was adequate to determine that the proposed development (5-15-2097) would not impact known or unknown archaeological resources. Since the ARP was drafted, Native American groups with ties to the land have stated collectively that adequate testing has not been done and that additional testing should precede any approved development plan.

The ARP notes: *The fact that the Newport Banning Ranch Project site is located in this coastal, lagoonal habitat, most of which has been destroyed and developed throughout most of Southern California, and that little to no archaeological investigation has taken place here, creates its*

own "data gap" in Southern California coastal archaeology. This makes any relevant information gathered as a result of the study that much more important.

As such, additional testing to determine if all sites (sites currently known and any others that are yet-to-be discovered) are avoided by the proposed development plan subject is necessary. As a result, the applicant applied for a second permit (CDP 5-16-0649) to implement a revised ARP that was approved at the August 2016 hearing. The applicant conducted Ground Penetrating Radar (GPR), which identified anomalies. The permit approved the test pits to investigate the anomalies, determine the approximate borders of known archeological sites within close proximity of the proposed development footprint, and to test for potential additional archeological sites that are yet to be found within the development footprint. A summary of the testing was submitted to Commission staff on August 23, 2016, and to the Native American groups, and the NAHC for review and comment. The test results have not yet been reviewed, nor have any comments yet been received, and are not reflected in this report.

Resources found on Banning Ranch

Four temporal horizons are seen along the Southern California coast: Early Man, Milling Stone, Intermediate, and Late Prehistoric:

Cultural Period	Radiocarbon Dates
Paleo-Coastal Period (PC)	
PC	Prior to 8000 YBP
Milling Stone Period (MS)	
MS1	8000 to 5800 YBP
MS2	5800 to 4650 YBP
MS3	4650 to 3000 YBP
Intermediate Period (INT)	
INT1	3000 to 2300 YBP
INT2	2300 to 1350 YBP
Late Prehistoric Period (LP)	
LP1	1350 to 650 YBP
LP2	650 to 200 YBP
YBP: years before present Source: Mason and Peterson 1994; Drover et al. 2001a:17.	

The ARP describes how unique the deposits are at the Banning Ranch site:
The Newport Banning Ranch archeological sites allow for a different perspective on resource procurement and settlement as the sites are farther from: the upper Newport Bay, the freshwater marsh in Irvine, and the San Joaquin Hills, and the rocky coast of Corona del Mar.

On Banning Ranch, at least three time periods are represented, and possibly all four in cultural deposits ranging in depth from 60 cm to 240 cm and ranging in size from a meter to 3 acres. This is very rare for Coastal areas in the region. On the Banning Ranch site, the Late Prehistoric Period is represented by the presence of beads and prehistoric tools.

The rarely seen early intermediate period is also represented on the site. The ARP explains that environmental changes in Newport Bay region are related to an absence of occupation in the early and middle intermediate period (3000-2500 YBP) during a decrease in sea level converting

the saltmarshes to freshwater, which resulted in a decrease in available shellfish (a main food source). A settlement shift may have occurred during this period away from these freshwater areas. As a result, very little is known about the early intermediate period. The ARP notes that very little is known about the intermediate period major settlement shifts from a mobile year-round system to a sedentary territorial system. What is unique about the archeological deposits on the Banning Ranch site, is that there is evidence (shellfish) of settlement during the early intermediate period.

The Millingstone Period is represented on the site indicating rocky shore habitat exploitation with food sources such as shellfish, shark, sea otter, and other marine species.

What is even more fascinating, is that one archeological site on Banning Ranch may pre-date the onset of the Milling Stone Horizon (i.e. prior to 6,000 YBC) and may represent two major Periods of occupation: the Late Prehistoric Horizon, and a shift from the Milling Stone Period to a pre-Milling Stone (cf. Paleocoastal) Period. Given the limited regional knowledge of the occupation and habitat of the area, the resources on NBR can provide unique chronological and subsistence information and change about two or possibly three prehistoric cultural periods. The 2009 investigation notes:
The data from this site could easily contribute to the research design categories of chronology and subsistence and settlement patterns. Again, little is known about
the prehistoric use of the mouth of the Santa Ana River and its estuary; therefore, the data from this site could easily contribute to research questions regarding chronology and subsistence and settlement pattern.

In summary, 1 burial, 2 minor residential bases and 1 major residential base have been found to date on the site, and several areas of thick shell deposits, a roasting platform, as well as tools and other objects.

Project Impacts on Cultural Resources and Archaeological sites
Many Native Americans and professional archaeologists commented that because boundaries of the archeological sites had not been determined, the Commission cannot be sure that the development footprint avoids these resources. Because some of the known archaeological sites are 2-3 acres in size, it is important to determine the boundaries of these areas to ensure that they are not impacted by the proposed development.

Additionally, many Native Americans and professional archaeologists commented that the testing that had been done to date was inadequate to determine if there are additional archaeological sites within the proposed development footprint. Prior to August 2016, there was no investigation within the proposed development footprint, and the ARP did not discuss the potential for finding any more archaeological resources within the development footprint. In past Commission actions, the Commission has not approved a permit for development in locations of known archaeological significance without an ARP that has been peer reviewed and that adequately investigates the potential for additional archaeological resources within the proposed development footprint.

Impacts of Development Plan
The 3 known archaeological sites that are eligible for listing would be avoided by the proposed residential and commercial development plan and are conditioned to be avoided by the proposed soil clean-up, but the other sites would be impacted by the planned development. Because the proposed project involves significant grading, there is a high likelihood of discovering additional resources that are currently unknown. Only as conditioned to concentrate development within the buildable areas as shown on **Exhibit** 4 would the development likely avoid all currently known archeological sites.The Commission also imposes **Special Condition 17** which requires monitoring during grading. The development plan, as conditioned, is the least likely to impact any future yet-to-be discovered archeologist sites.

Impacts of Soil Clean Up
Complete avoidance of resources during the clean-up activities is possible and could be achieved by capping or avoidance of known cultural resource locations. In contrast, the applicant proposes to mitigate for any impacts caused to any unknown archeological resources by excavating (data recovery or salvage) the resources and donating them to the Cooper Center in Santa Ana, CA. However, this mitigation option is not most protective of the cultural resources and is not an appropriate treatment method in the opinion of many tribal groups.

Instead of the most protective mitigation measure, i.e. capping or avoidance, the applicant proposes to remove any yet-to-be found resources if impacted by oil clean-up. Capping of the resource site is only proposed as a secondary measure, to prevent further impacts to the site from foot traffic, erosion, etc. Data recovery excavation, again, is proposed for unknown resources as opposed to capping or redesign of the project to avoid the impacts. The applicant's plans do not include capping these resources, including any human burials found during grading.

The applicant's proposal includes mitigation measures which require that a qualified archaeologist monitor the grading and excavation activities and conduct salvage excavation as necessary. Additionally, a Native American representative is proposed to be present onsite during all grading and excavation activities.

As conditioned by **Special Condition 8**, sampling within 200 feet of archeological resources is required and shall be done in the least invasive way possible, to determine if clean-up is required in these areas. A plan based on this sampling is required to be submitted for Executive Director review and approval. Any work done near cultural resources would only be carried out if absolutely necessary, required and approved by the RWQCB, and if done in the least impactful way.

Impacts of Unpermitted Development
During investigations for the EIR, the required coastal development permit for the development activities associated with the resources assessment, including excavation through shovel test pits and hand units, was not secured, and thus, this archaeological testing was not subject to Commission review prior to its occurrence. Additionally, fire-affected rock was discarded during this investigation, which has yet to be mitigated.

Further, the 2010 archaeological investigation concluded:
Earth-moving activities associated with oil lease production have greatly disturbed all of the recorded cultural resources on the Project site. Disturbances that have affected cultural resources include road building, quarrying and preparation, closure, and rehabilitation of drilling pads. Fill, acquired from numerous locations on the property through time, was often utilized to create roads and pad sites in the lower wetlands.

In some cases, these disturbances have resulted in isolated cultural loci within sites as consequences of grading rather than cultural activities. The fact that disturbances have occurred to most sites does not diminish their scientific value in light of the general lack of knowledge regarding the prehistoric occupation of the Santa Ana River mouth estuary.

In 1982, 95% of ORA-843 had been destroyed by grading, but the portion that was left in good condition and recorded as very significant. During the 2010 investigation, ORA- 843 was not found significant and was lacking integrity indicating that the site had been subject to damage. This damage is yet to be mitigated.

Avoidance of Resources by Alternative Buildable footprint
In contrast to the applicant's proposal, the alternative development plan of the "proposed development areas" as conditioned, would lessen or avoid significant adverse impacts to known archeological sites on Newport Banning Ranch. **Special Condition 17** requires capping of the known sites and monitoring of grading and construction activities that have the potential of adversely impacting additional unknown sites and cultural resources that may be found during site grading and construction. The Special Condition outlines the procedures that must occur prior to development and if cultural deposits are encountered during the grading and construction, which includes a permit amendment to avoid any found resources, regardless of their significance or eligibility for listing.

The measures that are most protective of both known and unknown resources (capping and avoidance), which would lessen or avoid additional adverse impacts to cultural sites, would be consistent with previous Commission action (CDP 5-97-367, Hellman and HNB-MAJ-1-12, the Ridge). The proposed project, which results in avoidable impacts to cultural resources, is not consistent with the Coastal Act. Only as conditioned, can the project be found consistent with Section 30244 of the Coastal Act.

Conclusion
As described above, the Banning Ranch site will be subject to Section 106 of the National Historic Preservation Act, which requires federal agencies to take into account the effects of undertakings (projects) upon historic properties (including pre-historic properties). During this review process and before issuing a permit, Army Corps will have to engage the State Office of Historic Preservation (SHPO) and federally and non-federally recognized tribal governments, once the tribe has notified the agency of its intent to participate.

One step in the Section 106 process is to identify possible historic properties and determine their National Register status, which is done in consultation with tribes. The national status of 3

individual archaeological sites is already determined, however the status of the 3 archaeological sites in connection to the other non-contributing archaeological sites that have been destroyed and natural features, and the site as a Traditional Cultural Landscape and Sacred Land has not yet been evaluated and boundaries have not been determined for National listing.

Like any other types of historic properties, a property that once had traditional cultural significance can lose such significance through physical alteration of its location, setting, design, or materials. In some cases a traditional cultural property can also lose its significance through alteration of its setting or environment. For example, a location used by an American Indian group for traditional spirit questing is unlikely to retain its significance for this purpose if it has come to be surrounded by housing tracts or shopping malls.

The Sacred Lands listing of the Banning Ranch site as a traditional cultural landscape notes that the entire site was used for religious and medicinal cultural purposes, was a village site connected to the larger village of Genga, and that the oil operations on the site have destroyed the integrity of some archeological deposits but have not destroyed the religious and cultural significance of the site to date. However, the Native American tribe that listed the site and other tribal groups believe the introduction of housing and commercial development and roads across the site as proposed, with the introduction of noise, lights, impacts to the wildlife, etc. would destroy the character of the landscape and would threaten the cultural and religious significance of the property, which is currently primarily open space.

As of now, the site as a whole is not listed with SHPO and has not been deemed eligible for listing. However, additional testing may be necessary and additional review by Federal agencies is required. If the archeological sites are connected and NAHC or SHPO determines that it does constitute a traditional cultural landscape, then as conditioned the applicants are required to apply for a permit amendment to avoid parts of the land that are deemed eligible for listing on SHPO in order to be found consistent with Coastal Act policies. If burials or significant resources are found during grading, applicants are required to leave the burials in-situ and apply for a permit amendment to avoid them.

I. PUBLIC ACCESS AND RECREATION

The Coastal Act provides that development should maintain and enhance public access to the coast and encourages the provision of public coastal recreational. The following policies which encourage public access and recreational use of coastal areas are applicable to the proposal:

Section 30210 of the Coastal Act states:
In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.

Section 30252 of the Coastal Act states, in part:
The location and amount of new development should maintain and enhance public access to the coast by (1) facilitating the provision or extension of transit service, (2) providing commercial facilities within or adjoining residential development or in other areas that will minimize the use

of coastal access roads, (3) providing non-automobile circulation within the development, (4) providing adequate parking facilities or providing substitute means of serving the development with public transportation….(6) assuring that the recreational needs to new residents will not overload nearby coastal recreation areas by correlating the amount of development with local park acquisition and development plans with the provision of onsite recreational facilities to serve the new development.

Section 30253(d) of the Coastal Act states, in relevant part:
New development shall do all of the following:

(d) Minimize energy consumption and vehicle miles traveled.

Visitor Serving Uses and Recreation and Public Access
The proposal includes a resort complex on the southern mesa, a low-cost hostel, visitor serving commercial, bluff trails, a park, and public parking. The Resort Inn is proposed to be a 75 room high-cost resort located on the southern mesa of a coastal bluff overlooking PCH. The Resort would be developed in conjunction with visitor serving commercial and retail space, and a parking garage. The resort would include a lobby, a spa, a kitchen, a restaurant, and a pool. The approximate square footage per guest room would be 900 sq. ft. and there would be some number of suites. The Resort Colony would also include a 20-bed low-cost hostel. The project includes development of approximately 5 acres of active public park. The proposed development includes parklands dedication to the City of Newport Beach. The Southern Resort, hostel, retail, and Community park would impact areas on the site that supports foraging Burrowing owls and it also impact large semi-contiguous patches of purple needle grass.

These elements of the proposal are consistent with Section 30252 above, however the resort colony and park would have permanent impacts to purple needle grass, gnatcatcher habitat and Burrowing Owl habitat, and ESHA scrub communities. As discussed in finding for ESHA above, these impacts cannot be found consistent with Section 30240 of the Coastal Act. As proposed, the project is inconsistent with Section 30210 which requires that the development of public recreational opportunities shall not be at the expense of the overuse of natural resources. Only as conditioned by **Special Condition 1** for a revised site plan that avoids ESHA can the project be found to be consistent with Sections 30210 and 30252.

Section 30210 requires maximum access, which shall be conspicuously posted. The applicant has proposed many public facilities. **Special Condition 16** requires a signage plan to direct the public to the public access and recreation easement areas on the project site and adjacent public access and recreation areas accessible from the site, as well as direct the public to refrain from entering and disturbing conservation areas on the project site and educates the public about the habitat value and lists common disturbances to wildlife which are to be avoided, including domestic pets, littering, loud noises, lights, etc. Directional signage on the trails is required and interpretative signage for to environmental and cultural education. The condition limits the use of Community monuments and entry-signs into the development so as not create the appearance that the community is private. Only as conditioned, is the project consistent with Section 30210.

Parking

The Commission has consistently found that a direct relationship exists between the provision of adequate parking and the availability of public access to the coast. Section 30252 of the Coastal Act requires that new development should maintain and enhance public access to the coast by facilitating the provision of transit service and providing adequate parking facilities. Section 30253(d) of the Coastal Act requires that new development minimize energy consumption and vehicle miles traveled. Therefore, in order to conform to the requirements of the Coastal Act, the proposed project must provide adequate parking in order not to negatively impact parking and coastal access.

Public parking would be provided throughout the site to support access to and use of the proposed park and trail system and proposed on public streets, within community parks, and additional public parking in the retail and report areas. Parking would be available for use by coastal recreationists and park users as capacity permits. The applicant proposes all on site parking to be free and open to the general public. The Conditional Use Permit for the resort issued by the City of Newport Beach indicates that 63 parking spaces are required for the resort and hostel. All single family homes would have 2-car garages to provide sufficient parking and multi-family homes would have parking structures with sufficient spaces for the residences. The residential structures are all proposed to be self-parked and meet the parking standards of the City of Newport Beach zoning code. The site plan indicates there would be 1 parking structure proposed in the mixed-use Urban Colony and 1 in the Southern Colony, however complete architectural and construction plans were not submitted.

While the project may be consistent with the Coastal Act Sections above, the development of the Southern Mesa would not be consistent with Section 30240 and would have detrimental impacts on the habitat present in the south of the site. Only resource-dependent uses are allowed on the Southern Mesa including the development of a trial network to be consistent with Section 30240.

Transportation

Section 30253(d) of the Coastal Act requires that new development minimize energy consumption and vehicle miles traveled. Therefore, in order to conform to the requirements of the Coastal Act, the proposed project must provide measures to minimize energy consumption and vehicle miles traveled and facilitate the provision of transit service. Section 30252 of the Coastal Act states that new development should include provisions for non-automobile circulation and provide adequate parking or provide alternative transportation. The proposed trail networks would provide for circulation across the site, as well as access to regional trails and the nearby coast.

The trail network can contain different types of trails for pedestrian use and wheelchair use, constructed with native soils, or decomposed granite or similar material and multi-use trails to allow for alternative transportation through the site and around the site. Non-automobile vehicles such as golf carts, bicycles, and automatic wheelchairs, and similar transportation methods could be allowed on multi-use trails, which shall also support pedestrians. Multi-use trails can be constructed with permeable paving, such as interlocking pavers, bricks, decomposed granite, permeable asphalt, or a similar material. These elements of the proposal, as conditioned by

Special Condition 4, are consistent with Section 30252 and are considered resource-dependent uses consistent with Section 30240.

Construction Traffic

As part of its proposed oilfield and clean-up plan, NBR proposes to treat and bury onsite hydrocarbon contaminated soils and debris (including road bed material and concrete waste). In order to carry out these proposed activities onsite, as well as other associated activities such as material stockpiling, concrete crushing, and clean soil harvesting (for backfilling clean-up excavations), NBR needs a substantial amount of space to operate. In the most recent plans provided to Commission staff (shown in **Exhibit 17**), NBR's configuration of these "logistics areas" encompassed approximately 50 acres on the upland mesa portion of the site, including roughly 20 acres in the central and southern mesa areas. As discussed in the prior section of this report on environmentally sensitive habitat area (ESHA), a substantial portion of the central and southern mesa has been determined to be ESHA and would therefore be unavailable for use during material treatment, disposal, stockpiling, and harvest activities, as required through **Special Condition 7**. The result of this is that NBR may not have sufficient area to carry out the entirety of its proposed material treatment and disposal operations onsite and may need to transport material offsite for treatment or disposal. While NBR had already proposed to transport offsite the most heavily contaminated material, additional material would likely also need to be removed.

The precise volume of material that may need to be transported offsite is unknown but can be roughly estimated based on the approximate total volume of material that would be generated during clean-up operations - between 270,000 and 314,000 cubic yards - and the space that remains available on the site to support NBR's proposed "logistics areas" outside of ESHA, wetland, ESHA and wetland buffers, cultural resource sites and other spatial constraints. Because NBR's latest plans indicate that approximately 50 acres would be needed for the logistics areas to address 270,000 to 314,000 cubic yards of material onsite, one can estimate that reducing the available area by 20 acres or 40% (the area of the proposed logistics areas within ESHA) would similarly reduce the onsite treatment and disposal volume capacity by 40% or between 108,000 and 125,600 cubic yards. This is the volume of material that may then need to be transported offsite. However, **Special Condition 7** establishes a process whereby this volume can be further reduced. Specifically, this condition would require that if NBR does not have sufficient land area to carry out all of its proposed material stockpile, treatment, processing, borrow, and disposal activities onsite, it shall implement alternative material treatment and disposal options to fit as much of these activities as possible onsite. Such alternative treatments would include the following:

1. As provided for the in the Santa Ana Regional Water Quality Control Board approved Remedial Action Plan, placement of clean, treated material within clean-up excavations in the lowland portion of the site (including any such excavations in ESHA, wetlands, ESHA buffer, or wetlands buffer in the lowland portion of the site) rather than disposal pits in the upland area;
2. Phasing clean-up and material treatment activities to reduce treatment volumes and areas needing to be processed at one time;

3. Offsite rather than onsite disposal of concrete waste that cannot be recycled and reused onsite;
4. Use of more selective extraction and removal techniques for waste materials such as dispersed asphalt-like material, gravel and concrete (such as targeted removal rather than grading) that reduces the volume of non-target material collected;
5. Use of direct loading of excavated materials onto trucks in place of stockpiling wherever feasible.
6. Reuse of removed asphalt, asphalt-like material, gravel, and concrete as roadbed, foundation, and construction materials whenever possible.
7. Off site disposal of soil and material volumes unable to be reused onsite or treated and disposed outside of ESHA, wetland, buffer, and cultural resource areas and lowland clean-up excavations.

Implementation of these measures are expected to substantially reduce the volume of material that may need to be trucked offsite, potentially by 50% or more. For example, measure four on this list alone – selective removal of dispersed roadbed materials – could reduce the volume of waste material generated during clean-up operations by as much as 40,000 cubic yards. This would be accomplished through the selective collection of dispersed roadbed material (chunks of asphalt-like material, piles of gravel, and concrete pieces) rather than the proposed mass grading to a depth of 18" of the 19.2 acres in which this dispersed material is located. While the grading approach would be effective, it would also generate over 46,000 cubic yards of material, most of it likely made up of non-target clean soil. Several other measures on the list - reuse of material rather than burial onsite and placement of clean, treated soil within clean-up excavations – would also likely reduce the volume of material needing to be trucked offsite by a substantial amount.

However, these estimated volumes are rough and their potential to reduce offsite truck trips is uncertain. Therefore, it is appropriate to consider a worst-case scenario in which the area on the site outside of spatial constraints (ESHA, wetlands, buffers, cultural resource areas, etc.) only has sufficient capacity to handle 25% of the estimated waste material volume and none of the measures listed above provide any benefit (essentially assuming a 75% reduction in the volume of material that can be treated onsite in an effort to address a worst-case scenario). This would leave 202,500 to 235,500 cubic yards of material that would need to be transported offsite for disposal. As described above, this is expected to be a great exaggeration but as a worst-case scenario, it nevertheless provides context. Using the assumption that the City of Newport Beach adopted in its EIR – that a transport truck has a capacity of 16 cubic yards – removing these volumes from the site would require between 12,657 and 14,719 round-trip truck trips over the entire three to five year period of clean-up operations (somewhere on the order of 6,000 to 10,000 individual trips to and from the site per year). For comparison, the beach replenishment project at Broad Beach included the transport of approximately 300,000 cubic yards of material - about 21,000 truck trips - over six months. Given the dense urban area surrounding the NBR site, these truck trips may have potential traffic implications that could negatively affect coastal access by increasing vehicle transit times to the coast or discouraging visitation.

To better understand these traffic implications, Commission staff compared this worst-case truck transit scenario with the traffic analysis provided in the City of Newport Beach's EIR for the project considered in that document (which was substantially larger than NBR's current proposal

and included 1375 residential units, 75,000 square feet of retail space, and a 75 unit resort). To evaluate the potential traffic impacts of this development on the surrounding area, the EIR used the well-established protocols, generation factors and equations for forecasting traffic from Trip Generation (8th Edition) published by the Institute of Traffic Engineers. With this approach, the EIR determined that the number of vehicle trips (defined as one-way vehicular movements, either entering or exiting the generating land use) that would be added to streets in Newport Beach and Costa Mesa once the project was completed would approach 15,000 *each day*.

For comparison, this is 30% to 60% more trips in a single day than would be generated over an entire year under the worst-case offsite transport of waste material scenario described above. Most importantly, however, the EIR also found that this amount of traffic (14,989 trips per day) would not cause any significant impacts after implementation of several mitigation measures designed to increase traffic flow at several of the most traffic-prone intersections near the project site.

The EIR also specifically considered traffic generated by the offsite trucking of waste material during the oilfield clean-up and while the volume of material in this analysis was substantially less than the worst-case scenario presented here, the EIR imposed hourly limits on construction truck traffic of 16 trucks per hour between June 1 and September 1, and 25 trucks per hour at all other times. Additionally, the EIR requires that the applicant prepare a Traffic Management Plan to obtain a Haul Route permit from the City that identifies the planned travel patterns for haul vehicles.

These traffic mitigation measures would enhance traffic flow in the project area and protect against adverse impacts to coastal access that may result from construction traffic associated with the proposed project. As such, they are included in **Special Condition 29** which would limit truck traffic to the 16 trucks per hour in the summer months and 25 outside the summer months described above and require NBR to submit a traffic management plan that includes implementation of the transportation improvement mitigation program elements described in the EIR for Newport Beach and Costa Mesa.

Conclusion

While the project may provide public recreational opportunities in the form of trails, public open space, parking, visitor serving retail, and a resort colony, the project does not do so consistent with the protection of the natural resources on the site. Several elements of the project proposed for public access and recreation would have direct impacts to ESHA. The project is largely consistent with section 30252, but is inconsistent with Section 30210 which requires that the development of public recreational opportunities shall not be at the expense of the overuse of natural resources and inconsistent with Section 30240 for resource protection. Only as conditioned for revised plans to avoid all impacts to ESHA and wetlands can the project be found consistent with the sections 30252, 30253(d) and 30210 above.

J. SCENIC AND VISUAL RESOURCES

Section 30251 of the Coastal Act states [emphasis added]:

The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas. New development in highly scenic areas such as those designated in the California Coastline Preservation and Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinate to the character of its setting.

Landform Alteration

Based on the applicant's 30% grading plans prepared by Fusco Engineering the proposed project would involve 1.4 million cubic yards of cut, and 1.36 million cubic yards fill, for a total of 2.77 million cubic yards of grading (**Exhibit 10**). This would constitute one of the largest grading projects to be undertaken in the Coastal Zone of California in recent years. Large areas of cut and fill are proposed to create level areas for the construction of homes, commercial development, and the park. There would also be areas filled for the construction of Bluff Road in Arroyos.

In addition to visual impacts, the landform alterations would require grading that has impacts upon biological resources within the arroyos and upon the mesa, including wetlands, impacts upon habitat buffer areas, and adverse changes to wetland hydrology. These impacts resulting from the proposed landform alteration are discussed more fully elsewhere in these findings in the "ESHA" and "Wetlands" sections.

The proposed project calls for the construction of three large areas for development designed to accommodate hundreds of housing units, the commercial retail and resort components. The area proposed for the Urban Colony is relatively flat as existing. Significant grading is proposed for the south village residential area, park, and resort colony. Heavy grading is proposed along the edges of the Main Arroyo at the location proposed for the water quality basin (near 16th Street) and the bridge abutments to support the Bluff Road bridge. The bridge would be 120 feet long with 40-50 foot long supports on either side and retaining walls would be constructed on the canyon edges. Fill is proposed on both sides of the Main Arroyo for the development of the bridge, which is also in the location of existing CBBS and CAGN habitat.

The proposed grading for the north village would change the landform from gently to steeply sloping natural grades to a relatively flat manufactured mesa and would fill wetland C and CC. This proposed development would degrade the natural landform appearance of the site and does not minimize the alteration of natural landforms as required under Section 30251 of the Coastal Act.

There are alternatives to the grading and filling of landscape features on the project site. As conditioned for revise plans grading would be confined to more level areas that do not require as much land movement, such as off of 17th street and avoiding the wetlands C and CC and

avoiding impacting the head of the North-South Arroyo. Alternatively, building pads could be fashioned to accommodate individual building footprints (such as on the Sea Ranch property) such that mass grading could be minimized or avoided. As conditioned, the character of the existing arroyo and other landscape features would be maintained.

The Commission finds that the proposed project does not minimize landform alteration. There is ample space on the project site where development could be accommodated without the substantial alteration of existing landscape. Therefore, the Commission finds that the proposed project is inconsistent with Section 30251 of the Coastal Act. Only as conditioned for revised grading plans based on the alternative "potential development areas" and that minimizes grading wherever possible can the project be found consistent with Section 30251.

Visual Resources

The coastal bluffs of the site contain natural bluff formations as well as rare coastal bluff scrub vegetation. The natural resources are visible from Coast Highway and comprise a visual resource. Coast Highway is known as a highly scenic area. The proposed development would include a 50 foot high resort (with architectural elements for a structure up to 75 feet high) atop of the coastal bluffs facing PCH.

The visual analysis of the proposed resort shows that the resort would be visible from PCH. The height of the proposed resort is not consistent with the character of the area. The surrounding developments are limited to 35 feet in height. The structures immediately seaward of the resort and bridge are within the City of Newport Beach's Shoreline Height Limitation Zone, which limits the height of all structures to 35 feet high. Development is required to be visually compatible with the character of the surrounding areas. Because of the significant height differences, the proposed developments would not be consistent with the character of the areas, and therefore is inconsistent with section 30251 of the Coastal Act.

As conditioned for revised plans to avoid impacting areas of ESHA, the project would not be visible from PCH and the tall structures would be located inland near other existing tall structures. As conditioned, the project be found consistent with Section 30251.

K. WATER SUPPLY

Section 30250 of the Coastal Act states:

> *(a) New residential, commercial, or industrial development, except as otherwise provided in this division, shall be located within, contiguous with, or in close proximity to, existing developed areas able to accommodate it or, where such areas are not able to accommodate it, it other areas with adequate public services and where it will not have significant adverse effects, either individually or cumulatively, on coastal resources. In addition, land divisions, other than leases for agricultural uses, outside existing developed areas shall be permitted only where 50 percent of the usable parcels in the area have been developed and the created parcels would be smaller than the average size of surrounding parcels.*

(b) Where feasible, new hazardous industrial development shall be located away from existing developed areas.

(c) Visitor-serving facilities that cannot feasibly be located in existing developed areas shall be located in existing isolated developments or at selected points of attraction for visitors.

Section 30250 of the Coastal Act requires that new development be supported by adequate services, including water supply, waste water capacity, and adequate road circulation.

Urban Water

The Urban Water Management Plan (UWMP), the guiding document for local and regional water planning, is required to be updated every five years. Water suppliers to the City of Newport Beach include Municipal Water District of Orange County (MWDOC) which receives its water supplies from Metropolitan Water District (Metropolitan). Local urban water providers, including the City of Newport Beach, are also required to prepare an UWMP to be updated every five years. Each UWMP is required to analyze the reliability of water sources available to the water provider over a 20-year planning horizon considering normal, dry, and multiple dry years and to identify any new specific water supply projects it expects to rely on to meet its projected water needs. For the local region (Newport Beach and MWDOC), one of the most critical aspects of the regional Metropolitan UWMP is the determination of Metropolitan's ability to meet current and projected local water demands.

In 2005, Metropolitan adopted a 2005 Regional Urban Water Management Plan (Regional UWMP), and MWDOC adopted a 2005 UWMP. The City subsequently adopted its 2005 UWMP which was prepared through coordination and planning with MWDOC and Metropolitan to maintain consistent assumptions in projecting supply and demand.

The 2010 Water Supply Assessment (WSA) for the proposed development identifies the sources of the City's water supply and provides information relevant to the supply of water received by the City to be used by the project based on information provided in the City's 2005 UWMP. As the 2010 UWMP was not yet available (published in May 2011), the WSA utilized the most up-to-date water supply information at the time which was contained in the 2005 Metropolitan Regional UWMP and the 2005 MWDOC UWMP relevant to the City's water supply. A combination of water sources were explored for the project.

Imported Water

The City receives imported water from MWDOC, of which the City is a member agency. In turn, MWDOC receives much of its supply from Metropolitan, of which MWDOC is a member agency. Metropolitan's 2005 Regional UWMP contains a water supply reliability assessment with a detailed evaluation of the supplies necessary to meet demands of its member agencies, including MWDOC, over a 25-year period in average, single dry-year and multiple-dry year periods. Metropolitan uses the Southern California Association of Governments (SCAG) regional growth forecast and direct input from its member agencies in calculating regional water demand projections for southern California.

Groundwater
The City obtains groundwater pumped from four wells owned and operated by the City and managed by Orange County Water District (OCWD.) The City's wells are located in the City of Fountain Valley, approximately five miles north of Newport Beach. OCWD regulates the supply of groundwater to the City through a Groundwater Basin Management Plan that is updated every five years with the most current plan adopted in June 2015. The only constraints affecting groundwater supply to the City are the pumping capacity of the wells and pumping limitations established by OCWD to maintain the groundwater basins.

Recycled Water
The City purchases some recycled water from OCWD. The City has programs and policies in place to promote increased recycled water use in future years including financial incentives as identified in the City's 2005 UWMP. Since the NBR-WSA was published, the OCWD Groundwater Replenishment System (GRS) went through an expansion which increased its water productivity from approximately 72,000 AF/year to 100,000 AF/year in 2015. The final expansion (currently being implemented) will increase productivity to 130,000 AF/year which will further increase local water reliability throughout Orange County and make the GRS the largest water recycling plant in the world. The NBR-WSA includes a summary of the historical and projected water supply for the City provided from all three of the above sources through the year 2030 based on information contained in the City's 2005 UWMP. As described in the WSA, the City's water supply from all three sources has steadily increased annually beginning with 17,820 acre feet per year in 2005 and is projected to continue to increase annually up to 21,716 acre feet per year until the year 2030 with the greatest percentage increase in supply occurring from groundwater sources.

Since the October 2015 Newport Banning Ranch Coastal Commission hearing, there have been several noteworthy updates in terms of local and regional water supply planning. As aforementioned, Metropolitan provides water to MWDOC and 25 other member agencies throughout southern California and serves as the primary distributor of imported water supplies for the region. Metropolitan's most recent Regional UWMP (2015) was released for public comment in February 2016. The Metropolitan 2015 UWMP represents the most current and available planning projections of supply capability and demand through 2040 developed across a collaborative process with the member agencies.

The analysis that goes into creating the Metropolitan Regional UWMP is extensive and includes utilizing computer models that run hundreds of model simulations to determine water supply availability scenarios with current and growing demands and variable levels of conservation. Direct communication with Metropolitan's member agencies occurs on an on-going and frequent basis regarding water supplies and demand to ensure that the member agencies are providing their most current long term demand projections and the most accurate data is being utilized for analysis. The 2015 UWMP highlights whether or not Metropolitan will be able to provide water supply to current and projected water demands throughout southern California. The Regional Metropolitan UWMP serves as the guiding document for

all other member agencies to prepare their own UWMPs which are due within six months following the release of MWD's Regional UWMP.

In addition to Metropolitan regional water planning documentation, MWDOC has also been independently conducting extensive water modeling studies to determine water supply reliability specific to Orange County. The studies show an overall reduction (~17%) of future water demand in Orange County which has surprised local water managers (OC Register, February 5, 2016) due to slower growth projections, increased water efficiency and water conservation.

MWDOC' s March 2016 Draft UWMP anticipates just a 3.27% increase in water supply demand during the next 25 years and expects to meet that demand using its existing and already planned water supply programs. Analysis from model simulations of water supply and demand include multiple climate scenarios and assume no additional conservation or water infrastructure projects (i.e. desalination, increasing stormwater capture, regional water transfer agreements) for purposes of testing the impact of potential future supply investments by Metropolitan, the Metropolitan member agencies outside of Orange County and also for projects within Orange County. Preliminary findings suggest a number of water supply options to reduce or eliminate potential shortages in the future.

The total average annual water demand for the revised proposed project (895 residential units) is estimated to be 267 acre feet per year, or 0.24 million gallons per day (mgd). This is less than the April 2016 estimated water demand of 400 acre feet per year despite the same amount of units because of an increase in high density residential units and decrease in single family units, commercial space and park space. The July 2016 proposed water demand of 267 acre-feet per year is also substantially less than the average 1,005 acre feet per year demand planned for in the City's 2005 UWMP and the 613.5 ac-ft evaluated in the 2011 EIR (1,375 Units). The WSA includes an evaluation of estimated future normal year, single dry-year, and multiple dry-year conditions. The evaluation demonstrated that City water supplies will be sufficient to meet future demands during single and multiple dry-year period conditions through the year 2040.

Since the October 2015 hearing, MWD's 2015 UWMP has been released with updated demand and supply projections. The report states that there is enough water supply capabilities to meet current and projected demands throughout southern California and the analyses show potential surpluses in various scenarios (see Table 2-5 below from the 2015 Metropolitan UWMP). Specifically it states:

Metropolitan has supply capabilities that would be sufficient to meet expected demands from 2020 through 2040 under the single dry-year and multiple dry-year conditions [Regional UWMP, 2016, pg. ES-5].

The member agencies, including MWDOC and Newport Beach, have also finalized their own projections of local water supply and demand knowing that MWD supplies can meet the forecasted demands through 2040. Both MWDOC and City of Newport Beach 2015 UWMPs

forecast that future water supply including MWD and local supplies will meet growing demands through 2040.

As conditioned, the project would be limited to residential development of approximately 411 units in the Urban Colony and 82 units in the North Family Village, resulting in a further reduced water demand of the project. However, approval of the WSA does not entitle the Newport Banning Ranch project any water rights, priority or allocation to any supply, capacity or facility, or affect the City's obligation to provide service to its existing customers or any potential future customers. The City Council's approval of the WSA does not constitute an entitlement to water rights or service for the project or a will serve commitment for water to the proposed project. The WSA is not the final water supply analysis that will be required for this project, from the City's perspective, and subsequent water supply evaluations are required for implementation of the project. **Special Condition 26** requires the applicant to submit evidence that the City of Newport Beach has committed to supply water to the development. Only as conditioned can the project be found consistent with Section 30250 of the Coastal Act.

L. INDEMNIFICATION

Coastal Act section 30620(c)(1) authorizes the Commission to require applicants to reimburse the Commission for expenses incurred in processing CDP applications. *See also* 14 C.C.R. § 13055(g). Thus, the Commission is authorized to require reimbursement for expenses incurred in defending its action on the pending CDP application. Therefore, consistent with Section 30620(c), the Commission imposes **Special Condition 18**, requiring reimbursement of any costs and attorney fees the Commission incurs "in connection with the defense of any action brought by a party other than the Applicant/Permittee challenging the approval or issuance of this permit."

M. UNPERMITTED DEVELOPMENT

Unpermitted development, as described in Appendix A, occurred on the site prior to submission of this permit application, and the Commission has taken action to address the applicant's liability for all unpermitted development subject to the 2015 Consent Orders, through its issuance of said orders.

The Commission issued the 2015 Consent Orders to address drilling and operation of new wells; removal of major vegetation, in part through the mowing of extensive portions of the site; grading; installation of pads and wells; construction of structures, roads and pipelines; placement of solid material; discharge or disposal of dredged material or liquid waste; removing, mining, or extraction of material; and change in intensity of use of the land that had occurred on the site.

Commission Ecologist Dr. Jonna Engel conducted a site-specific analysis to assess the likely status, prior to the unpermitted development that was the subject of the 2015 Consent Orders, of the biological resources in areas impacted by the unpermitted development that remain disturbed as a result of those activities. According to Dr. Engel's analysis, vegetative communities immediately adjacent to areas on the site impacted by the unpermitted development consist of various native plant communities and wildlife habitats that the Commission has consistently treated as ESHA. Dr. Engel determined that areas impacted by the unpermitted development

contained or were immediately adjacent to coastal scrub and/or grassland habitat prior to the development at issue, and those areas therefore met the definition of ESHA under the Coastal Act or were adjacent to areas that met that definition at the time they were affected by the alleged unpermitted development. The Commission concurred with Dr. Engel's general conclusion.

By entering into the 2015 Consent Orders, NBR LLC, although not admitting to any wrongdoing or liability under the Coastal Act, agreed 1) to remove certain allegedly unpermitted wells and either apply for after-the-fact authorization or remove other allegedly unpermitted wells, such that all allegedly unpermitted wells located outside of two areas of the site under West Newport Oil Company's (WNOC) control, i.e. the "Oil Remainder Areas", will be removed or addressed in an after-the- fact CDP application(s); 2) restore many acres affected by the disputed activities and restore additional acres as mitigation, with the combined restoration totaling 18.45 acres; 3) deed restrict 24.6-acres of the site for open space and restoration; and 4) not to engage in the large-scale mowing activities previously undertaken by the oilfield operator that spanned much of the upland areas of the Properties that have resulted in impacts to native habitats. The cessation of mowing activities has allowed for many more acres of the site to begin to recover from this activity. In many previously mowed areas, natural habitat, such as coastal sage scrub, is beginning to flourish after the cessation of mowing.

The 2015 Consent Orders were issued, in part, for the purpose of resolving NBR LLC's liability for alleged unpermitted development on the site to provide clarity for permitting actions, such as the present application, in part by providing for active restoration of certain impacted areas and passive restoration of the remainder of the impacted areas through the cessation of activities that disturbed these areas, thus allowing for an accurate analysis of the resources on site. Although the Consent Orders do help to lay the groundwork for review of this application, the obligations of the Consent Orders are independent of the Commission's action on the application; NBR is bound to perform the restoration and mitigation activities required by the Consent Orders regardless of the Commission's action.

Staff is currently reviewing the restoration plan, which proposes planting of native plant species in disturbed areas across the site, that NBR LLC has prepared pursuant to the Consent Orders. Although these areas have not yet been restored, through the Consent Orders, NBR LLC and the Commission have agreed to immediately treat the restoration areas as if the areas are restored with native habitat. In addition, NBR LLC agreed, by signing the Consent Orders, that it shall not use the restoration or mitigation projects described in the Consent Orders for the purpose of generating mitigation or restoration credits to satisfy any State or Coastal Commission requirement for restoration or mitigation.

Although development has taken place prior to submission of this permit application, consideration of this application by the Commission has been based solely upon the Chapter 3 policies of the Coastal Act. Review of this permit application does not constitute a waiver of any legal action with regard to the unpermitted development that has occurred on the site, although, as noted above, the Commission has already taken action to address the applicant's liability for the unpermitted development that was the subject of the 2015 Consent Orders, nor does it

constitute an admission as to the legality of any development undertaken on the site without a coastal permit.

N. LOCAL COASTAL PROGRAM

Section 30604(a) of the Coastal Act provides that the Commission shall issue a coastal development permit only if the project will not prejudice the ability of the local government having jurisdiction to prepare a Local Coastal Program which conforms with Chapter 3 policies of the Coastal Act:

(a) Prior to certification of the Local Coastal Program, a coastal development permit shall be issued if the issuing agency, or the commission on appeal, finds that the proposed development is in conformity with the provisions of Chapter 3 (commencing with Section 30200) of this division and that the permitted development will not prejudice the ability of the local government to prepare a Local Coastal Program that is in conformity with the provisions of Chapter 3 (commencing with Section 30200). A denial of a Coastal Development Permit on grounds it would prejudice the ability of the local government to prepare a Local Coastal Program that is in conformity with the provisions of Chapter 3 (commencing with Section 30200) shall be accompanied by a specific finding which sets forth the basis for such conclusion.

Coastal Act section 30604(a) states that, prior to certification of a local coastal program ("LCP"), a coastal development permit can only be issued upon a finding that the proposed development is in conformity with Chapter 3 of the Act and that the permitted development will not prejudice the ability of the local government to prepare an LCP that is in conformity with Chapter 3. The Coastal Land Use Plan (CLUP) for the City of Newport Beach was effectively certified on May 19, 1982. The certified CLUP was updated on October 2005 and in October 2009. The project site is listed as "deferred certification" in the LUP.

The majority of the site is under the jurisdiction of the County of Orange. Neither the County of Orange nor the City of Newport Beach has a certified Local Coastal Program that includes the project site. The City is in the process of creating an implementation plan for the Coastal Land Use Plan and certifying their LCP. Pursuant to Section 30604(a) of the Coastal Act, only as conditioned to be the least environmentally damaging alternative can the project be found consistent with Ch. 3 policies of the Coastal Act and therefore, will not prejudice the ability of the City of Newport Beach to certify the pending LCP.

O. GREENHOUSE GASES/CLIMATE CHANGE

The proposed project would result in greenhouse gas (GHG) emissions during construction and oilfield clean-up operations as well as during the occupancy and use of the residential and commercial development. Of these sources of GHG emissions, the residential and commercial uses far exceed all other sources combined (such as emissions from construction and clean-up operations).

The Commission has in past permit and LCP actions addressed the generation of GHG[6] emissions related to larger developments such as major water, energy, telecommunication, and transportation projects. These types of projects can significantly increase GHG emissions and therefore global warming, which in turn can cause significant adverse impacts to coastal resources of California. The Coastal Act has a number of provisions that provide direct authority to the Commission to assess increased risks caused by climate change (i.e. increased coastal flooding and potentially increased fire danger from climatic shifts causing drier weather patterns) when considering proposals for new development. The Coastal Act also provides a regulatory avenue to ensure that proposed development is compatible with non-emission's related planning controls that can have the effect of reducing GHG emissions (where emission's specific controls are governed solely by the federal Environmental Protection Agency and state air resources agencies), like reducing vehicle miles traveled and minimizing energy consumption (i.e. through public transit and pedestrian/bike travel options when evaluating proposed development or in the context of LCP proposals). These include the Coastal Act's public access and recreation policies (Sections 30220 and 30211), marine resource and water quality policies (Sections 30230 and 30231), the environmentally sensitive habitat area protection policy (Section 30240), and the coastal hazards policy (Section 30253(a) and (b)). Further, Section 30253(c) and (d) require new development to be consistent with requirements imposed by an air pollution control district or the California Air Resources Board (CARB) and to minimize energy consumption and vehicle miles traveled.

In evaluating the GHG emissions of project operations in the EIR, the City of Newport Beach found that without mitigation, the additional vehicle trips and traffic generated through the use of the proposed residential and commercial development would result in 18,542 metric tons per year of carbon dioxide equivalent emissions (also referred to as MTCO2e/yr - the standard measure of GHG emissions). This would account for nearly 72% of the project operation related emissions. In addition, another 6,824 MTCO2e/yr would result from the completed project's use of electricity, natural, gas, water, sewage, and other similar systems. Implementation of the mitigation measures proposed in the EIR would bring the total GHG emissions down to 18,949 MTCO2e/yr. As described in the EIR, this level of GHG emissions greatly exceeds both the significance thresholds used by the South Coast Air Quality Management District (3,000 MTCO2e/yr for residential and commercial projects) and the City of Newport Beach (6,000 MTCO2e/yr) and the EIR therefore found that "Despite application of all feasible mitigation, the Project would make a cumulatively considerable contribution to the global GHG inventory and would have a significant and unavoidable GHG emissions impact."

[6] Greenhouse gases are any gas, both natural and anthropogenic, that absorbs infrared radiation in the atmosphere and includes water vapor, carbon dioxide (CO2), methane (CH4), and nitrous oxide (N2O). These greenhouse gases lead to the trapping and buildup of heat in the atmosphere near the earth's surface, commonly known as the "Greenhouse Effect." Carbon dioxide is the major anthropogenic greenhouse gas. All greenhouse gases are quantified collectively by the carbon dioxide equivalent, or the amount of CO2 that would have the same global warming potential, when measured over a specific time period.

However, it is important to note that the project considered in the EIR is substantially larger than both the project currently proposed by NBR and the project recommended by Commission staff. Specifically, the EIR evaluated a project that included 1,375 residential units, 75,000 square feet of retail/commercial space, a 75 room resort, and 28 acres of active parks. NBR's current proposal is smaller and would include 895 residential units, 45,100 square feet of commercial use, a 75 room resort and a 20- bed hostel and 5 acres of active parks. Adjusting the GHG emissions analysis from the EIR to account for this reduction in project scale would result in an estimated reduction in mobile emissions (which account for over 70% of the total emissions) of approximately 40% - from 12,368 MTCO2e/yr to roughly 7,544 MTCO2e/yr. Although a reduction, this level of GHG emissions would still exceed the relevant significance thresholds and would be a significant adverse impact.

Implementation of the recommended Special Conditions included with this report would, however, result in additional reductions to the scale of the proposed project that would further reduce the GHG emissions associated with the occupation and use of the proposed development. If NBR constructed only the currently proposed configuration of 82 single family units and 411 multi-family or condo/townhome units within the areas outside of the site constraints identified on **Exhibit 4**, GHG emissions would be expected to be reduced still further. Using the same approach used above to adjust the analysis from the EIR to apply to this reduced scale project suggests that mobile emissions would be reduced from 12,368 MTCO2e/yr (under the project considered in the EIR) to roughly 2,226 MTCO2e/yr. While this estimate does not account for the additional GHG emissions associated with the completed project's use of electricity, natural gas, water, sewage, and other similar systems, those emissions would also be greatly reduced with a smaller scale project,and the total combined emissions from the project may fall below the South Coast Air Quality Management District and the City of Newport Beach thresholds for determining significant GHG emissions impacts.

As described above, the project, as conditioned, is therefore not expected to result in the generation of a significant amount of GHGs which would contribute substantially to global climate change and result in potential significant impacts to coastal resource effects. Thus, as conditioned, the project is consistent with the relevant Coastal Act policies.

P. CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

Section 13096 Title 14 of the California Code of Regulations requires Commission approval of a coastal development permit application to be supported by a finding showing the application, as conditioned by any conditions of approval, to be consistent with any applicable requirements of the California Environmental Quality Act (CEQA). Section 21080.5(d)(2)(A) of CEQA prohibits a proposed development from being approved under the Commission's CEQA-certified regulatory program if there are feasible alternatives or feasible mitigation measures available that would substantially lessen any significant adverse effect that the activity may have on the environment.

The proposed project is not the least environmentally damaging feasible alternative. Through the CEQA process, the Lead Agency issued a 'statement of overriding consideration' to enable the project to be approved consistent with CEQA. The EIR describes several alternatives for the

project, including Alternative B, Open Space and Park: *Alternative B would have fewer impacts than the proposed Project because it would involve less grading and site disturbance. This Alternative would have less demand on public services and utilities. However, this Alternative would not assist the City in meeting its RHNA housing requirements or implementing the General Plan Housing Element. Alternative B would able to avoid the significant and unavoidable impacts associated with traffic, air quality, greenhouse gases, and certain noise impacts, when compared to the proposed Project.* Ultimately Alternative B was not proposed due to assumed economic restrictions, however under CEQA it is a less environmentally damaging alternative.

Commission staff has identified an alternative project footprint, based on site constraints. There are countless projects that could be designed within that footprint, so Commission staff did not attempt to redesign the applicant's project. However, any project that adheres to those constraints, as the proposed conditions would require, and that abides by the other conditions, would qualify as the least environmentally damaging alternative because the project would respect the ESHA, wetlands, archaeological and cultural resources and other on-site resource constraints and conform to all other resource-protection conditions, so that it could be found consistent with Ch. 3 of the Coastal Act. As conditioned, there are no feasible alternatives or additional feasible mitigation measures available that would substantially lessen any significant adverse effect that the activity may have on the environment. Therefore, the Commission finds that the proposed project, as conditioned to mitigate the identified impacts, is the least environmentally damaging feasible alternative and can be found consistent with the requirements of the Coastal Act to conform to CEQA.

IV. SPECIAL CONDITIONS

This permit is granted subject to the following special conditions:

1. **Submittal of Revised Plans** - The only grading, residential construction, roads and other infrastructure approved pursuant to this coastal development permit are those associated with development of the proposed Urban Colony and North Family Village and proposed water quality improvements and the oilfield clean-up and restoration described below. The proposed Bluff Road, Resort Colony, Community Park and South Family Village are not approved herein. Grading, excavation, and other activities associated with oilfield clean-up and restoration operations carried out consistent with the Regional Water Quality Control Board approved Remedial Action Plan and Special Conditions 7 through 14 is permitted.

   PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, and only upon satisfaction of the requirements of **Special Condition 22** (Other Agency Approvals), the applicant shall submit, for review and approval of the Executive Director, two (2) sets of revised plans of each type listed below, with drawings to be supplied in size 11" x 17" or larger. The revised plans shall substantially conform to the preliminary plans on file in CDP application 5-15-2097 except as indicated in this condition, and they shall be reviewed and approved by the City of Newport Beach prior to submittal to the Executive Director:

   General Project Design Parameters - The purpose of the revisions to all plans for the project is to assure, with certain limited exceptions identified below, avoidance of prohibited uses of, or significant adverse impacts to, wetlands and environmentally sensitive habitat areas (ESHAs), archeological resources, and bluff and canyon edges. In general, all plans shall be revised to reflect the following (see also general exceptions below and individual exceptions listed within the lettered subsections of this condition) (all setbacks to be measured horizontally through the air and from the boundary of the target resource unless otherwise specified):

   - No development as defined in Section 30106 of the Coastal Act shall occur within:
     - the land identified as ESHA and buffers, Vernal Pools and Other Wetlands including 100-ft. wetland buffer, the Actual Areas to be Restored Pursuant to Settlement Agreement as depicted on the map titled "Constraints on Banning Ranch" in **Exhibit 4**
     - a minimum 100 foot setback from California gnatcatcher habitat ESHA as depicted on the map titled "ESHA, Wetlands and Buffers" in **Exhibit 3b**
     - a minimum 50 foot setback from sensitive vegetation ESHA as depicted on the map titled "ESHA, Wetlands and Buffers" in **Exhibit 3b**
     - a minimum 100 foot setback from wetlands, including vernal pools, as depicted on the map titled "ESHA, Wetlands and Buffers" in **Exhibit 3b**, except where the vernal pool watershed exceeds the 100 foot wetland buffers, then the setback is at the boundary of the watershed
     - a minimum 50 foot setback from archeological resources
     - a minimum of 164 foot setback from Burrowing Owl ESHA burrows, as depicted on the map titled "ESHA, Wetlands and Buffers" in **Exhibit 3b**

  - a minimum of 100 foot setback from Burrowing Owl foraging habitat ESHA, as depicted on the map titled "ESHA, Wetlands and Buffers" in **Exhibit 3b**
- a minimum 60 foot setback for structures from coastal bluff edges
- a minimum 15 foot setback for structures from the edges
- Habitable structures shall have a minimum 60 foot setback from the earthquake fault zone
- Where impacts to ESHA and Wetlands are authorized under the "General Exceptions" below, said resources shall be recreated and/or restored in their original location after the authorized development that disturbs those resources is complete.

General Exceptions to Project Design Parameters – Certain limited exceptions to the above identified General Project Design Parameters are as follows:

- Impacts to wetlands, including vernal pools, the vernal pool watersheds, ESHA, wetland and vernal pool buffers and ESHA buffers, archeological resource buffers, and bluff and canyon edges are authorized for all development necessary to remove verified clean-up targets included in the Santa Ana Regional Water Quality Control Board (RWQCB) approved Remedial Action Plan, pursuant to **Special Condition** 7 (Revised Oilfield Abandonment Plan).
- Trails for public access and recreation may be located within buffers identified on the map titled "ESHA, Wetlands and Buffers" in **Exhibit 3b** provided they are located in a fashion that minimizes impacts to the resources being buffered.
- Water quality control/improvement structures approved pursuant to **Special Condition 23** and **Special Condition 24** can be located within ESHA buffers and wetland buffers as depicted on the map titled "ESHA, Wetlands and Buffers" in **Exhibit 3b** and outside of the "buildable areas" as identified in **Exhibit 4** (Constraints on Banning Ranch).
- Habitat restoration within ESHA, wetlands, buffers, bluffs, canyons/arroyos may occur pursuant to the approved habitat management plan required by **Special Condition 14**
- A road that results in reduced buffer widths may be constructed in the vicinity of Wetlands C and CC only as specified in Section A ("Grading Plans") of this condition.
- Any development authorized through a separate coastal development permit within the Oil Remainder Areas depicted on **Exhibit 4** (Constraints on Banning Ranch).

In addition to conforming to the above-identified General Project Design Parameters and the General Exceptions to the Project Design Parameters, each of the plans identified below shall conform to the following, except in the isolated instances where the following would preclude implementation of the exceptions listed above:

A. GRADING PLANS

- The 30% grading plans submitted on December 2, 2015, shall be revised to allow development of the Urban Colony and North Family Village residential development only, including grading necessary for building pads, access roads, and water quality improvements, utilities and infrastructure, and erosion control features. The revised grading plans shall eliminate grading outside of the "buildable area" for the Urban Village and the North Family Village identified in **Exhibit 4** (Constraints on Banning Ranch) attached to the staff report. Minimal grading shall be allowed for the 10 foot wide

trails proposed surrounding the development within the ESHA buffers, not to exceed a width of 10 feet of grading within the buffer areas. Grading shall be allowed for the 20 foot wide trails proposed across the site within the ESHA buffers, not to exceed a width of 20 feet of grading within the buffer areas. No grading shall occur within ESHA, Wetlands or buffer zones for residential development and associated infrastructure, as depicted on the map titled "ESHA, Wetlands and Buffers" in **Exhibit 3b**, except as follows in the location of wetlands C and CC: If necessary to provide access to the approximately 3 acre developable area southwest of wetland CC a road may be located in the outer 50 feet of the northwestern portion of the 100-foot setback established around wetland CC and shown as a site constraint in **Exhibit 4** (Constraints on Banning Ranch), provided that mitigation measures to prevent poor water-quality or other impacts that would significantly degrade the wetlands are incorporated into the design of the entire portion of the road that is within the 100-foot setback, and provided that the remaining portion of the setback/buffer area around wetlands CC and C are, at a minimum, increased in area equivalent to the reduced buffer to allow the road (road width right-of-way not to exceed 50 feet as consistent with **Special Condition 3**) and made larger as necessary to merge the buffers for C and CC together to form a cohesive wetland complex.

Final grading plans shall identify the CCC coastal bluff edges and the CCC canyon bluff edges as indicated on **Exhibit 4** (Constraints on Banning Ranch) attached to the staff report.

B. SUBDIVISION/TRACT MAPS
   1. A revised subdivision/tract map shall be submitted that identifies all areas identified as "Open Space Conservation Area" in **Special Condition 10** as "open space lots" that shall be subject to the restrictions on uses identified in **Special Condition 10** (Open Space/Conservation Area).
   2. The revised subdivision/tract map may allow subdivision of the "buildable areas" depicted on **Exhibit 4** (Constraints on Banning Ranch) into smaller or larger lots than currently proposed, if desired for creation of additional single-family, multi-family and commercial developments, as approved by the City of Newport Beach.
   3. The revised subdivision/tract map shall be submitted for review and approval by the Executive Director to ensure conformity with the conditions of this permit prior to construction of any structures, but before recordation of the final subdivision/tract map.

C. SITE PLAN
   1. A revised site plan for the Urban Village/colony and the North Family Village shall be provided that limits the development footprint, including all structures and supporting infrastructure such as roads, utilities, drainage facilities and fuel modification zones to the "buildable areas" as identified in **Exhibit 4** (Constraints on Banning Ranch);
   2. The site plan shall delineate as "open space" the areas that are identified as the "Open Space Conservation Area" in **Special Condition 10**;

3. The revised site plan may include a road that results in reduced buffer widths only as specified in Section A ("Grading Plans") of this condition.
4. The revised site plan may include trails and access elements that are located within areas of ESHA or ESHA buffers only as specified in Section A ("Grading Plans") of this condition and identified on plans approved pursuant to **Special Condition 3** (Circulation System Plans) **and Special Condition 16** (Sign Plan).

D. PHASING PLAN

A revised final phasing plan shall require that the following steps be phased in the order below:

1. Undertake the Clean-Up Target Confirmation Sampling required pursuant to **Special Condition 8** and prepare the SITE-SPECIFIC RESTORATION AND MONITORING PROGRAM as described in **Special Conditions 14** (Habitat Management Plan).
2. Clean-up and material treatment, processing, stockpiling, borrow, and disposal activities described in the Santa Ana Regional Water Quality Control Board (RWQCB) approved Remedial Action Plan.
3. Accounting and verification of all impacts of oilfield clean-up activities to all ESHA and Wetlands and required in-place restoration and mitigation.
4. Grading, staging, and site preparation for residential development of the Urban Colony and North Family Village only and associated infrastructure and utilities.
5. Construction of public facilities, public access improvements and trails. Completion of the initial habitat restoration of open space.
6. Construction of residential units.
7. All public open space and trails must be operating and available to the public prior to the occupation of the first residential unit.

E. The permittee shall undertake development in conformance with the approved plans unless the Commission amends this permit or the Executive Director determines that no amendment is legally required for any proposed minor deviations.

2. Architectural and Construction Plans

A. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit, for review and approval of the Executive Director, two (2) sets of revised scaled architectural and construction plans, with drawings to be supplied in size 11" x 17" or larger. The final plans shall conform to the General Project Design Parameters and General Exceptions to Project Design Parameters as identified in **Special Condition 1** (Revised Plans), except in the isolated instances where the following would preclude implementation of the exceptions listed:

1. Complete architectural plans including elevations and floor plans shall be provided for all structures in substantial conformance with the plans submitted for CDP application 5-13-032 and revised plans submitted July 2016 on file in CDP application 5-15-2097.

2. Revised plans shall be submitted for the following, including but not limited to: each residential product type, parking garages, swimming pools and accessory structures, and fencing.
3. Foundation plans shall be submitted for each structure type limited to standard slab foundation systems. Caisson foundations are not approved by this permit.
4. All plans and elevations shall include heights of structures, in conformance with the following (heights measured from finished grade): single family residential structures shall not exceed 45 feet high with architectural features, and multi-family residential structures shall not exceed 65 feet high including architectural features. Revised plans shall depict the location, design, height and materials of all walls, fences, gates, and safety devices and boundaries. Walls, fences, gates, safety devices and boundary treatments controlling direct access into wetland and ESHA areas and their buffers are required unless that access or entry is upon a public trail. Where the backyards of residences or residential community spaces abut Wetland and ESHA buffers, there shall be walls, fences, gates, and safety devices and boundary treatments, as necessary, to minimize disturbance from development and contain domestic animals within the residential and commercial areas and exclude such animals from sensitive habitat. The above-required plans shall be accompanied by an analysis of the wall, fence, gate and boundary treatment plan prepared by a qualified biologist that documents that the proposed walls, fences, gates and safety barriers and boundary treatments will minimize development disturbance and the uncontrolled entry of domesticated animals into wetlands, ESHA, and their buffers.
5. All doors, windows, and patio and balcony railings shall be designed to minimize bird-strikes with the structure. Materials may consist, all or in part, of wood; wrought iron; frosted or partially-frosted glass, Plexiglas or other visually permeable barriers that are designed to prevent creation of a bird strike hazard. Clear glass, Plexiglas or other clear material shall not be installed unless embedded with materials or affixed with appliqués (e.g. stickers/decals) designed to reduce bird-strikes by reducing reflectivity and transparency. Any embedded materials or appliqués used shall be installed to provide coverage consistent with manufacturer specifications (e.g. one appliqué for every 3 foot by 3 foot area) and the recommendations of the Executive Director. Use of opaque or partially opaque materials is preferred to clear glass or Plexiglas with embedded materials or appliqués. All materials and appliqués shall be maintained throughout the life of the development to ensure continued effectiveness at addressing bird strikes and shall be maintained at a minimum in accordance with manufacturer specifications and as recommended by the Executive Director.
6. Parking spaces throughout the development shall be developed consistent with the following: a minimum of 2 garage spaces for each single family dwelling; a minimum of 2 covered spaces for each unit within each multi-family dwelling and 1 guest space for every two multi-family dwelling units; Public on-street parking spaces shall be provided throughout the development to support the use of the trail network. Parking spaces shall be calculated and the location shall be called out on the revised plans required in **Special Conditions 1, 3, and 15**.
7. Complete construction plans for water quality control/improvement structures approved pursuant to **Special Condition 23** and **Special Condition 24**

B. The permittee shall undertake development in conformance with the approved plans unless the Commission amends this permit or the Executive Director determines that no amendment is legally required for any proposed minor deviations.

3. Circulation System Plans

A. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit, for review and approval of the Executive Director, two (2) sets of revised plans for the roadways, trails, and site circulation system, with scaled drawings to be supplied in size 11" x 17" or larger. The final plans shall conform to the General Project Design Parameters and General Exceptions to Project Design Parameters as identified in **Special Condition 1** (Revised Plans) except in the isolated instances where the following would preclude implementation of the exceptions listed. Plans for the roadways, trails, and site circulation system shall be revised in the following ways:

1. Eliminate from the plans the proposed "Bluff Road" network extending from West Coast Highway up to 17th street and across the Southerly/Main Arroyo and the North-South Arroyo head.
2. Access to the site shall be provided from 17th street only.
3. Emergency vehicle access may be provided between the Residential development and the Oil Remainder Areas using the existing road and existing access off of PCH and using approved Multi-use trails.
4. The Right-of-way for all roads is limited to 50 feet wide and the identified "buildable area" shown in **Exhibit 4** (Constraints on Banning Ranch).
5. Bike lanes and sidewalks shall be limited to the minimum width necessary, 5 feet for bike lanes and 4 feet for sidewalks.
6. Trails shall be designed to serve as alternatives to sidewalks and bike lanes where they cannot be provided on-street due to site constraints. Trails shall also serve as options for non-automobile circulation throughout and around the site to reduce vehicle miles traveled. All trails shall incorporate way-finding, directional signage, as well as permitted use signage, more specifically described in **Special Condition 16** (Sign Plan). Trails shall be reflected on the plans as one of the two types of trails described below:
   a. Pedestrian trails: limited to maximum 10 feet wide, may cross through areas of ESHA buffers. Pedestrian trails are for pedestrian use and wheelchair use only and shall be constructed with native soils, or decomposed granite or similar material using existing roads or paths where feasible.
   b. Multi-use trails: limited to maximum 20 feet wide, and may cross through areas of ESHA buffers only as shown on **Exhibit 3b** (ESHA, Wetlands and Buffers) attached to the staff report. The purpose of the multi-use trails is to allow for alternative transportation through the site and around the site. Multi-use trails shall be constructed with permeable paving, such as interlocking pavers, bricks, decomposed granite, permeable asphalt, or a similar material. Multi-use trails shall also be designed to serve as secondary access points for Fire and other Emergency services to access residential and commercial development areas.

Final plans for the multi-use trails shall call out the use of these trails as Fire Access Roads.

c. A final trail system plan shall be submitted showing all access points and connections to regional trails designed in the least environmentally damaging alignments, but with maximized interconnectedness and circulation across the site.

B. The permittee shall undertake development in conformance with the approved plans unless the Commission amends this permit or the Executive Director determines that no amendment is legally required for any proposed minor deviations.

4. Landscape Plans for Lands Not Included in the Approved Habitat Management Plan

A. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit, for review and approval of the Executive Director, two (2) sets of revised landscaping plans, with scaled drawings to be supplied in size 11" x 17" or larger. The final plans shall conform to the General Project Design Parameters and General Exceptions to Project Design Parameters as identified in **Special Condition 1** (Revised Plans) except in the isolated instances where the following would preclude implementation of the exceptions listed. Revised landscaping plans required by this condition shall be prepared by an appropriately licensed professional, shall cover all areas not included in the approved Habitat Management Plan, and shall meet the following requirements:

1. The plans shall demonstrate that all planting shall provide 90 percent coverage within 90 days and shall be repeated if necessary to provide such coverage;
2. All plantings shall be maintained in good growing condition throughout the life of the project, and whenever necessary, shall be replaced with new plant materials to ensure continued compliance with the landscape plans;
3. All landscaping shall be drought tolerant, including lawn/grass species. No permanent in-ground swimming pools are permitted on individual residential lots.
4. No permanent irrigation system shall be allowed within 25 feet of coastal bluffs or canyon bluffs/slopes. Temporary above ground irrigation to allow the establishment of the plantings is allowed. If using potable water for irrigation, the project shall use water-conserving emitters (e.g. microspray) and drip irrigation, and the use of weather-based irrigation controllers for irrigation is required. Use of reclaimed water for irrigation is required when available. The landscaping plan shall show all the existing vegetation and any existing irrigation system along with notations regarding all changes necessary thereto to comply with the requirements of this special condition.
5. The plan shall include a map showing the type, size, and location of all plant materials that will be on the developed site, the irrigation system, topography of the developed site, and all other landscape features, and a schedule for installation of plants.
6. All areas disturbed by the development and all areas in existing disturbed conditions shall be re-vegetated and maintained. All lands within the dedicated open space and

conservation areas shall be vegetated in accordance with the final Habitat Management Plan approved by the Executive Director pursuant to **Special Condition 14**.

7. Except for approved landscaping on the private residential lots for approved turf species, all landscaping (including temporary erosion control and final landscaping) for the entire development covered by this permit shall be of plants native to coastal Orange County and appropriate to the natural habitat type.
8. Native plants used for landscaping shall be obtained, to the maximum extent practicable, from seed and vegetative sources on the project site or other local sources.
9. No plant species listed as problematic and/or invasive by the California Native Plant Society, California Exotic Pest Plant Council, or as may be identified from time to time by the State of California shall be utilized anywhere within the proposed development area, including the landscaping within the private residential lots and the park areas. No plant species listed as a 'noxious weed' by the State of California or the U.S. Federal Government shall be utilized anywhere within the proposed development area, including the private residential lots and the park areas.
10. Use of native plant species appropriate to coastal Orange County is encouraged within the private residential lots and within approved turf areas in parks.
11. Landscape treatment for visual purposes shall include adequate plantings to break up large expanses of wall or roof of all residentially developed portions of the site that would be visible from public areas, open spaces and trails. Landscaping for these visual treatment purposes shall be installed following completion of grading for the development and prior to or concurrent with commencement of construction of the residential structures authorized under this permit.
12. Final landscaping for all areas outside the habitat management plan area shall be completed prior to the occupation of the adjoining residential structures approved by this permit. The timing of re-vegetation efforts within the habitat restoration areas identified in the revised Habitat Management Plan shall be as indicated in the revised Habitat Management Plan approved by the Executive Director.
13. In addition to the Final Landscaping Plans, the permittee shall submit landscape palette lists subject to the review and approval of the Executive Director, that identify: 1) the native plant species that may be planted in the residential development areas; 2) a representative list of the non-native, non-invasive common garden plant species that may be planted in the residential lots; and 3) the non-native, non-invasive, drought-tolerant turf species. The landscape palette for the development shall be consistent with the lists of approved plants as reviewed and approved by the Executive Director.
14. The palette lists shall remain available for public consultation at the City of Newport Beach, any owners association(s) established for the development, and from the management organization for the conservation easement areas. Additions to or deletions from these lists may be made by the Executive Director of the California Coastal Commission, in consultation with the project's restoration ecologist or biologist and the resource agencies. No deviations from the list shall occur in the plantings on the site without an amendment to this permit or a new coastal

development permit unless the Executive Director determines that no amendment or new permit is legally required.

15. Concurrent with the submittal of all Landscaping plans and palettes, the permittee shall provide an analysis of each plan submitted, prepared by a qualified biologist, which documents that the landscaping complies with all of the landscaping and habitat management requirements of this permit.
16. The Final Landscaping Plans shall include Monitoring plans. Five years from the date of the completion of the installation of landscaping as required in these special conditions, the permittee shall submit for the review and approval of the Executive Director, a landscape monitoring report, prepared by a licensed Landscape Architect or qualified Resource Specialist, that certifies the on-site landscaping is in conformance with the requirements of the special conditions of this permit and the landscape plans approved pursuant to the special conditions of this permit. The monitoring report shall include photographic documentation of plant species and plant coverage. If the landscape monitoring report indicates the landscaping is not in conformance with or has failed to meet the performance standards specified in the landscaping plan approved pursuant to this permit, the permittee, or successors in interest, shall submit a revised or supplemental landscape plan for the review and approval of the Executive Director. The revised landscaping plan must be prepared by a licensed Landscape Architect or a qualified Resource Specialist and shall specify measures to remediate those portions of the original plan that have failed or are not in conformance with the original approved plan. The permittee or successor in interest shall implement the supplemental landscaping plan approved by the Executive Director and/or seek an amendment to this permit if required by the Executive Director.

B. The permittee shall undertake development in conformance with the approved plans unless the Commission amends this permit or the Executive Director determines that no amendment is legally required for any proposed minor deviations.

5. Lighting Plan

A. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit, for review and approval of the Executive Director, two (2) sets of a lighting plan, with scaled drawings to be supplied in size 11" x 17" or larger. The final plans shall conform to the General Project Design Parameters and General Exceptions to Project Design Parameters as identified in **Special Condition 1** (Revised Plans) except in the isolated instances where the following would preclude implementation of the exceptions listed. The final plan shall conform to the following:

1. A final lighting plan shall be prepared and shall be designed to protect the wetlands and ESHA from light generated by the project as described in part 2 below. The lighting plan to be submitted to the Executive Director shall be accompanied by an analysis of the lighting plan prepared by a qualified environmental lighting design expert, which documents that the lighting plan is effective at preventing lighting impacts upon adjacent wetlands and ESHA.

2. All lighting within the proposed development shall be directed and shielded so that light is directed downward and away from wetlands and ESHA identified on the map titled "ESHA, Wetlands and Buffers" in **Exhibit 3b.** All lighting shall utilize the best available "dark sky" technologies including lights with the lowest intensity possible and that utilize wavelengths that are the most environmentally protective of organisms active at night and dawn and dusk. Furthermore, no skyward-casting lighting shall be used. The lowest intensity lighting shall be used that is appropriate for safety purposes.

B. The permittee shall undertake development in conformance with the approved plans unless the Commission amends this permit or the Executive Director determines that no amendment is legally required for any proposed minor deviations.

6. Fire Hazard Mitigation and Fuel Management Requirements

A. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit, for review and approval of the Executive Director, two (2) sets of revised Fire Hazard Mitigation and Fuel Management Requirements Plan, with scaled plans to be supplied in size 11" x 17" or larger. The revised plans shall conform to the General Project Design Parameters and General Exceptions to Project Design Parameters as identified in **Special Condition 1** (Revised Plans) except in the isolated instances where the following would preclude implementation of the exceptions listed. The final fire hazard mitigation and fuel management plan for the residential development shall be consistent with the requirements outlined below:

1. All fuel management shall be consistent with the final habitat management plan approved by the Executive Director pursuant to **Special Condition 14**. The final fire hazard mitigation and fuel management plan shall provide fuel management zones within the "buildable areas" identified in **Exhibit 4** (Constraints on Banning Ranch)**,** which zones shall include a minimum of 60 feet of defensible space with the buildable areas. No fuel management zones shall be within areas identified as ESHA, Wetlands, or Watershed as depicted on the map titled "ESHA, Wetlands and Buffers" in **Exhibit 3b**.
2. Proposed residential structures shall be set back a minimum of 60 feet in horizontal distance through the air from ESHA and Wetlands, including areas serving as buffers pursuant to **Special Condition 1** and as depicted on the map titled "ESHA, Wetlands and Buffers" in **Exhibit 3b**, such that there is no vegetation thinning or clearance required by the relevant fire authority (e.g. City of Newport Beach Fire Department or Orange County Fire Authority) within protected resource areas or their buffers as identified in **Exhibit 3b** (ESHA, Wetlands and Buffers). The final fire hazard mitigation and fuel management plan shall have received final approval from the relevant fire authority and the submittal shall include written evidence of said approval. The fire hazard mitigation and fuel management plan shall include a statement which states that any changes to the plan, including any changes required by the relevant fire authority or other resource agencies, shall be reported to the Executive Director of the Coastal Commission, and shall require an amendment to this permit or a new coastal development permit prior to implementation of changes

unless the Executive Director of the Coastal Commission determines that no amendment or new permit is legally required.

B. The permittee shall undertake development in conformance with the approved plans unless the Commission amends this permit or the Executive Director determines that no amendment is legally required for any proposed minor deviations.

7. Revised Oilfield Abandonment Plan

PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall provide, for Executive Director review and approval, a Revised Oilfield Abandonment Plan (Abandonment Plan) that is consistent with the Remedial Action Plan approved by the Santa Ana Regional Water Quality Control Board ("RAP") and designed around the results of the comprehensive ground-truthing and refinement "field verification process" described in NBR's October 27, 2014 *Newport Banning Ranch Oil Field Abandonment Plan*, including that ground-truthing carried out in November of 2015 and March of 2016. The Abandonment Plan shall include:

A. REMEDIATION ACTION AREAS SITE PLAN.

A revised remediation action areas site plan shall be provided that confines all materials treatment (bioremediation, concrete crushing, etc.), processing, stockpiling, borrow, and disposal sites described in the RAP to:

1. the "buildable areas" as identified in **Exhibit 4** (Constraints on Banning Ranch); and

2. areas not identified as ESHA, wetlands, ESHA buffer, or wetlands buffer in **Exhibit 3b**.

For the purposes of this special condition, these two types of areas shall be referred to as the "available area." The applicant shall limit onsite materials treatment, processing, borrow, stockpiling, and disposal activities to those locations shown in this revised remediation action areas site plan as being part of the "available area."

If the "available area" does not provide sufficient land area for the applicant to perform the material stockpiling, treatment, processing, borrow, and disposal activities as it has currently proposed, alternative material treatment and disposal options shall be implemented to fit as much of these activities as possible onsite. Such alternative treatments would include the following:

a. As provided for the in the Remedial Action Plan approved by the Santa Ana Regional Water Quality Control Board, placement of clean, treated material within clean-up excavations in the lowland portion of the site (including any such excavations in ESHA, wetlands, ESHA buffer, or wetlands buffer in the lowland portion of the site) rather than disposal pits in the upland area;
b. Phasing clean-up and material treatment activities to reduce treatment volumes and areas needing to be processed at one time;

c. Offsite rather than onsite disposal of concrete waste that cannot be recycled and reused onsite;
d. Use of more selective extraction and removal techniques for waste materials such as dispersed asphalt like material, gravel and concrete (such as targeted removal rather than grading) that reduces the volume of non-target material collected;
e. Use of direct loading of excavated materials onto trucks in place of stockpiling wherever feasible.
f. Reuse of removed asphalt, asphalt-like material, gravel, and concrete as roadbed, foundation, and construction materials whenever possible.
g. Off site disposal of soil and material volumes unable to be reused onsite or treated and disposed within the "available area" and lowland clean-up excavations.

B. ADVERSE IMPACT AVOIDANCE/MINIMIZATION MEASURES

The Abandonment Plan shall include measures to avoid or minimize environmental impacts during oilfield clean-up, material treatment, processing, stockpiling, borrow, and disposal. Such measures shall include but not be limited to the following:

1. Measures shall be implemented limiting access to and from the clean-up sites and the soil borrow, material stockpiling, processing, treatment and disposal operations areas so that such access only uses existing oilfield access roads and does so without removal of vegetation or grading to expand these roads or develop additional access roads;
2. To the maximum extent feasible, project activities related to oilfield clean-up or soil borrow, material stockpiling, processing, treatment and disposal operations that are outside of the "buildable areas" indicated in **Exhibit 4** (Constraints on Banning Ranch), including infrastructure removal, temporary soil and material storage, equipment staging, site access, and the placement and operation of machinery and equipment, shall occur on existing roads and oilfield operations areas and outside of areas of existing native vegetation.
3. The duration of time each site is disturbed and the total area of disturbance shall be minimized to the extent feasible.
4. The applicant shall maintain a current database of state or federally listed rare, threatened or endangered species and other sensitive species present in the oil field and seasonal or year round access restrictions or closures required for the protection of such sensitive species. The applicant shall keep closure information posted in the field office and contractor trailers and notify all personnel of closed areas and penalties that NBR will exact from its contractors and employees for non-compliance.
5. The applicant shall clearly mark any locations of sensitive species adjacent to work areas in the oil field to exclude vehicles or pedestrians (e.g., with traffic cones, caution/DO NOT ENTER tape, and orange construction fencing) unless vehicle or pedestrian access is necessary to carry out oilfield clean-up activities.
6. To the extent feasible, the applicant shall confine all vehicular use to designated construction areas and existing access corridors. Proposed new access corridors and routes shall be surveyed by qualified biologists and routed to avoid impacts to sensitive plant and wildlife species and minimize impacts on native vegetation and soils. The corridors shall be clearly designated in the field using durable and

conspicuous markers that can be removed before they degrade or that will degrade completely into environmentally harmless materials. Locations shall also be marked on maps. The applicant and its contractors shall not commence any off-road vehicular travel at any project site until receiving written sign-off on said designations for that site from the Executive Director. All personnel operating vehicles capable of off-pavement travel shall be informed of the restrictions on off-pavement travel and made responsible for adhering to them.

7. Prior to ground disturbance at each excavation site, an exclusion plan shall be prepared by the applicant and approved by the Executive Director. The plan shall identify and map all exclusion zones that shall not be disturbed or disrupted by any element of the proposed projects. Exclusion zones shall include sensitive habitats such as wetlands, riparian vegetation, important terrestrial habitat and other biological resources. The applicant shall not commence any ground-disturbing activity at any site until receiving written sign-off on said plan for that site from the Executive Director.
8. The applicant shall restrict construction activities and equipment to existing roads, pads or otherwise disturbed areas as much as possible.
9. Where access to sites, pipeline, well, or infrastructure removal locations must be through native habitats, a qualified biologist shall determine the most suitable and least environmentally damaging access route to the site. This access route shall be clearly marked and will be considered part of the construction zone. The applicant shall not enter any native habitats until receiving written sign-off on said access route for that habitat from the Executive Director.
10. Limits of the construction zone shall be clearly marked and delineated by the applicant in the field prior to initiation of each excavation project. No unauthorized personnel or equipment shall be allowed in native habitats outside the construction limits.
11. The applicant shall clearly mark biologically sensitive areas on grading plans and on site (prior to commencement of activity), and ensure that they are avoided by personnel and equipment.
12. At oil contaminated soil clean-up sites, any necessary infrastructure removal activities in the same location shall be completed prior to or concurrent with soil clean-up, avoiding any re-disturbance following the completion of contaminated soil removal. Following contaminated soil and infrastructure removal activities, original topography shall be restored to the extent possible, and stabilized if necessary by physical means such as jute netting.
13. For sites where ongoing access is required (such as for monitoring or maintenance), a qualified biologist shall determine the most suitable access route. Access routes shall be clearly marked and off-road travel shall be confined to designated routes. Periodic surveys of the access routes, at a frequency determined by the applicant in consultation with the appropriate resource agencies, shall be conducted by a qualified biologist to determine the presence of sensitive species and need for remedial action for environmental impacts, including weed establishment on the disturbed corridor. If the qualified biologist determines that a more suitable route is present, then the new route shall be clearly marked and the old route shall be restored to preexisting

conditions and clearly marked to preclude entry. Once the access routes are no longer required, they shall be included in a site specific Habitat Restoration, Revegetation and Monitoring Plan described in **Special Condition 14 (Habitat Management Plan)**.

14. Oilfield clean-up activities in and immediately around ESHA and wetland areas shall be limited to daylight hours and night lighting shall not be used. Lighting used in other areas for clean-up or material treatment, processing, borrow, and disposal activities shall be shielded and directed away from the nearest ESHA and wetland areas shown in **Exhibit 3a**, to the extent feasible.
15. Traffic shall be confined to existing roads and defined work areas. No equipment, vehicles, or personnel shall enter any designated exclusion area or area designated as sensitive species habitat except as part of approved clean-up activities.

8. Clean-Up Target Confirmation Sampling in Sensitive Resource Areas

PRIOR TO IMPLEMENTATION OF RAP-APPROVED OILFIELD CLEAN-UP ACTIVITIES in and immediately around areas designated as ESHA or wetlands on **Exhibit 3a** or within 200 feet of areas of prehistoric cultural importance, minimally invasive confirmation sampling (for example, visual surveys, hand augured or dug sample pits) shall be carried out by an independent third party to verify the presence of and delineate the location and extent of removal targets described in the RAP (such as oil contaminated material or oilfield infrastructure). The results of the clean-up target confirmation sampling shall be used to develop a refined site-specific plan for clean-up at and immediately around each sampling site, including an explanation of the need for clean-up activities and their extent and scope. The clean-up target confirmation sampling results and the resulting site-specific clean-up plan shall be submitted to the Santa Ana Regional Water Quality Control Board and Executive Director for review and approval. Relevant results from the field verification process carried out in November of 2015 and March of 2016 may be used as clean-up target confirmation sampling results or to supplement additional sampling and may also be used for the development of site-specific clean-up plans. Consolidated plans may be submitted for approval that include multiple sites. Initiation of RAP-approved oilfield clean-up activities in and immediately around areas designated as ESHA or wetlands on **Exhibit 3a** or within 200 feet of areas of prehistoric cultural importance shall not occur until written approval of the relevant site-specific clean-up plans for such areas are granted by the Executive Director.

9. Quantification of Oilfield Clean-Up Impacts

A. WITHIN 30 DAYS FOLLOWING completion of oilfield clean-up activities in and immediately around each area designated as ESHA or wetlands shown on **Exhibit 3a**, a clean-up impacts assessment and quantification survey shall be carried out by a qualified third-party approved by the Executive Director. Each specific area shall be surveyed and the results of the survey shall be submitted for Executive Director review and written approval. The survey shall be designed to document and quantify all impacts to wetlands and ESHA habitats from clean-up activities, including by:

1. Documenting the existing condition (after completion of oilfield clean-up activities) of the wetlands, vegetation and substrate at the clean-up site and surrounding affected areas.
2. Quantifying and including in the survey results the severity, scope, and extent of impacts to the vegetation and substrate in these areas.
3. Recording the type and quantity of clean-up targets removed and the methods used during their removal.

B. As more specifically described in **Special Conditions 1** (Revised Plans) and **14** (Habitat Management Plan), all impacts to environmentally sensitive habitat and wetlands shall be remedied by restoring the resources in place at a 1:1 ratio and mitigation for those impacts shall be provided at the appropriate ratio for that habitat type established in Special Condition 14. Native plants, similar to those impacted and grown from seed collected onsite or as near to the site as feasible if on-site collection isn't completely feasible, shall be used to re-establish the area consistent with current conditions or enhance it.

C. The Habitat Management Plan ("HMP") discussed in **Special Condition 14** shall be revised and mitigation areas shall be calculated based on the final impact areas documented by the clean-up impacts assessment and quantification surveys. If the impacts of the clean-up impacts assessment and quantification surveys are documented to be greater than anticipated in the proposed HMP, the HMP will be revised and additional mitigation will be required for the greater impacts.

D. If necessary, a revised HMP must be submitted within 90 days following the completion of final oil infrastructure removal, abandonment and remediation and clean-up activities, for Executive Director review and written approval.

10. Open Space/Conservation Area

A. The phrase "Open Space/Conservation Area" (or "OSCA") shall refer to the areas generally depicted on **Exhibit 9** (T.T.M. Lots dated August 12, 2016) as "Lettered Lots" A through E, G through P, and R, excluding the trails described in **Special Condition 11** (Trails Within Open Space/Conservation Area), which area will be more precisely identified in formal legal descriptions and graphic depictions prepared by the applicant and submitted for the Executive Director's review and approval prior to issuance of this permit.

B. Use of the Open Space/Conservation Area shall be restricted to open space and habitat conservation purposes as more specifically described in the subsections of this Section B, below. The lands shall be managed as described in those subsections, and no development inconsistent with the purposes of this restriction shall be allowed.
   1. The area shall be used for habitat conservation and restoration purposes.
   2. The landowner(s) shall, or, at the election of the party accepting the offer required by subdivision C.2, that party shall: (a) restore the OSCA in accordance with the final Habitat Management Plan approved by the Executive Director in accordance with **Special Condition 14** and maintain the OSCA in accordance with the Management and Maintenance Program for the open space areas approved by the Executive

Director in accordance with **Special Condition 12** and (b) accept responsibility for maintenance of and liability associated with the OSCA.

3. No development, as defined in Section 30106 of the Coastal Act, that the Executive Director determines diminishes the habitat value of the area shall occur within the OSCA. All such development is prohibited.
4. No development, as defined in Section 30106 of the Coastal Act, shall occur within the OSCA except for the following:
   a. minimal construction necessary to construct habitat fencing, temporary restoration projects, and signage in accordance with the final plans approved by the Executive Director pursuant to **Special Conditions 3** (Circulations System Plans), **15** (Public Access and Parking) and **16** (Sign Plans);
   b. invasive vegetation removal and restoration planting in accordance with the final habitat management plan approved by the Executive Director pursuant to **Special Condition 14**;
   c. construction of drainage and water quality management devices in accordance with the final plans approved by the Executive Director pursuant to **Special Condition 23** (Interim Erosion Control Plan) **and 24** (Water Quality Management Plan);
   d. removal of oil and gas infrastructure and verified clean-up targets and materials treatment (bioremediation, concrete crushing, etc.), stockpiling, borrow, and replacement of excavated areas with clean soil as identified in the final Abandonment Plan approved pursuant to **Special Condition 7** (Revised Oilfield Abandonment Plan) and the Remedial Action Plan approved by the Santa Ana Regional Water Quality Control Board (RWQCB) pursuant to **Special Condition 7;**
   e. archeological testing of, and preservation and protection measures taken with respect to, cultural deposits as identified in the Archeological Research Plan approved by the Executive Director, and as required pursuant to **Special Condition 17** (Protection of Cultural Resources), though if the process outlined therein requires a subsequent coastal development permit for the work, then only once that permit has been issued;
   f. if approved by the Coastal Commission as an amendment to this coastal development permit or as a new coastal development permit, habitat restoration, public trails and associated appurtenances such as interpretive signs, benches, and trash cans, and erosion control and repair that were not authorized by this coastal development permit.

C. Prior to Issuance of this Permit, the landowners shall execute and record a document, in a form and content acceptable to the Executive Director, that will:
   1. restate/re-impose the aforementioned restrictions on the use of the OSCA;
   2. create an irrevocable offer to dedicate one of the items listed in the next paragraph to a public agency or non-profit entity, or some combination thereof, approved by the Executive Director and shown to have: (a) no conflict-of-interest with the provision of open space conservation, (b) a plan for substantive consultation with Native American tribal governments with ties to the land in developing and implementing

plans for habitat restoration and preservation and environmental and cultural education, (c) demonstrated experience in land conservation and habitat restoration, (d) the support of the public, environmental and restoration organizations, and (e) a mission that reflects the maximum public interest;

3. The irrevocable offer required by the prior paragraph shall be for either: (a) fee title to, or (b) an open space and conservation easement over, the OSCA, to further ensure compliance with the restrictions listed in section B and more generally protect and promote habitat and open space in the OSCA;
4. include a legal description(s) and corresponding graphic depiction(s) of the legal parcels subject to this permit and a metes and bounds legal description and graphic depiction of the OSCA prepared by a licensed surveyor based on an on-site inspection;
5. reflect that development in the OSCA is restricted as set forth in this permit condition;
6. be recorded free of all prior liens other than tax liens and also free of encumbrances that the Executive Director determines may affect the interest being conveyed. Subject to the review and approval of the Executive Director, existing easements for subsurface drainage devices and subsurface or overhead utilities within the OSCA may remain recorded against the property in higher priority position than the offer provided that such utility/drainage easements and associated facilities are not having an ongoing existing adverse impact on the habitat value of the OSCA and will not have a future adverse impact on the habitat value of the OSCA. Any existing encumbrances allowing activities that the Executive Director determines may be having an existing adverse impact, or may have a future adverse impact, on the habitat value of the OSCA shall be extinguished or subordinated and the associated facilities removed by the applicant;
7. run with the land in favor of the People of the State of California, binding all successors and assignees, with the offer portion of the document, described in subdivision C.2, being irrevocable for a period of 21 years, such period running from the date of recording;
8. indicate that the restrictions on the use of the land shall remain as covenants, conditions and restrictions running with the land in perpetuity, notwithstanding any revocation of the offer.

11. Trails Within the Open Space/Conservation Area

A. The phrase "OSCA Trails" shall refer to the areas where trails are to be constructed within what would, if not excluded by the definition of OSCA at the beginning of the prior condition, be part of the Open Space/Conservation Areas, generally surrounded by the OSCA. Trails constructed as OSCA Trails shall be consistent with **Special Condition 3** (Circulation System Plans). The OSCA Trails are generally depicted on **Exhibit 2, page 1** (Site Plan) but will be revised on plans approved by the Executive Director pursuant to **Special Condition 3** and those trails will be more precisely identified in formal legal descriptions and graphic depictions prepared by the applicant and submitted for the Executive Director's review and approval prior to issuance of this permit.

B. Use of the OSCA Trails shall be restricted to public pedestrian and bicycle access, low speed electric vehicle access, intermittent and temporary emergency vehicle use, passive recreational use, and development in support of the creation and maintenance of opportunities for such use, as more specifically described in the subsections of this Section B, below. The lands shall be improved and managed as described in those subsections, and no development inconsistent with the purposes of this restriction shall be allowed.
   1. The area shall be used for the installation of public access-related amenities and the provision of public access consistent with the final circulation system plan and final signage plan approved pursuant to **Special Conditions 3** (Circulations System Plans), **15** (Public Access and Parking) **and 16** (Sign Plans).
   2. The landowner(s) shall (a) construct and maintain the public access-related amenities described in final circulation system plans and final signage plan approved pursuant to **Special Conditions 3** (Circulations System Plans), **15** (Public Access and Parking) **and 16** (Sign Plans) within the OSCA Trails, in accordance with that plan; and (b) accept responsibility for maintenance of, and liability associated with, those amenities, until the offer required by subdivision C.2 of this condition is accepted, at which point any continuing obligations pursuant to this subsection B.2. shall transfer to that party.
   3. No development, as defined in Section 30106 of the Coastal Act, that the Executive Director determines would diminish the habitat value of the surrounding OSCA or diminish the public access and recreational value of the OSCA Trails shall occur within the OSCA Trails. All such development is prohibited.
   4. No development, as defined in Section 30106 of the Coastal Act, shall occur within the OSCA Trails except for the following:
      a. grading and construction of public trails and associated appurtenances such as interpretive signs, benches, and trash cans consistent with the final circulation plan and signage plan approved by the Executive Director pursuant to **Special Conditions 3** (Circulations System Plans), **15** (Public Access and Parking) **and 16** (Sign Plans);
      b. maintenance and management of the trails and appurtenances consistent with the final Management and Maintenance Programs for Public Access, Recreational Use, and Open Space Areas approved by the Executive Director pursuant to **Special Condition 12**;
      c. construction of drainage and water quality management devices in accordance with the final plans approved by the Executive Director pursuant to **Special Condition 23** (Interim Erosion Control Plan) **and 24** (Water Quality Management Plan);
      d. removal of oil and gas infrastructure and verified clean-up targets and materials treatment (bioremediation, concrete crushing, etc.), stockpiling, borrow, and replacement of excavated areas with clean soil as identified in the approved final Abandonment Plan approved pursuant to **Special Condition** 7 (Revised Oilfield Abandonment Plan) and the Remedial Action Plan approved by the Santa Ana Regional Water Quality Control Board (RWQCB) pursuant to **Special Condition 7;**

e. archeological testing of, and preservation and protection measures taken with respect to, cultural deposits as identified in the Archeological Research Plan approved by the Executive Director, and as required pursuant to **Special Condition 17**, though if the process outlined therein requires a subsequent coastal development permit for the work, then only once that permit has been issued;
f. if approved by the Coastal Commission as an amendment to this coastal development permit or as a new coastal development permit, landscaping, habitat restoration, public trails and associated appurtenances such as interpretive signs, benches, and trash cans, and erosion control and repair that were not authorized by this coastal development permit.

5. Public access shall be made available along the OSCA Trails as soon as oilfield clean-up located within the OSCA is completed, the initial phase of habitat restoration is completed, and the trails are created, but shall be limited to that which is consistent with the final Habitat Management Plan approved by the Executive Director pursuant to **Special Condition 14.**

C. Prior to Issuance of this Permit, the landowners shall execute and record a document, in a form and content acceptable to the Executive Director, that will:
1. restate/re-impose the aforementioned restrictions on the use of the OSCA Trails;
2. create an irrevocable offer to dedicate one of the items listed in the next paragraph to a public agency or non-profit entity, or some combination thereof, approved by the Executive Director and shown to have: (a) no conflict-of-interest with the provision of public access and passive recreation, (b) a plan for substantive consultation with Native American tribal governments with ties to the land in developing and implementing plans for habitat restoration and preservation and environmental and cultural education, (c) demonstrated experience in land conservation and habitat restoration, (d) the support of the public, environmental and restoration organizations, and (e) a mission that reflects the maximum public interest;
3. The irrevocable offer required by the prior paragraph shall be for either: (a) fee title to, or (b) an open space and conservation easement over, the OSCA Trails, to further ensure the management of the area consistent with section B and more generally protect and promote public access and passive recreation along the OSCA Trails;
4. include a legal description(s) and corresponding graphic depiction(s) of the legal parcels subject to this permit and a metes and bounds legal description and graphic depiction of the OSCA Trails, prepared by a licensed surveyor based on an on-site inspection;
5. reflect that development in the OSCA Trails is restricted as set forth in this permit condition;
6. be recorded free of all prior liens other than tax liens and also free of encumbrances that the Executive Director determines may affect the interest being conveyed. Subject to the review and approval of the Executive Director, existing easements for subsurface drainage devices and subsurface or overhead utilities within the OSCA Trails may remain recorded against the property in higher priority position than the offer provided that such utility/drainage easements and associated facilities are not having an ongoing existing adverse impact on the habitat value of the OSCA or the

public access and passive recreational use of the OSCA Trails and will not have a future adverse impact on the same. Any existing encumbrances allowing activities that the Executive Director determines may be having or may have such adverse impacts shall be extinguished or subordinated and the associated facilities removed by the applicant;

7. run with the land in favor of the People of the State of California, binding all successors and assignees, with the offer portion of the document, described in subdivision C.2, being irrevocable for a period of 21 years, such period running from the date of recording;
8. indicate that the restrictions on the use of the land shall remain as covenants, conditions and restrictions running with the land in perpetuity, notwithstanding any revocation of the offer.

12. Management and Maintenance Programs for Public Access, Recreational Use, and Open Space Areas

A. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the permittee shall provide for the review and approval of the Executive Director, a Management and Maintenance Program for (a) any public access and recreational use areas (b) the Open Space/Conservation Area ("OSCA"); and (c) the trails within the OSCA referred to in the prior condition as the OSCA Trails.

B. The final management and maintenance program(s) shall include the following:

1. IDENTIFY ALL ENTITIES RESPONSIBLE FOR MANAGEMENT AND MAINTENANCE OF THE PUBLIC ACCESS, RECREATIONAL USE, AND OPEN SPACE AREAS. The current owner(s) of each of the areas referenced in the introductory paragraph of this Special Condition (hereinafter, the "Public Benefit Areas") shall maintain those areas consistent with the final management and maintenance program until such time as any offer of an easement or fee title over one of those areas, required to be made pursuant to this permit, is accepted. Where such an offer is accepted by an entity in accordance with the terms and conditions of the offer(s) to dedicate required by this permit, the party accepting the offer, or its successor in interest as holder of that property interest, shall become responsible for management and maintenance of facilities within the easement area in perpetuity, unless the arrangements between the landowner(s) and the easement holder dictate that the landowner(s) shall retain all or part of said management and maintenance responsibility. All management and maintenance shall occur in accordance with the approved Management and Maintenance Program.

2. IDENTIFY THE FUNDING AND MAINTENANCE PROGRAM. The Management and Maintenance Program shall include:
   a. A funding program sufficient to fund the actual cost of maintenance and periodic repair and replacement of the facilities within the Public Benefit Areas, such as

public access walkways and associated appurtenances including, but not limited to, surfaces, landscaping (if any), and signage; and

b. A list of maintenance activities including but are not limited to: trash collection, repairs or replacement of surfaces due to cracks, spalling, broken concrete, etc., maintenance of gutters, curbs and sidewalks (keep free of debris, buildup, etc.), removal and/or trimming of vegetation that is interfering with public use of the OSCA, OSCA Trails, any other public access and recreational use areas, repair/replacement of public access signs, trash receptacles, benches, handrails, stairs, and lighting for the OSCA, OSCA Trails, and recreational areas.
c. A funding program sufficient to fund the actual cost of maintenance and periodic vegetation enhancements including on-going restoration, habitat enhancements for identified sensitive species, and repair and replacement of associated appurtenances including, but not limited to, fencing and signage for the OSCA, OSCA Trails, recreational areas; and
d. A list of maintenance activities related to the on-going restoration and habitat enhancement for the OSCA, OSCA Trails, and recreational areas.

13. Construction Staging and Corridors Plan

A. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit, for review and approval of the Executive Director, two (2) sets of revised Construction Staging and Corridors Plan, with drawings to be supplied in size 11" x 17" or larger. The revised plans shall conform to the General Project Design Parameters and General Exceptions to Project Design Parameters as identified in **Special Condition 1** (Revised Plans). The revised construction staging and corridors plan shall demonstrate that:

1. No construction activity, construction staging, or materials, debris, waste or equipment storage shall occur outside the "buildable areas" as identified in **Exhibit 4** (Constraints on Banning Ranch);
2. Prior to commencement of soil clean up, site preparation, grading and construction, temporary barriers shall be placed at the limits of grading for these portions of the development that are adjacent to ESHA, wetlands, vernal pool watershed, archeological resources, and their buffers and all other identified constraints. The barriers shall be a minimum 8 feet tall and one-inch thick in those areas adjacent to occupied gnatcatcher habitat. Solid physical barriers shall be used at the limits of grading adjacent to all other ESHA and wetlands. Barriers and other work area demarcations shall be inspected by a qualified biologist to assure that such barriers and/or demarcations are installed consistent with the requirements of this permit. All temporary barriers, staking, fencing shall be removed upon completion of construction of the parks, roads, residential and commercial development.
3. No construction materials, debris, or waste shall be placed or stored where it may enter sensitive upland habitat or wetlands, storm drain, receiving waters, or be subject to wind erosion and dispersion.
4. Any inadvertent impacts to ESHA or wetlands or constraints by the proposed development shall be reported to the Executive Director within 24 hours of occurrence and shall be mitigated. Such mitigation shall require an amendment to

this permit or a new permit unless the Executive Director determines that no amendment or new permit is legally required.

5. The plan shall include, at a minimum, a site plan that depicts:
   a. limits of the staging area(s)
   b. construction corridor(s)
   c. construction site
   d. appropriate buffers as identified in **Exhibit 3b** (ESHA, Wetlands and Buffers)
   e. location of construction fencing and temporary job trailers with respect to existing wetlands and sensitive habitat
   f. Compliance with 'Interim Erosion Control and Construction Responsibilities' **Special Condition 26** of this coastal development permit.

B. The final plan shall be in conformance with the site/ development plans approved by the Coastal Commission. Any necessary changes to the Coastal Commission approved plans required by a qualified, licensed professional shall be reported to the Executive Director. No changes to the Coastal Commission approved final plans shall occur without an amendment to the coastal development permit, unless the Executive Director determines that no amendment is legally required.

14. Habitat Management Plan

A. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the permittee shall submit a revised habitat preservation and mitigation plan (i.e., habitat management plan) for review and approval by the Executive Director in consultation with the USFWS and the CDFW. The permittee shall implement and comply with the habitat protection, enhancement, restoration and mitigation measures in the habitat management plan approved by the Executive Director; the primary elements of which are described within the document titled Habitat Conservation and Conceptual Mitigation Plan for the Newport Banning Ranch Property dated October 2013, which shall be revised in the following ways:

1. The Final Habitat Management Plan (HMP) shall apply to the Open Space Conservation Area (OSCA) and not the development areas supporting residential and associated development, generally depicted as all areas of the 401 acre site not included in the "buildable areas" or the "Oil Remainder Areas" footprints as shown in **Exhibit 4** (Constraints on Banning Ranch) of the staff report.
2. Identification of location and total acreage of the open space on the site to which the HMP applies.
3. Identification of all areas and locations and acreage determined to be ESHA and Wetlands, per the map attached as **Exhibit 3a** to the staff report.
4. Identification of location and acreage, in sum, where the HMP requires conservation of intact habitat.
5. Identification of the approximately 27.93 acres of restoration, mitigation, and enhancement required by settlement agreements between the applicant and the Commission (CCC-11-CD-03 & CCC-11-RO-02 dated April 14, 2011 and CCC-15-CD-01 & CCC-15-RO-01, dated May 12, 2015) and identification of acreage and location of all existing on-site restoration and past mitigation areas as required by CCC and all other regulatory agencies so as to avoid overlap of the mitigation

acreage. Pursuant to Consent Orders Nos. CCC-11-CD-03 & CCC-11-RO-02 and Nos. CCC-15-CD-01 & Nos. CCC-15-RO-01, the applicant has agreed not to use the restoration or mitigation projects described in the consent orders for the purpose of generating mitigation or restoration credits to satisfy any State or Coastal Commission requirement for restoration or mitigation, which includes all restoration and mitigation requirements described herein.

6. To provide for in-place and in-kind restoration of all identified ESHA and wetland habitats disturbed or removed during implementation of the oilfield clean-up activities described in the Santa Ana Regional Water Quality Control Board approved Remedial Action Plan ("RAP").
7. To provide for the identification of the location, type, and acreage of impacts to ESHA and Wetlands as a result of the oil contaminated soil and oil and gas infrastructure clean-up and removal work consistent with the requirements of **Special Condition 9** (Quantification of Oilfield Impacts). This mapping and quantification of impacts shall specify the amounts of ESHA and wetland vegetation and habitat within the categories listed in the table of mitigation ratios provided as a part of this condition below that are disturbed or removed during clean-up activities. As shown on **Exhibit 18** (Estimated Oil Field Clean-Up Sites in ESHA and Wetlands), the estimated total area of wetland and ESHA impacts from oilfield clean-up activities is 59 acres.
8. Identification of the onsite location, habitat type, and acreage required for mitigation, at the appropriate ratio, provided in the mitigation ratio table below, for the impacts to ESHA and wetlands from the oil contaminated soil and oil and gas infrastructure clean-up and removal work. As an initial planning step, the estimated type and acreage of impacts shown in **Exhibit 18** (Estimated Oil Field Clean-Up Sites in ESHA and Wetlands) shall be used to identify, delineate, and prioritize potential restoration areas onsite.
9. Prior to the start-up of project activities, and as needed for new personnel, a qualified biologist approved by the Executive Director in consultation with other appropriate resource agencies shall conduct a brief training session for all personnel working on the oil field. Training shall include a description of all sensitive species potentially occurring on or near sites, details on each species habitat, the protective measures to be implemented for each species, a description of the role of biological monitors, what to do if a sensitive species is observed on site including the contact list for immediate notification, and the responsibilities of those on site to protect resources. A video may be produced to satisfy this requirement.
10. Addition of a plan to create two high-functioning vernal pool complexes. One in the area containing wetlands C and CC, and one in the area containing the following wetlands, vernal pools and periodically ponded areas: VP1, VP2, VP3, E, G, H, I, J and M, each with the following elements:

    a. The plan shall be created in consultation with the USFWS and approved by the Executive Director.

    b. The plan shall be created and implemented by a qualified biologist with demonstrated experience in vernal pool creation and restoration who must be approved by the Executive Director.

c. The plan shall be implemented in a phased manner over several years such that some undisturbed ponds containing a viable San Diego fairy shrimp population are always present. New vernal pools shall be created and success criteria met before existing San Diego fairy shrimp vernal pools are disturbed.

d. A hydrological analysis demonstrating that the area containing the vernal pool complex is sufficiently large to include an adequate watershed.

e. The vernal pool complex that includes vernal pool VP1 shall have unimpeded contiguous connectivity to the undeveloped open space and wildlife corridor in the adjacent north-south arroyo and contiguous connectivity to the undeveloped open space and wildlife corridor to the north in the form of a wildlife movement road underpass that is designed by a qualified biologist and an engineer.

f. Several features named above may be significantly disturbed by oilfield clean-up activities. Shallow soil (upper 6 to 12 inches) containing the propagules of vernal pool plants and animals must be carefully removed and appropriately stockpiled for use in later restoration (excepting therefrom soils too contaminated to successfully use in the restoration).

g. Mitigation for the fill of wetlands and vernal pools as a result of oil field remediation activities shall take the form of vernal pool creation. Such mitigation shall occur near the remediated wetland. The mitigation ratio shall be at least 4:1 (area created:area filled). Mitigation requirements for remediation activities in the lowlands may be partially discharged by the creation of vernal pools within the two vernal pool complexes described above. The final locations of created vernal pools shall be approved by the Executive Director in consultation the USFWS and where appropriate the CDFW.

9. Remove all references to the "mitigation bank." A mitigation bank is not approved as part of this coastal development permit.
10. For areas outside of Burrowing Owl foraging ESHA, identification of the location and acreage of preserved and developed grassland raptor foraging habitat on the upper mesa demonstrating that for each acre developed, 0.5 acre is preserved or created.
11. Impacts to Burrowing Owl Foraging Grasslands that include non-native grasses shall be restored with salt-grass and native grasslands.
12. Identification of location and acreage of all permanent and temporary impacts associated with implementation of the RAP and the residential and commercial development plan on "non-ESHA purple needlegrass" habitat and identify the required mitigation location and acreage to address the impact.
13. The HMP shall include mitigation measures for impacts that are accidental or unanticipated throughout the development phases and across the entire site. Accidental impacts shall be reported to the Executive Director in post-construction monitoring reports.
14. The HMP shall identify high functioning reference sites appropriate for each vegetation community to be created, restored, or enhanced. The reference sites shall be quantitatively sampled and the results included in the HMP. The reference sites

shall be the basis for the goals and success criteria of the various restoration efforts. Reference sites should be on or as near as feasible to Banning Ranch.

15. Only plant communities that are currently present or are demonstrated to have been previously present on Banning Ranch shall be restored or created.
16. All existing utilities shall be removed/relocated outside the constraints areas and all related easements shall be extinguished prior to commencement of construction of any residential development.
17. Onsite mitigation shall be provided for all temporary and permanent adverse impacts to ESHA and wetlands. This mitigation shall be calculated based on the mitigation ratios provided below and shall be applied based on the results of the clean-up impacts assessment and quantification surveys required in **Special Condition 9** (Quantification of Oilfield Clean-up Impacts) and part 7 of this condition.
18. The plan shall calculate the acreage of mitigation based on the ratios below:

Mitigation Ratios for Creation or Substantial Restoration of Habitat-

Habitat	**Mitigation ratio** (restored area: impacted area)
ESHA Purple Needlegrass	3:1
Non-ESHA Purple Needlegrass	2:1
Wetlands	4:1
Vernal Pool Wetlands with San Diego Fairy Shrimp	10:1
Coastal Sage Scrub Vegetation	3:1
Riparian Vegetation	3:1
ESHA Burrowing Owl Foraging grasslands - salt grass	2:1
ESHA Burrowing Owl Foraging grasslands - non-native and ruderal grass	1:1

Mitigation Ratios for Enhancement of Existing Habitat-

Habitat	**Mitigation ratio** (restored area: impacted area)
Wetlands	8:1
Vernal Pool Wetlands with San Diego Fairy Shrimp	20:1
Coastal Sage Scrub Vegetation	6:1
Riparian Vegetation	6:1

19. For the purposes of the HMP- the following definitions shall apply:
Creation of New Habitat shall refer to the conversion of one habitat type to another, for example conversion of upland to wetland or conversion of predominantly exotic vegetation to native vegetation. Creation often entails activities such as remedial grading, or grading to create depressions to support wetlands, alterations to the soil, and an extensive planting program.

    Substantial Restoration shall refer to restoration that entails significant changes to the existing habitat or reestablishment of historical habitat and often entails activities such as altering topography or hydrology, extensive removal of invasive and other non-native species, and planting of native species using both seeds and container plants.

    Enhancement of Existing Habitat shall refer to relatively minor alterations, such as hand- weeding or other removal of non-native species, planting of a few trees or other major structure-producing species, seeding to increase plant diversity, or adding habitat features such as large woody debris.

20. If the permittee cannot identify sufficient area and acreage on the 401 acre site to locate all required mitigation at the ratios above, the applicant must apply for a permit amendment to reduce the acreage of the proposed residential and commercial and park space and increase the acreage of the open space in order to allow for additional acreage to accept the restoration and mitigation.

21. Additional Components of the HMP shall include two types of restoration programs, (1) a site-specific program that would apply only to the specific areas of ESHA or wetland in which oilfield clean-up activities occur and would be designed to address, in-place, and in-kind, the adverse impacts documented in the clean-up impacts assessment and quantification survey described in **Special Condition 9**; and (2) a general restoration and monitoring program that would be implemented to meet the additional habitat creation or enhancement requirements that would result from application of the mitigation ratios outlined in the table included above:

    A. SITE-SPECIFIC RESTORATION AND MONITORING PROGRAM

    For each clean-up site in and immediately around an area of ESHA or wetland, as shown in **Exhibit 3a and Exhibit 18**, the applicant shall submit and have approved by the Executive Director a site specific Habitat Restoration, Revegetation, and Monitoring Plan for that site. Consolidated plans may also be submitted for approval that include multiple sites with the same or similar habitats and clean-up targets (for example pipelines or power poles). The applicant shall not commence any ground-disturbing activity at any site until receiving written sign-off on said plan for that site or group of sites from the Executive Director. Each site-specific or consolidated Habitat Restoration, Revegetation, and

Monitoring Plan shall include, but not necessarily be limited to, the following elements:

1. A detailed in-situ restoration plan indicating the type, size, and extent of all plant materials, any irrigation system and other landscape features to be used to revegetate ESHA and wetland impacts. Implementation of the approved restoration plan shall occur within 60 days of approval by the Executive Director or within such additional time as the Executive Director may grant for good cause. The restoration plan shall be developed in consultation with the USFWS and the CDFW and at a minimum shall include:

   A pre-disturbance biological survey carried out subsequent to the Executive Director's approval of a site-specific clean-up plan required in Special Condition 9 and prior to the site clean-up, remediation, well abandonment, or infrastructure removal activities described in that approved plan. The survey shall identify all species occupying or using the site and estimate the abundance (density or percentage ground cover), size or age structure, and condition of resident species, and the intensity of use (e.g., time spent foraging or loafing) of non-resident species. Wildlife surveys must be conducted within 24 months prior to the disturbance and must include surveys conducted during the seasons during which disturbances will occur. Vegetative surveys must be conducted within 6 months prior to the disturbance. Surveys of sensitive species must be conducted within 90 days prior to the disturbance. Sensitive species are defined as: (a) species that are listed by state or federal agencies as threatened or endangered or which are designated as candidates for such listing; (b) species listed as G1-G3 and/or S1-S3 by the California Natural Diversity Database; (c) CDFW species of special concern; (d) plants considered rare, endangered, or of limited distribution by the California Native Plant Society. Individuals and colonies shall be mapped and clearly marked, their condition shall be determined, and numbers of individuals or percentage of ground coverage or other appropriate measure of abundance shall be determined and recorded. Ground level photographs shall be taken within 30 days of the disturbance.

2. Where delineated wetlands are present, prior to any project activities, the local hydrology and the soil profile to the depth of the expected excavation will be analyzed and described by appropriate specialists approved by the Executive Director in consultation with other relevant permitting agencies. The parameters to be assessed shall include depth, composition, and texture of wetland soils, and a description of any relatively impervious confining layers. Representative soil borings will be preserved and retained by the applicant until habitat restoration and revegetation has been successfully completed, unless otherwise approved by the Executive Director. The purpose of this condition is to provide the information necessary for physical restoration

appropriate to the re-creation of self-sustaining wetland habitat similar to that which existed prior to excavation.

3. A map shall be prepared with a polygon representing the geographic limits of estimated disturbance and the geographic boundary of restoration and revegetation activities. The disturbance boundary will be physically delineated in the field. The boundary of restoration activities may be larger.

4. Each site-specific plan shall incorporate construction monitoring measures that include, but are not necessarily be limited to, the following elements:
   i. Pre-construction topographic survey information.
   ii. Specifications for soil compaction, for grading and contouring, for quantity and physical/chemical characteristics of replacement soils and fill, for topsoil maintenance or replacement, for erosion control procedures, and other development activities. Upon completion of an excavation, the ground surface shall be restored to approximate its pre-construction topographic profile. The area surveyed must include the entire limits of work including access corridors, staging areas, overburden storage areas and topsoil storage areas.
   iii. Protocols to determine quantitatively, following physical restoration and grading, whether the physical habitat has been built-to-plan. The post-construction monitoring report must be approved by the Executive Director prior to revegetation efforts within the area physically restored. This does not preclude early restoration and revegetation activities in portions of the site not subject to construction activities.

5. Each site-specific plan shall incorporate erosion control and stabilization measures that must include, but not necessarily be limited to: (a) monthly monitoring for erosion during the annual rainy season (including the period November through March), until biological performance criteria have been met; (b) remedial measures in the event of erosion; and (c) ongoing erosion control and stabilization measures, which may include appropriate physical measures (e.g., installation of jute netting) and revegetation activities.

6. Each site-specific plan shall include a description of the habitat and revegetation goals in terms of abundance (e.g., density or percentage ground cover), height or other growth characteristics, recruitment and survival, and general dispersion of particular plant species, and the population characteristics (e.g., density, age or size structure) and habitat use by wildlife species. Site-specific plans shall include technical details of collecting seeds and other propagules, propagation, planting, routine monitoring and maintenance (including irrigation), wildlife introductions, and a time schedule. Specific facilities and staff will be identified.

7. Each site-specific plan shall include specific erosion control and ecological performance criteria that relate logically to the local restoration and revegetation goals. Where there is sufficient information to provide a strong scientific rationale, the performance criteria shall be absolute (e.g., a specified percentage ground cover or a specified average height within a specified time for a species). Where absolute performance criteria cannot reasonably be formulated, clear relative performance criteria will be specified. Relative criteria are those that require a comparison of the restoration site with reference sites. Reference sites should be located on Banning Ranch or the most proximal area with similar biological conditions. In the case of relative performance criteria, the rationale for the selection of reference sites, the qualitative or quantitative comparison procedure, and the basis for judging differences to be significant will be specified. If the comparison requires a statistical test, the test will be described, including the desired magnitude of difference to be detected, the desired statistical power of the test, and the alpha level at which the test will be conducted. The design of the sampling program shall relate logically to the performance criteria and chosen methods of comparison. The sampling program shall be described in sufficient detail to enable an independent scientist to duplicate it. Frequency of monitoring and sampling shall be specified for each parameter to be monitored. Sample sizes shall be specified and their rationale explained. Using the desired statistical power and an estimate of the appropriate sampling variability, the necessary sample size will be estimated for various alpha levels, including 0.05 and 0.10.

8. The applicant shall fund an independent biological performance monitor to be approved by the Executive Director in consultation with other relevant permitting agencies to conduct performance monitoring. The performance monitors will coordinate their activities with the applicant and with its revegetation contractors. The performance monitors and revegetation contractors are encouraged to cooperate in field sampling, but the performance monitors shall direct the performance monitoring activities. Performance monitoring shall commence one year following the completion of habitat restoration and revegetation and continue until performance standards have been met for two consecutive years after the end of maintenance activities (e.g., watering, replanting etc.) or for five years, whichever is shorter. If performance standards are not met in five years, or if prior to that time NBR concludes that restoration and revegetation will not meet performance standards, within 180 days the applicant shall apply to the Coastal Commission for an amendment to this coastal development permit which will include alternative mitigation.

B. GENERAL RESTORATION AND POST-CONSTRUCTION MONITORING PROGRAM

A qualified biologist approved by the Executive Director in consultation with other appropriate resource agencies with demonstrated success restoring and monitoring native southern California coastal habitats shall design the restoration and monitoring program as a component of the HMP. The general restoration and monitoring program shall be developed to ensure that the mitigation area requirements established above are met and shall at a minimum include the following:

1. Plans for site preparation and preservation of native seed bank;
2. Restoration plan for the respective native habitats based on reference site survey data (species composition, dominant species relative cover, total percent cover, etc.) including planting design, plant palette, source of plant material, plant installation, watering, erosion control, soil fertilization and weed abatement;
3. Final Success Criteria. The restoration will be considered successful if the overall species composition and the vegetative cover of appropriate native species within each of the vegetative layers (e.g., herbs or shrubs) are similar to those metrics in relatively undisturbed vegetation of the same type in nearby reference areas. Random sampling of the restoration and reference sites will be done with sufficient replication to detect a 10% absolute difference in cover with 90% power with alpha=0.10.
4. The sampling design to be employed, an estimate of the sample variance, and a statistical power analysis to estimate the necessary number of samples to meet the requirements specified above.
5. Provisions for assessing the initial biological and ecological status of the "as built" restoration site within 30 days of establishment of the restoration site in accordance with the approved restoration program. The assessment shall include an analysis of the attributes that will be monitored pursuant to the program, with a description of the methods for making that evaluation.
6. Provisions for monitoring and remediation of the restoration site in accordance with the approved final restoration plan for a period of at least five (5) years.
7. Provisions for documenting nesting and foraging activity by birds on Banning Ranch, including focused nesting season and winter season surveys for birds of prey, including burrowing owls, and rare species. During the nesting season, intensive surveys of coastal California gnatcatchers shall take place to estimate breeding territories, nests, incubation, and fledging success. The survey methods shall be detailed in the HMP. Protocol level surveys of gnatcatchers, cactus wren, Belding's savannah sparrow, least bells vireo and any other rare bird species and of birds of prey shall be initiated during the year the HMP is approved and continue during construction and for 5 years after construction has ceased.
8. Provisions for submission of annual reports of monitoring results to the Executive Director for the duration of the required monitoring period, beginning the first year after submission of the "as-built" assessment. Each

report shall be a cumulative report that summarizes all previous reports. Each report shall document the condition of the restoration with photographs taken from the same fixed points in the same directions. Each report shall also include a "Performance Evaluation" section where information and results from the monitoring program are used to evaluate the status of the restoration project in relation to the performance standards.

9. Provisions for submission of a final monitoring report to the Executive Director at the end of the monitoring period. Final performance monitoring shall take place after at least three (3) years without remediation or maintenance other than weeding. The performance monitoring period shall either be five (5) years or three (3) years without maintenance or remediation, whichever is longer. The final report must be prepared by a qualified biologist. The report must evaluate whether the restoration site conforms to the goals, objectives, and performance standards set forth in the approved final restoration program. The report must address all of the monitoring data collected over the five-year period.
10. If the final report indicates that the restoration project has been unsuccessful, in part, or in whole, based on the approved performance standards, the applicant shall submit within 90 days a revised or supplemental restoration program to compensate for those portions of the original program that were necessary to offset project impacts which did not meet the approved performance standards. The revised restoration program, if necessary, shall be processed as an amendment to this coastal development permit.

C. RARE PLANT PROTECTION MEASURES DURING CONSTRUCTION

The HMP shall include a rare plant protection plan that demonstrates that potential impacts to rare plant species within the project area will be minimized to the extent feasible throughout the course of the clean-up and removal of oil contaminated soil and oil and gas infrastructure, material treatment, processing, stockpiling, borrow, and disposal, construction, and restoration activities. The rare plant protection plan shall include all of the following:

1. Seasonally appropriate sensitive plant surveys, conducted by a qualified botanist in conformance with applicable CNPS or CDFW guidelines, shall be completed as close as possible to the initiation of ground disturbing activities, but in no case more than 12 months prior to such activities. The results of the sensitive plant survey shall be reported with a map(s) depicting the locations of rare plants in relation to proposed removal of oil contaminated soil and oil and gas infrastructure; material treatment, processing, stockpiling, borrow, and disposal; restoration; and construction activities at least 30 days prior to the initiation of such activities;
2. Sensitive plants will be flagged for avoidance using temporary flagging, which will be removed upon completion of work in an area;
3. During habitat restoration or enhancement, only manual methods (e.g., hand-pulling, shovels, and other hand tools) will be used to remove target invasive

plants within sensitive plant protection areas, and sensitive plants will be avoided to the maximum extent feasible during the course of manual removal activities;

4. Where impacts to sensitive plants cannot be avoided, either project activities will be delayed until rare annual plants have set and released seed or rare perennial plants are salvaged and transplanted to nearby suitable habitat that will be protected from project impacts. Before ground disturbance, topsoil containing the seed bank shall be removed and stockpiled where feasible. The plan shall include a description of proposed transplant areas for rare plants that cannot feasibly be avoided by project activities and the approximate number of plants to be transplanted; and
5. A schedule for the implementation of rare plant protection measures and authorized restoration activities.

D. DUST CONTROL PLAN

The HMP shall include a Dust Control Plan that shall include measures to control fugitive dust emissions during project construction, including:

1. Coastal Sage Scrub and Bluff Scrub habitat within the likely dust radius resulting from earth moving activities shall be sprayed periodically with clean water to reduce accumulated dust on the leaves, as recommended by the monitoring biologist.
2. Apply water three times daily, to control fugitive dust, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and any disturbed lands that are unused for 14 consecutive days within the staging areas of the final approved Staging Plan if construction activity causes persistent visible emissions of fugitive dust beyond the work area;
3. Pre-water sites as appropriate up to 48 hours in advance of clearing;
4. Spray all dirt stock-pile areas daily as needed;
5. Cover loads in haul trucks or maintain at least 6 inches of free-board when traveling on public roads; Pre-moisten prior to transport and import and export of dirt, sand, or loose materials;
6. Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets or wash trucks and equipment before entering public streets; and
7. Plant vegetation (in accordance with the final approved landscaping plan and restoration plan) in disturbed areas as soon as possible following construction, taking into account the appropriate planting season.
8. The Plan shall describe how these measures will be implemented and monitored throughout construction.

E. BIOLOGICAL MONITORING DURING CONSTRUCTION

The HMP shall include provisions to have a qualified third-party monitoring biologist on-site during all vegetation clearing and any other project-related work with the potential to impact sensitive wildlife species. The biologist must be

knowledgeable of the biology and ecology of sensitive wildlife species with the potential to occur on the project site and wetland ecology. The following measures shall be taken prior to and during construction:

1. PRIOR TO CONSTRUCTION, OIL WELL ABANDONMENT, OR SOIL AND INFRASTRUCTURE CLEAN-UP AND REMOVAL ACTIVITIES, pre-construction surveys shall be conducted within seven (7) days of the start of construction by a qualified biologist to determine the presence of any sensitive wildlife species with the potential to occur on the project site. All pre-construction surveys shall be submitted to the Executive Director within 30 days of occurrence.
2. At minimum, monitoring shall occur once a week during any week in which construction occurs. Daily monitoring shall occur during development which could significantly impact biological resources such as excavation, grading, or construction that could result in disturbances to any sensitive species identified in biological monitoring reports. Based on field observations, the biologist shall advise the applicant regarding methods to minimize or avoid significant impacts that could occur upon sensitive species or habitat areas. The applicant shall not undertake any activity that would disturb sensitive species or habitat area unless specifically authorized under this coastal development permit or unless an amendment to this coastal development permit for such disturbance has been obtained from the Coastal Commission.
3. The limits of vegetation removal will be delineated in all areas adjacent to wetlands and ESHA and wetland and ESHA buffers as identified in **Exhibit 3b** (ESHA, Wetlands and Buffers) of the staff report, by bright orange plastic fencing, or by stakes, flags, or markers that are clearly visible to personnel on foot and in heavy equipment.
4. Removal of oil contaminated soil and oil and gas infrastructure; material treatment, processing, stockpiling, borrow, and disposal; Grading, Construction, restoration and other site disturbances shall be phased and scheduled to avoid the breeding seasons of special status species that are found to be present in the construction area to the maximum extent feasible.

F. PROTECTION OF BIRD NESTS AND FORAGING AREAS

The HMP shall include the following provisions for the protection of nests and foraging areas during construction:

Nesting Birds-Development During Breeding Season

1. If construction activities, including but not limited to grading, oilfield clean-up; removal of oil contaminated soil and oil and gas infrastructure; material treatment, processing, stockpiling, borrow, and disposal; construction; and restoration activities, or other disturbance are to occur between February 1 and September 15, a pre-construction nesting bird survey shall be conducted to determine the presence of active nests within 500 feet of the construction activities. The nesting bird surveys shall be

completed no more than 72 hours prior to any construction activities. All ground-disturbance activities within 500 feet of raptor nests or 300 feet of other active nests or as specified below shall be halted until that nesting effort is finished.

2. The monitor shall review and verify compliance with these nesting boundaries and shall verify when the nests have been naturally vacated for the season, with no human interference. Work may resume when no other active nests are found. Upon completion of the survey and any follow-up construction avoidance management, a report shall be prepared and submitted to the Executive Director.
3. Appropriate noise-abatement measures (e.g., sound walls) shall be implemented to ensure that noise levels are less than 60 A-weighted decibels (dBA) at the active nest of a listed species, as determined by the biological monitor. This shall be verified by weekly noise monitoring at an equivalent location conducted by a qualified Acoustical Engineer during the breeding season (February 1 to September 15) or as otherwise determined by a qualified biological monitor based on nesting activity.

California Gnatcatcher-Development Outside Breeding Season

4. Prior to and during the disturbance of any suitable gnatcatcher habitats outside the gnatcatcher breeding season, the biologist shall locate any individual gnatcatchers on-site and direct clearing to begin in an area a minimum of 300 feet away from the birds. No site disturbance shall occur until the individual birds have naturally vacated the area without human interference. It shall be the responsibility of the permittee to assure that gnatcatchers shall not be directly injured or killed by impacts to Coastal Sage Scrub or Coastal Bluff Scrub.
5. Prior to initiating vegetation impacts or project construction, the biological monitor shall meet on-site with the construction manager or other individual(s) with oversight and management responsibility for the day-to-day activities on the construction site to discuss implementation of the relevant avoidance and minimization mitigation measures for gnatcatchers. The biologist shall meet as needed with the construction manager (e.g., when new crews are employed) to discuss implementation of these measures.

Burrowing Owl-Construction during Breeding and Wintering Seasons

6. Pre-construction burrowing owl surveys shall be conducted in accordance with the Staff Report on Burrowing Owl Mitigation (CDFW 2012) to determine the presence or absence of the burrowing owl within the project site limits, plus 500 feet beyond. In addition, the burrowing owl shall be documented as part of other surveys and the monitoring required during project construction.
7. If the burrowing owl is present on site during the nesting season (February 1 – August 31), CDFW buffer recommendations shall be followed

(CDFW 2012), which require buffers of 164 feet to 1,640 feet, depending on the level of disturbance and portion of the nesting season. If wintering burrowing owls are present (September 1 – January 31), which is more likely, no disturbance shall occur within 160 feet of occupied burrows.

8. During construction or demolition or abandonment, any pipe or similar construction material that is stored on site for one or more nights shall be inspected for burrowing owls by the biological monitor(s) before the material is moved, buried, or capped. The owls shall not be disturbed from the pipes during breeding season.

Light-footed Clapper Rail and Belding's Savannah Sparrow-Development During Breeding and Non-Breeding Seasons

9. Prior to temporary impacts to marsh habitat in the lowlands as depicted in the **Exhibit 3a** (ESHA and Wetlands), a focused survey shall be conducted for light-footed clapper rails and Belding's savannah sparrows in the spring prior to the proposed impact.
10. If either species is present, clean-up and removal of oil contaminated soil and oil and gas infrastructure; material treatment, processing, stockpiling, borrow, and disposal; construction; and restoration activities in the lowlands and all other activities, including restoration, involving the impacts to marsh or other wetland vegetation shall not occur within 500 feet of appropriate habitat during the nesting season (March 1 through September 15).
11. Restoration may occur during the non-nesting season if a pre-construction survey conducted within 30 days of construction demonstrates that no light-footed clapper rail or Belding's savannah sparrows are in the area of impact. If any of these species are observed within 100 feet of the impact areas, the restoration shall halt until such a time as the birds have naturally vacated the area with no human interference.
12. A Biological Monitor with experience in monitoring light-footed clapper rail and Belding's savannah sparrow shall be present during all development activities involving marsh or other wetland vegetation in the lowlands to minimize the likelihood of impacts to these sensitive bird species. The Biological Monitor shall stop construction if necessary to prevent such impacts.

Least Bell's Vireo-Development During Breeding and Non-Breeding Seasons

13. Activities involving disturbance or removal of riparian vegetation shall be prohibited during the least Bell's vireo breeding season (March 15 to September 15).
14. Vegetation impacts shall be monitored by a qualified Biologist. The Biological Monitor shall delineate (by the use of orange snow fencing or

lath and ropes/flagging) all areas adjacent to the impact area that contain habitat suitable for least Bell's vireo occupation.

15. Construction shall be prohibited within 500 feet of an active least Bell's vireo nest during the breeding season of this species (March 15 to September 15), unless otherwise directed by the USFWS and the CDFW.
16. If construction occurs during the breeding season, a summary of construction monitoring activities and noise monitoring results shall be provided to the USFWS and the CDFW following completion of construction.

15. Public Access and Parking Plan

PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT the applicant shall submit for the review and approval of the Executive Director a Public Access and Parking Plan which includes and conforms to the following elements: the applicant agrees on behalf of itself and all successors and assigns that all Streets, Roads, Trails, and public street parking within the Newport Banning Ranch development that is the subject of this permit shall be open to the public for use, including, but not limited to, pedestrian, bicycle, non-automobile use, and vehicular access consistent with the above special conditions. All publicly and privately maintained streets, trails, roads, and street parking areas shall be open for use by the general public 24 hours per day, 7 days a week, with the exception of standard limited parking restrictions for street sweeping and maintenance purposes. Long term or permanent physical obstruction of streets, roads and public parking areas shall be prohibited. All public entry controls (e.g. gates, gate/guard houses, guards, signage, etc.) and restrictions on use by the general public (e.g. preferential parking districts, resident-only parking periods/permits, roaming security personnel acting in a manner that discourages public use, etc.) on any streets, roads, trails, or public parking areas shall be prohibited. Access control and parking rates of parking structure use shall require an amendment to this coastal development permit or a separate coastal development permit from the Coastal Commission.

The extent of public trails and amenities shall not be reduced from that depicted on the approved final plans. The public access trails shall be maintained in a manner that promotes public use of these public trails, as proposed by the permittee and as described in and required by this permit. The permittee shall undertake development in accordance with the approved final plan. Any proposed changes to the approved final plan shall be reported to the Executive Director. No changes to the approved final plan shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.

16. Signage Plan

A. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit, for review and approval of the Executive Director, two (2) sets of revised final Transportation Demand Management Plan, with drawings to be supplied in size 11" x 17" or larger. The final plans shall conform to the General Design Parameters and General Exceptions to the Design Parameters as identified in **Special Condition 1** (Revised Plans), except in the isolated instances where the following would preclude

implementation of the exceptions listed. The permittee shall submit a Signage Plan, in compliance with the following:

1. Public Access Signage that directs the public to the public access and recreation easement areas, and OSCA Trails, on the project site and adjacent public access and recreation areas accessible from the site.
2. Conservation signage that directs the public to refrain from entering and disturbing conservation areas (OSCA) on the project site and educates the public about the habitat value and lists common disturbances to wildlife which are to be avoided, including but not limited to: domestic pets, littering, loud noises, lights, etc.
3. Signs shall be included that are located and sized such that they are visible from existing publicly accessible areas (e.g. nearby sidewalks, nearby public roads, nearby public parks) adjacent to the site. Signs shall invite and encourage public use of access opportunities and shall identify and direct the public to those locations.
4. Directional signage is required including direction to public parking, directional monuments (e.g. location of public amenities), and public trails. Directional signage to the coast and coastal access points is required.
5. Trail signage shall include mile markers, circulation, and kiosks with local trail maps, as well as regional trail maps.
6. Interpretative signage shall be limited to environmental and cultural educational signage.
7. Community monuments and entry-signs into the development from 17th street shall not create the appearance that the community is private and only open to residents and their guests; the public shall be openly welcomed. Such monuments and signs shall not exceed 42 inches in height above finished grade shall be no larger than signs for public trails.
8. Other signs necessary shall be included in the plan, such as facility identification, informational signage, and roadways signs. Signs shall be multi-lingual wherever possible.
9. All signs shall be installed only within the "buildable areas" identified on **Exhibit 4** (Constraints on Banning Ranch) or with the OSCA Trails trail right-of-way, consistent with **Special Condition 11** (Trails Within the Open Space/Conservation Area).
10. Signage shall acknowledge the California Coastal Commission's role in providing public access at this location by including the agency name and logo. For any trail that is a component or segment of the California Coastal Trail, trail signage shall identify it as part of the California Coastal Trail and also include the California Coastal Trail logo.

B. Signs and displays not explicitly permitted in this document that are inconsistent with or could undermine the purposes of the signage required pursuant to Section A of this condition shall require an amendment to this permit unless the Executive Director determines that no amendment is legally required. Any proposed changes to the approved final sign program shall be reported to the Executive Director. No changes to the approved final sign program shall occur without a Commission amendment to this

coastal development permit unless the Executive Director determines that no amendment is legally required.

17. Protection of Cultural Resources

A. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the permittee shall submit for the review and approval of the Executive Director a revised archeological research plan (ARP), prepared consistent with **Subsections G, H and I** of this condition, which shall incorporate the following measures and procedures:

Additional Tasks Required Prior to Any Ground Disturbance for the Oilfield Abandonment/Remedial Action or for Residential/Commercial Development:

1. The applicant shall comply with all recommendations and mitigation measures contained in the document titled "Archeological Research Plan, Newport Banning Ranch, Newport Beach, California" by Bonterra-Psomas dated July 2014, except as further modified by the final "Newport Banning Ranch Archaeological Testing Plan – August 2016" by Bonterra-Psomas, approved by the Executive Director on August 17, 2016 and by the conditions below and any other applicable conditions of this permit;
2. If recommended by the archaeological peer review committee, Native American groups and agency review process described in Subsection G, the applicant shall undertake additional archeological testing to determine the boundary of known prehistoric archeological sites and, where necessary, testing (including the use of cadaver dogs or other test methods recommended by peer-review) to ensure that all other prehistoric archeological sites that may be present on the site are identified and accurately delineated (to the maximum extent practicable and in accordance with current professional archeological practices). The purpose of any further testing is to locate and delineate the boundaries of all prehistoric cultural deposits present on the site and to avoid disturbance to those deposits by any of the development contemplated by the applicant in its proposal;
3. If any cultural deposits, including but not limited to skeletal remains and grave-related artifacts, traditional cultural, religious or spiritual sites, midden and lithic material or artifacts, are discovered during the additional archeological testing they shall not be exposed and the testing shall be immediately halted in this location. Additional testing shall be conducted further from the center of the discovery until sterile conditions are encountered. The revised ARP does not authorize the excavation of any cultural deposits nor data recovery. Nothing in this condition shall prejudice the ability to comply with applicable State and Federal laws if human remains are encountered. However, in compliance with applicable State and Federal laws the project archaeologist shall work with the County Coroner and other authorities to allow Native American human remains to be left in situ, to the maximum extent practical.
4. The revised ARP shall identify proposed mitigation measures for the recovery and/or relocation/reburial of prehistoric cultural deposits consistent with Native American Tribal guidance that shall be undertaken when the procedures outlined in the Clean-Up Target Confirmation Sampling in Sensitive Resource Areas condition (**Special**

Condition 8) are completed and, only if the Executive Director has determined that impacts to cultural deposits are necessary and unavoidable to conform with State or Federal soil or water clean-up standards. Further, the revised ARP shall provide the method of construction associated with oilfield clean-up, including but not limited to the types and weight of mechanized equipment to be used, and the storage locations of such equipment. The Plan shall require that pipes and other oil infrastructure be removed by hand wherever possible, in order to avoid damage to archaeological resources;

5. Archeological and cultural resource monitoring shall be consistent with section C of this condition;
6. Implementation of the revised ARP shall not occur until the coastal development permit has been issued.

B. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the permittee shall submit for the review and approval of the Executive Director an archaeological mitigation plan, prepared by a qualified professional consistent with **Subsections G, H and I** of this condition, which shall incorporate the following measures and procedures:
   1. The permittee shall carry out significance testing of the cultural deposits that were excavated during archaeological testing in 2009 for the EIR process pursuant to **Subsection E** below, and, if cultural deposits are found by the Executive Director to be significant, additional investigation and mitigation, including but not limited to reburial of the items, in accordance with this special condition including all subsections shall be required. No significance testing, investigation or mitigation shall commence until the provisions of this special condition are followed, including all relevant subsections;

C. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the permittee shall submit for the review and approval of the Executive Director an archaeological monitoring and mitigation plan for the protection of archaeological/cultural resources during project grading and construction activities, prepared by a qualified professional, consistent with **Subsections G, H and I** of this condition, which shall incorporate the following measures and procedures:
   1. During all digging, ground disturbance, and subsurface activity on the site, Archaeological monitor(s) qualified by the California Office of Historic Preservation (OHP) standards and the Native American most likely descendants (MLDs) from each tribe when State Law mandates identification of MLDs, shall be present on the site.
   2. Also present during all digging, ground disturbance, and subsurface activity on the site shall be a minimum of 1 set of Native American monitors for every location of ground disturbance; 1 set shall include 2 individual monitors and be defined as one monitor representing the Gabrieleño-Tongva and one monitor representing the Juaneño-Acjachemen, as identified on the Native American Heritage Commission's

list (NAHC list)[7]. Both Native American monitors in the set shall be present at the same time and monitoring the same location.

3. More than 1 set of monitors on the site may be necessary during times with multiple grading and soil disturbance locations.
4. Tribal representatives selected for the monitoring set shall be rotated equally and fairly among all tribal groups identified as Gabrieleño-Tongva and Juaneño-Acjachemen on the NAHC list, such that every tribal group has an equal opportunity to monitor on the site.
5. During all digging, ground disturbance, and subsurface activity on the site, any Native American representatives of the Gabrieleño-Tongva and Juaneño-Acjachemen on the NAHC list are welcome to be present on the site and monitor, even if they are not the assigned set of monitors within the rotation for that day.
6. The permittee shall provide sufficient archeological and Native American monitors to assure that all project grading or other development that has any potential to uncover or otherwise disturb cultural deposits is monitored at all times. All archaeological monitors, Native American monitors and Native American most likely descendants (MLD) shall be provided with a copy of the final revised ARP, approved archaeological monitoring and mitigation plan required by this permit. Prior to commencement of grading, the applicant shall convene an on-site pre-grading meeting with the all archaeological monitors, Native American monitors and Native American most likely descendants (MLD) along with the grading contractor, the applicant and the applicant's archaeological consultant in order to ensure that all parties understand the procedures to be followed pursuant to the subject permit condition and the approved archaeological monitoring and mitigation plan, including the procedures for dispute resolution. At the conclusion of the meeting all attendees shall be required to sign a declaration, which has been prepared by the applicant, subject to the review and approval of the Executive Director, stating that they have received, read, discussed and fully understand the procedures and requirements of the approved archaeological monitoring and mitigation plan and agree to abide by the terms thereof. The declaration shall include contact phone numbers for all parties and shall also contain the following procedures to be followed if disputes arise in the field regarding the procedures and/or terms and conditions of the approved archaeological monitoring and mitigation plan, and ARP. Prior to commencement of grading a copy of the signed declaration shall be given to each signatory and to the Executive Director.
   (a) Any disputes in the field arising among the archaeologist, archaeological monitors, Native American monitors, Native American most likely descendants (MLD), the grading and construction contractors or the applicant regarding compliance with the procedures and requirements of the approved archaeological monitoring and mitigation plan or ARP shall be promptly reported to the Executive Director via e-mail and telephone.

[7] Both the Native American Heritage Commission's current California Tribal Consultation list and SB Contact18 list

(b) All work shall be halted in the area(s) of dispute. Work may continue in area(s) not subject to dispute, in accordance with all provisions of this special condition.
(c) Disputes shall be resolved by the Executive Director, in consultation with the archaeological peer reviewers, Native American monitors, Native American MLD, the archaeologist and the applicant.
(d) If the dispute cannot be resolved by the Executive Director in a timely fashion, said dispute shall be reported to the Commission for resolution at the next regularly scheduled Commission meeting.

7. If any cultural deposits are discovered during project grading or construction, including but not limited to skeletal remains and grave-related artifacts, traditional cultural sites, religious or spiritual sites, or other artifacts, the permittee shall carry out significance testing of said deposits and, if cultural deposits are found by the Executive Director to be significant pursuant to **Subsection E** of this condition and any other relevant provisions, additional investigation and mitigation in accordance with all subsections of this special condition;
8. If any cultural deposits are discovered, including but not limited to skeletal remains and grave-related artifacts, traditional cultural sites, religious or spiritual sites, or other artifacts, all development shall cease in accordance with **Subsection D** of this special condition;
9. In-situ preservation and avoidance of cultural deposits shall be considered as the preferred mitigation option, to be determined in accordance with the process outlined in this condition, including all subsections. A setback shall be established between the boundary of cultural deposits preserved in-situ and/or reburied on-site and any proposed development; the setback shall be no less than 50 feet and may be larger if necessary to protect the cultural deposits;
10. If human remains are encountered, the permittee shall comply with applicable State and Federal laws. Procedures outlined in the monitoring and mitigation plan shall not prejudice the ability to comply with applicable State and Federal laws. The range of investigation and mitigation measures considered shall not be constrained by the approved development plan. Where appropriate and consistent with State and Federal laws, the treatment of remains shall be decided as a component of the process outlined in the other subsections of this condition.

D. **Discovery of Cultural Deposits.** If an area of cultural deposits, including but not limited to skeletal remains and grave-related artifacts, traditional cultural sites, religious or spiritual sites, or other artifacts, is discovered during the course of the project, all grading and construction activities in the area of the discovery that have any potential to uncover or otherwise disturb cultural deposits in the area of the discovery and all construction that may foreclose mitigation options or the ability to implement the requirements of this condition shall cease and shall not recommence except as provided in **Subsections E and F** and other subsections of this special condition. In general, the area where construction activities must cease shall be 1) no less than a 200-foot wide buffer around the cultural deposit; and 2) no more than the residential enclave area within which the discovery is made.

E. **Significance Testing Plan Required Following the Discovery of Cultural Deposits.** An applicant seeking to recommence construction following discovery of the cultural deposits shall submit a Significance Testing Plan for the review and approval of the Executive Director. The Significance Testing Plan shall identify the testing measures that will be undertaken to determine whether the cultural deposits are significant. The Significance Testing Plan shall be prepared by the project archaeologist(s), in consultation with the Native American monitor(s), and the Most Likely Descendent (MLD) when State Law mandates identification of a MLD. Once a plan is deemed adequate, the Executive Director will make a determination regarding the significance of the cultural deposits discovered.

(1) If the Executive Director approves the Significance Testing Plan and determines that the Significance Testing Plan's recommended testing measures are de minimis in nature and scope, the significance testing may commence after the Executive Director informs the permittee of that determination.

(2) If the Executive Director approves the Significance Testing Plan but determines that the changes therein are not de minimis, significance testing may not commence until after the Commission approves an amendment to this permit.

(3) Once the measures identified in the significance testing plan are undertaken, the permittee shall submit the results of the testing to the Executive Director for review and approval. The results shall be accompanied by the project archeologist's recommendation as to whether the findings should be considered significant. The project archeologist's recommendation shall be made in consultation with the Native American monitors and the MLD when State Law mandates identification of a MLD. If there is disagreement between the project archeologist and the Native American monitors and/or the MLD, both perspectives shall be presented to the Executive Director. The Executive Director shall make the determination as to whether the deposits are significant based on the information available to the Executive Director. If the deposits are found to be significant, the permittee shall prepare and submit to the Executive Director a supplementary Archeological Plan in accordance with **Subsection F** of this condition and all other relevant subsections. If the deposits are found to be not significant by the Executive Director, then the permittee may recommence grading in accordance with any measures outlined in the significance testing program.

F. **Supplementary Archaeological Plan Required Following an Executive Director Determination that Cultural Deposits are Significant.** An applicant seeking to recommence construction following a determination by the Executive Director that the cultural deposits discovered are significant shall submit a Supplementary Archaeological Plan for the review and approval of the Executive Director. The Supplementary Archeological Plan shall be prepared by the project archaeologist(s), in consultation with the Native American monitor(s), the Most Likely Descendent (MLD) when State Law mandates identification of a MLD, as well as others identified in subsection E of this condition. The supplementary Archeological Plan shall identify proposed investigation and mitigation measures. If there is disagreement between the project archeologist and the Native American monitors and/or the MLD, both perspectives shall be presented to

the Executive Director. The range of investigation and mitigation measures considered shall not be constrained by the approved development plan. Mitigation measures considered shall range from in-situ preservation to recovery and/or relocation. A good faith effort shall be made to avoid impacts to cultural resources through methods such as, but not limited to, project redesign, capping, and creating an open space area around the cultural resource areas. In order to protect cultural resources, any further development may only be undertaken consistent with the provisions of the final, approved, Supplementary Archaeological Plan.

(1) If the Executive Director approves the Supplementary Archaeological Plan and determines that the Supplementary Archaeological Plan's recommended changes to the proposed development or mitigation measures are de minimis in nature and scope, construction may recommence after the Executive Director informs the permittee of that determination.

(2)If the Executive Director approves the Supplementary Archaeological Plan but determines that the changes therein are not de minimis, construction may not recommence until after the Commission approves an amendment to this permit.

G. **Review of Plans Required by Archaeological Peer Review Committee, Native American Groups and Agencies.** Prior to submittal to the Executive Director, all plans required to be submitted pursuant to this special condition, including the revised ARP, the mitigation plan for the cultural deposits that were excavated during archaeological testing for the EIR process, and the monitoring and mitigation plan during project grading, excepting any Significance Testing Plan, shall have received review and written comment by a peer review committee convened in accordance with current professional practice. Names and qualifications of selected peer reviewers shall be submitted for review and approval by the Executive Director. Representatives of Native American groups with documented ancestral ties to the area, as determined by the NAHC, shall also be invited to review and comment on the above required plans. The plans submitted to the Executive Director shall incorporate the recommendations of the peer review committee and the Native American groups or an explanation provided as to why the recommendations were rejected. Furthermore, upon completion of the peer review and Native American review process, and prior to submittal to the Executive Director, all plans shall be submitted to the California Office of Historic Preservation (OHP) and the NAHC for their review and an opportunity to comment. The plans submitted to the Executive Director shall incorporate the recommendations of the OHP and NAHC. If any of the entities contacted for review and comment do not respond within 30 days of their receipt of the plan, the requirement under this permit for those entities' review and comment shall expire, unless the Executive Director extends said deadline for good cause. All plans shall be submitted for the review and approval of the Executive Director.

H. At the completion of the revised ARP, the mitigation plan for the cultural deposits that were excavated during archaeological testing for the EIR process, and the archaeological grading monitoring and mitigation plan, the applicant shall prepare a report, subject to the review and approval of the Executive Director, which shall include but not be limited to, detailed information concerning the quantity, types, location, and detailed description of

any cultural resources discovered on the project site, analysis performed and results and the treatment and disposition of any cultural resources that were excavated. The report shall be prepared consistent with the State of California Office of Historic Preservation Planning Bulletin #4, "Archaeological Resource Management Reports (ARMR): Recommended Contents and Format". The final report shall be disseminated to the Executive Director and the South Central Coastal Information Center at California State University at Fullerton.

I. The permittee shall undertake development in conformance with the approved plans unless the Commission amends this permit or the Executive Director determines that no amendment is legally required for any proposed minor deviations.

18. Indemnification by Permittee

Liability for Costs and Attorney's Fees. By acceptance of this permit, the Applicant/Permittee agrees to reimburse the Coastal Commission in full for all Coastal Commission costs and attorney's fees -- including (1) those charged by the Office of the Attorney General, and (2) any court costs and attorney's fees that the Coastal Commission may be required by a court to pay -- that the Coastal Commission incurs in connection with the defense of any action brought by a party other than the Applicant/Permittee against the Coastal Commission, its officers, employees, agents, successors and assigns challenging the approval or issuance of this permit. The Coastal Commission retains complete authority to conduct and direct the defense of any such action against the Coastal Commission.

19. Assumption of Risk, Waiver of Liability and Indemnity

By acceptance of this permit, the applicant acknowledges and agrees (i) that the site may be subject to hazards from flooding, sea level rise, erosion and wave uprush; (ii) to assume the risks to the applicant and the property that is the subject of this permit of injury and damage from such hazards in connection with this permitted development; (iii) to unconditionally waive any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards; and (iv) to indemnify and hold harmless the Commission, its officers, agents, and employees with respect to the Commission's approval of the project against any and all liability, claims, demands, damages, costs (including costs and fees incurred in defense of such claims), expenses, and amounts paid in settlement arising from any injury or damage due to such hazards.

20. No Future Protective Device(s)

By acceptance of this Permit, the applicant agrees, on behalf of itself and all successors and assigns, that no bluff or shoreline protective device(s) shall ever be constructed to protect the development approved pursuant to Coastal Development Permit 5-15-2097 including, but not limited to, the residences, trails, hardscape, and any other improvements and future improvements in the event that the development is threatened with damage or destruction from waves, erosion, storm conditions, bluff retreat, landslides, sea level rise, or other natural coastal hazards in the future. By acceptance of this Permit, the applicant/landowner hereby waives, on behalf of itself and all successors and assigns, any rights to construct such devices

that may now or in the future exist under Public Resources Code Section 30235 or analogous provisions of a Local Coastal Program.

By acceptance of this Permit, the applicant/landowner further agrees, on behalf of itself and all successors and assigns, that the landowner(s) shall remove the development authorized by this Permit, including, but not limited to, the residences, trails, hardscape, and any other improvements and future improvements if any government agency has ordered that the structures are not to be occupied due to any of the hazards identified above. In the event that portions of the development , before they are removed, fall to or slough onto Coast Highway, Semeniuk Slough or any dedicated open space the landowner shall remove all recoverable debris associated with the development from the area and lawfully dispose of the material in an approved disposal site. Such removal shall require a coastal development permit.

In the event the edge of the bluffs recedes to within twenty five (25) feet of any structure but no government agency has ordered that the structure is not to be occupied, a geotechnical investigation shall be prepared by a licensed coastal engineer and geologist retained by the landowner(s), that addresses whether any portions of the residence are threatened by bluff and slope instability, erosion, landslides, sea level rise or other natural hazards. The report shall identify all those immediate or potential future measures that could stabilize the principal structure(s) without bluff protection, including but not limited to removal or relocation of portions of the structure(s). The report shall be submitted to the Executive Director and the appropriate local government official. If the geotechnical report concludes that the structures or any portion of the structures are unsafe for occupancy, the permittee shall, within 90 days of submitting the report, apply for a coastal development permit amendment to remedy the hazard which shall include removal of the threatened portion of the structure(s).

21. Geotechnical Recommendations

A. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit, for the review and approval of the Executive Director, a final geotechnical report for the project which addresses required foundation design, fault zone setbacks, bluff top and canyon slope/bluff setbacks and etc. for the project authorized by this coastal development permit. The report shall be prepared and certified by an appropriate professional (i.e., civil or other appropriate engineer or architect). If the revised geotechnical report recommends use of any exposed foundation elements or any stabilization, soil recompaction or other grading not included in the current proposal, an amendment to this permit or a new permit shall be required in order to implement such recommendations. All final design and construction plans, including foundations, grading and drainage plans, shall be consistent with all recommendations contained in the report approved by the Executive Director.

B. PRIOR TO THE ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit, for the Executive Director's review and approval, evidence that an appropriate licensed professional has reviewed and approved all final design and

construction plans and certified that each of those final plans is consistent with all of the recommendations specified in the above-referenced geologic evaluation approved by the California Coastal Commission for the project site.

C. The permittee shall undertake development in conformance with the approved plans unless the Commission amends this permit or the Executive Director determines that no amendment is legally required for any proposed minor deviations.

22. Other Agency Approvals

PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, and prior to the submittal of any revised plans required by this coastal development permit, the applicant shall (1) provide to the Executive Director a copy of all required permits and approvals from the California Department of Fish and Wildlife, Regional Water Quality Control Board, US Army Corps of Engineers, and the US Fish and Wildlife Service, State Historic Preservation Officer, the City of Newport Beach or the County of Orange (hereinafter "other agencies") and provide them to the Executive Director; and (2) obtain from those other agencies a permit, or letter of permission, or evidence that no permit or permission is required. The applicant shall inform the Executive Director of any changes to the project required by the above agencies that are inconsistent with the Commission's approval of this coastal development permit. Such changes shall not be incorporated into the project until the applicant obtains an amendment to this coastal development permit.

23. Interim Erosion Control Plan and Construction Responsibilities

A. PRIOR TO THE ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit to the Executive Director an Interim Erosion Control and Construction Best Management Practices Plan, prepared by a qualified, licensed professional. The qualified, licensed professional shall certify in writing that the Interim Erosion Control and Construction Best Management Practices (BMPs) plan are in conformance with the following requirements:

1. Erosion Control Plan

(a) The plan shall delineate the areas to be disturbed by grading or construction activities and shall include any temporary access roads, staging areas and stockpile areas. The natural areas on the site shall be clearly delineated on the plan and on-site with fencing or survey flags.

(b) Include a narrative report describing all temporary run-off and erosion control measures to be used during construction.

(c) The plan shall identify and delineate on a site or grading plan the locations of all temporary erosion control measures.

(d) The plan shall specify that grading shall take place only during the dry season (April 1 – October 31). This period may be extended for a limited period of time if the situation warrants such a limited extension, if approved by the Executive Director. The applicant shall install or construct temporary sediment basins (including debris basins, desilting basins, or silt traps), temporary drains and swales, sand bag barriers, silt fencing, and shall stabilize any stockpiled fill with geofabric covers or other appropriate cover, install geotextiles or mats on all cut or fill slopes, and close and

stabilize open trenches as soon as possible. Basins shall be sized to handle not less than a 10 year, 6 hour duration rainfall intensity event.

(e) The erosion control measures shall be required on the project site prior to or concurrent with the initial grading operations and maintained throughout the development process to minimize erosion and sediment from runoff waters during construction. All sediment should be retained on-site, unless removed to an appropriate, approved dumping location either outside of the coastal zone or within the coastal zone to a site permitted to receive fill.

(f) The plan shall also include temporary erosion control measures should grading or site preparation cease for a period of more than 30 days, including but not limited to: stabilization of all stockpiled fill, access roads, disturbed soils and cut and fill slopes with geotextiles and/or mats, sand bag barriers, silt fencing; temporary drains and swales and sediment basins. The plans shall also specify that all disturbed areas shall be seeded with native grass species and include the technical specifications for seeding the disturbed areas. These temporary erosion control measures shall be monitored and maintained until grading or construction operations resume.

(g) All temporary, construction related erosion control materials shall be comprised of bio- degradable materials (natural fiber, not photo-degradable plastics) and must be removed when permanent erosion control measures are in place. Bio-degradable erosion control materials may be left in place if they have been incorporated into the permanent landscaping design.

2. Construction Best Management Practices

(a) No demolition or construction materials, debris, or waste shall be placed or stored where it may enter sensitive habitat, receiving waters or a storm drain, or be subject to wave, wind, rain, or tidal erosion and dispersion.

(b) No demolition or construction equipment, materials, or activity shall be placed in or occur in any location that would result in impacts to environmentally sensitive habitat areas, streams, wetlands or their buffers.

(c) Any and all debris resulting from demolition or construction activities shall be removed from the project site within 24 hours of completion of the project.

(d) Demolition or construction debris and sediment shall be removed from work areas each day that demolition or construction occurs to prevent the accumulation of sediment and other debris that may be discharged into coastal waters.

(e) All trash and debris shall be disposed in the proper trash and recycling receptacles at the end of every construction day.

(f) The applicant shall provide adequate disposal facilities for solid waste including excess concrete produced during demolition or construction.

(g) Debris shall be disposed of at a permitted disposal site or recycled at a permitted recycling facility. If the disposal site is located in the coastal zone, a coastal development permit or an amendment to this permit shall be required before disposal can take place unless the Executive Director determines that no amendment or new permit is legally required.

(h) All stock piles and construction materials shall be covered, enclosed on all sides, shall be located as far away as possible from drain inlets and any waterway, and shall not be stored in contact with the soil.
(i) Machinery and equipment shall be maintained and washed in confined areas specifically designed to control runoff. Thinners or solvents shall not be discharged into sanitary or storm sewer systems.
(j) The discharge of any hazardous materials into any receiving waters shall be prohibited.
(k) Spill prevention and control measures shall be implemented to ensure the proper handling and storage of petroleum products and other construction materials. Measures shall include a designated fueling and vehicle maintenance area, with appropriate berms and protection, to prevent any spillage of gasoline or related petroleum products or contact with runoff. The area shall be located as far away from the receiving waters and storm drain inlets as possible.
(l) Best Management Practices (BMPs) and Good Housekeeping Practices (GHPs) designed to prevent spillage and/or runoff of demolition or construction-related materials, and to contain sediment or contaminants associated with demolition or construction activity, shall be implemented prior to the on-set of such activity
(m) All BMPs shall be maintained in a functional condition throughout the duration of construction activity.

B. The final Interim Erosion Control and Construction Best Management Practices Plan shall be in conformance with the site/development plans approved by the Coastal Commission. Any necessary changes to the Coastal Commission approved site/development plans required by a qualified, licensed professional shall be reported to the Executive Director. No changes to the Coastal Commission approved final site/development plans shall occur without an amendment to the coastal development permit, unless the Executive Director determines that no amendment is required.

24. Water Quality Management Plan

A. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit to the Executive Director, two (2) copies of a final Water Quality Management Plan (WQMP), including Drainage Plans and Runoff Controls, for the post-construction project site. The final plan shall demonstrate substantial conformance with the Preliminary Water Quality Plan prepared by FUSCOE Engineering Inc. last updated 8/11/2016 except it shall be modified as required to conform to this coastal development permit. These plans shall be prepared by a qualified licensed water quality professional. The final WQMP shall include details on all aspects of water quality protection for the post-construction environment of this project, including detailed drainage and runoff control plan sheets, and all supporting BMP sizing calculations.

1. Drainage Plan: As proposed, this project includes the delineation of Drainage Management Areas (DMA), each with specific water quality protection practices, or suites of practices, based on the development type to reduce runoff and pollutants

from leaving each unit. Consistent with **Special Condition 1** for a revised site plan, the DMAs shall be limited to those required for the Urban Colony and the North Family Village (DMAs 1, 2, A, and B). A Drainage Plan shall be developed for each DMA which details the movement and discharge of runoff in the delineated DMAs. This plan shall include discharge directional indicators, sizing calculations for all associated BMPs included within the DMA in the final Drainage Plan.

2. Water Quality Management Plan: A final Water Quality Management Plan shall be developed for this project which incorporates long-term post-construction Best Management Practices (BMPs) that protect water quality and minimize increases in runoff volume and rate in the project design of developments.

   Per the "Water Quality Approach Technical Memorandum" (FUSCO, Co., 11/30/2015), and the Addendum to that memo (FUSCO, Co., 8/11/16), there are specific water quality practices which shall be implemented throughout the developed areas:

   a. On-lot BMPs classified as Hydrologic Source Controls (HSC)- including, rain catchment on individual residential units; and dispersion of rain and runoff flows from impervious surfaces to landscaped areas.
   b. Harvest and Reuse Area BMPs- including both above-ground and below-ground cisterns with a design capture volume (DCV) of at least the 85th percentile storm event for the DMA tributary area, capture 40% or greater of the tributary volume for reuse, and overflow to biofiltration areas prior to discharge into coastal waters.
   c. Biotreatment Area BMPs including:
      - (3.a) Community Biofiltration Basins, which are designed as flow through filtration systems to filter out sediments and pollutants associated with urban runoff at 1.5 times the DCV for each DMA.
      - (3.b) Street and Parkway Biotreatment BMPs, including modular wetland systems to be employed for filtering and treating roadway runoff, and designed to meet street design Biotreatment BMP specifications consistent with Buildable Areas of **Special Condition 1**.
   d. Off-site Runoff Treatment Basin, in the location as proposed, to address run on to the project site from adjacent areas, the project will include an on-site water quality treatment basin designed to treat runoff entering the development from external sources prior to discharge into coastal waters.

3. Runoff Controls- A final Drainage and Runoff Control Plan shall be developed which, at a minimum shall include the following water quality protection approaches and runoff controls throughout the development of the site, in the following order of priority:
   a. Site Design BMPs- Project design features that reduce the creation or severity of potential pollutant sources, or reduce the alteration of the project site's natural stormwater flow regime. Examples are minimizing impervious surfaces, preserving native vegetation, and minimizing grading.
   b. Source Control BMPs- Methods that reduce potential pollutants at their sources and/or avoid entrainment of pollutants in runoff, including schedules of activities,

prohibitions of practices, maintenance procedures, managerial practices, or operational practices. Examples are covering outdoor storage areas, use of efficient irrigation, and minimizing the use of landscaping chemicals.

c. Treatment Control BMPs- Systems designed to remove pollutants from stormwater by gravity settling of particulate pollutants, filtration, biological uptake, media adsorption, or any other physical, biological, or chemical process. Examples are vegetated swales, detention basins, and storm drain inlet filters. Where post-construction treatment of stormwater runoff is required, treatment control BMPs (or suites of BMPs) shall, at a minimum, be sized and designed to treat, infiltrate, or filter stormwater runoff from each storm event, up to and including the 85th percentile, 24-hour storm event for volume-based BMPs, or the 85th percentile, 1-hour storm event (with an appropriate safety factor of 2 or greater) for flow-based BMPs.

d. The qualified licensed professional shall certify in writing that the final Drainage and Runoff Control Plan is in substantial conformance with the following minimum requirements:

   i. Projects shall incorporate Low Impact Development (LID) techniques in order to minimize stormwater quality and quantity impacts from development, unless a credible and compelling explanation is provided as to why such features are not feasible and/or appropriate. LID strategies use small-scale integrated and distributed management practices, including minimizing impervious surfaces, infiltrating stormwater close to its source, and preservation of permeable soils and native vegetation.

   ii. Post-development runoff rates from the site shall be maintained at levels similar to pre- development conditions.

   iii. Selected BMPs shall consist, or primarily consist of, site design elements and/or landscape based systems or features that serve to maintain site permeability, avoid directly connected impervious areas and/or retain, infiltrate, or filter runoff from rooftops, driveways and other hardscape areas, where feasible. Examples of such features include but are not limited to porous pavement, pavers, rain gardens, vegetated swales, infiltration trenches and cisterns.

   iv. Landscape plants shall have low water and chemical treatment demands and be consistent with **Special Condition 4 and 6**, Landscaping and Fuel Modification Plan.

   v. All slopes shall be stabilized in accordance with provisions contained in the Landscaping and/or Interim Erosion and Sediment Control Condition for this Coastal Development Permit and, if applicable, in accordance with engineered plans prepared by a qualified licensed professional.

   vi. Runoff shall be discharged from the developed site in a non-erosive manner. Energy dissipating measures shall be installed to prevent erosion. Plan details and cross sections for any rock rip-rap and/or other energy dissipating devices or structures associated with the drainage system shall be prepared by a qualified licensed professional. The drainage plans shall specify the location, dimensions, cubic yards of rock, etc. for any velocity

reducing structure with the supporting calculations showing the sizing requirements and how the device meets those sizing requirements. The qualified, licensed professional shall ensure that all energy dissipaters use the minimum amount of rock and/or other hardscape necessary to protect the site from erosion.

vii. All BMPs shall be operated, monitored, and maintained in accordance with manufacturer's specifications where applicable, or in accordance with well recognized technical specifications appropriate to the BMP for the life of the project and at a minimum, all structural BMPs shall be inspected, cleaned-out, and where necessary, repaired, prior to the onset of the storm season (October 15th each year) and at regular intervals as necessary between October 15th and April 15th of each year. Debris and other water pollutants removed from structural BMP(s) during clean-out shall be contained and disposed of in a proper manner.

viii. Site drainage and BMP selection shall be developed concurrent with the preliminary development design and grading plan, and final drainage plans shall be approved by a licensed geotechnical engineer or engineering geologist.

ix. Should any of the project's surface or subsurface drainage/filtration structures or other BMPs fail or result in increased erosion, the applicant/landowner or successor-in- interest shall be responsible for any necessary repairs to the drainage/filtration system or BMPs and restoration of the affected area. Should repairs or restoration become necessary, prior to the commencement of such repair or restoration work, the applicant shall submit a repair and restoration plan to the Executive Director to determine if an amendment or new coastal development permit is required to authorize such work.

x. The structural BMPs shall be constructed prior to or concurrent with the construction of infrastructure associated with the residential and commercial development. Prior to the occupancy of residential or commercial structures approved by this permit, the structural BMPs proposed to service those structures and associated support facilities shall be constructed and fully functional in accordance with the final WQMP approved by the Executive Director.

xi. Structural BMPs shall incorporate natural treatment components (e.g. soft-bottom vegetated basins/bioswales) to the maximum extent practicable;

4. Other Requirements of the Plan:
   a. The use of chemical pesticides, herbicides, and rodenticides containing any anticoagulant compounds (including, but not limited to, Warfarin, Brodifacoum, Bromadiolone or Diphacinone), shall be prohibited. The use of fertilizers shall be minimized to the maximum extent practicable. An Integrated Pest Management Program (IPM) shall be implemented in all common area landscaping and encouraged in other development areas. The IPM Program shall be designed and

implemented for all of the proposed landscaping/planting on the project site and shall include the following IPM features, as appropriate:

i. Bacteria, viruses and insect parasites shall be considered and employed as a pest management measure, where feasible.
ii. Manual weeding, hoeing and trapping
iii. Use of non-toxic, biodegradable, alternative pest control products.
iv. The applicant or responsible party shall be responsible for educating all landscapers or gardeners on the project site about the IPM program and other BMPs applicable to water quality management of landscaping and gardens. Education shall include written and verbal materials.

b. Trash and recycling containers and storage areas:
The applicant shall use trash and recycling containers and storage areas that, if they are to be located outside or apart from the principal commercial structures, are fully enclosed and water-tight in order to prevent stormwater contact with waste matter which can be a potential source of bacteria, grease, and particulates and suspended solids in runoff, and in order to prevent dispersal by wind and water. Trash container areas must have drainage from adjoining roofs and pavement diverted around the area(s), and must be screened or walled to prevent off-site transport of trash.

c. Structures, hardscape, and Roads:
Runoff from all new and redeveloped surfaces on the site shall be collected and directed through a system of media filter devices and bioswales. The filter elements shall be designed to treat, filter, or infiltrate runoff and a) trap sediment, particulates and other solids and b) remove or mitigate contaminants through filtration and biological uptake. The drainage system shall also be designed to convey and discharge runoff in a non-erosive manner.

d. Education and Training:
Annual verbal and written training of employees, tenants, landscapers, and property managers and other parties responsible for proper functioning of BMPs in commercial development shall be required.
Outdoor drains in the commercial site shall be labeled/stenciled to indicate whether they flow to an on-site treatment device, a storm drain, or the sanitary sewer as appropriate.
Storm drain stenciling (“No Dumping, Drains to Ocean” or equivalent phrase) shall occur at all storm drain inlets in the development.
Informational signs around the commercial establishments for customers and employees/tenants about water quality and the BMPs used on-site shall be provided.
Informational signs around the residential development for homeowners and the public about urban runoff and the BMPs used on-site shall be provided near the detention ponds, at trail heads, and at centralized locations near storm drain inlets.

B. A Water Quality Monitoring Plan shall be submitted designed to characterize and evaluate the potential effects of stormwater and dry weather runoff from the proposed development on receiving waters including the Semeniuk Slough, Santa Ana River, and the Pacific Ocean. The final plan shall be consistent with the requirements of these special conditions. Water quality monitoring for the development shall comply with the following requirements and shall include:

-Baseline water quality data of pre-development conditions shall be collected prior to commencement of construction. The baseline water quality studies shall be sufficient to document background (pre-development) levels of the contaminants that will be analyzed in the ongoing water quality monitoring program.
-Dry weather sampling shall be conducted from the commencement of construction through the time in which the water quality management system required by the final Water Quality Management Plan approved by the Executive Director are constructed and fully operational. Dry weather sampling shall occur on a monthly basis.
-The Water Quality Monitoring Plan shall include a map of the proposed sampling locations.

If monitoring results indicate that incidents are occurring in which applicable water quality standards including, but not limited to, any applicable standards in the California Toxics Rule and the California Ocean Plan, are not being met and/or that recurring incidents are threatening to establish a condition in which applicable water quality standards are not being met, the applicant shall investigate the cause or source of the incidents and/or condition and provide information to the Executive Director demonstrating any incidents and/or resulting condition in which applicable water quality standards have not been met is not the result of the applicant's failure to comply with the terms and conditions of this Permit. If the Executive Director determines otherwise, based on the information generated from the applicant's investigation and all other information available to the Executive Director, corrective actions or remedies shall be required. If remedies or corrective actions constitute development under Section 30106 of the Coastal Act, an amendment to this Permit shall be required, unless the Executive Director determines no such amendment is legally required.

The applicant shall clarify parameters that will "trigger" a reevaluation of trash and debris BMPs in the Water Quality Monitoring Plan.
In addition to construction phase monitoring, post-development monitoring shall be conducted for a minimum period of three (3) years, following completion of development approved by this permit, or beyond three years for as long as necessary to demonstrate to the Executive Director that the water quality management system meets or exceeds the level of treatment required by the water quality management plan. Annual reports and semiannual updates containing data and analytical assessment of data in comparison to any applicable water quality objectives and other criterion specified herein, shall be submitted to the Executive Director of the

Commission and to the Regional Water Quality Control Board for the entire monitoring period.

C. The final Drainage and Runoff Control Plan shall be in conformance with the site/ development plans approved by the Coastal Commission. Any necessary changes to the Coastal Commission approved site/development plans required by a qualified, licensed professional shall be reported to the Executive Director. No changes to the Coastal Commission approved site/development plans shall occur without an amendment to the coastal development permit, unless the Executive Director determines that no amendment is required.

25. Future Development

A. Future Development Within the "Buildable Footprint" - This permit is only for the development described in Coastal Development Permit No. 5-15-2097, which only allows permanent development within the area designated as the "Buildable Footprint" in the "Constraints on Banning Ranch" graphic attached/"Total Constraints Map" (**Exhibit 4**). Except as provided in Public Resources Code section 30610 and applicable regulations, any future development, as defined in PRC section 30106, within that "Buildable Footprint," including, but not limited to, a change in the density or intensity of use land, shall require an amendment to Permit No. 5-15-2097 from the California Coastal Commission or shall require an additional coastal development permit from the California Coastal Commission or from the applicable certified local government.

B. Future Development Outside the "Buildable Footprint," ORA, and OSCA – For all portions of the site that are outside the areas designated as the "Buildable Footprint" and the "Oil Remainder Areas" in the "Constraints on Banning Ranch" graphic/"Total Constraints Map" (**Exhibit 4**), and that are also outside of the OSCA defined in Special Condition 10 (the "Open Space/Conservation Area" condition), the following restrictions and requirements shall apply:

1. No development, as defined in Section 30106 of the Coastal Act, including but not limited to, alteration of landforms, removal of native vegetation or the erection of structures of any type, shall occur unless approved by this Commission as an amendment to this permit.

2. PRIOR TO THE ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall execute and record a deed restriction in a form and content acceptable to the Executive Director, reflecting the above restrictions on development. The recorded document(s) shall include a legal description and corresponding graphic depiction of the legal parcels subject to this permit and a metes and bounds legal description and a corresponding graphic depiction, drawn to scale, of the area subject to this Section B of this condition, prepared by a licensed surveyor based on an on-site inspection of the open space area.

3. The deed restriction shall be recorded free of prior liens and any other encumbrances that the Executive Director determines may affect the enforceability of the restriction.

4. The deed restriction shall run with the land in favor of the People of the State of California, binding successors and assigns of the applicant or landowner in perpetuity. The deed restriction shall not be modified or removed without an amendment to this coastal development permit from the California Coastal Commission.

26. Evidence of Water Service

PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, permittee shall provide written authorization for the review and approval of the Executive Director that adequate water service is available and will be provided to the project by the applicable Municipal Water District.

27. Development Agreement

BY ACCEPTANCE OF THIS PERMIT, the Permittee acknowledges that a subsequent approval by the Coastal Commission is required for any Development Agreement approved by the City of Newport Beach or any other local government.

28. Generic Deed Restriction

PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit to the Executive Director for review and approval documentation demonstrating that the landowner(s) has executed and recorded against the parcel(s) governed by this permit a deed restriction, in a form and content acceptable to the Executive Director: (1) indicating that, pursuant to this permit, the California Coastal Commission has authorized development on the subject property, subject to terms and conditions that restrict the use and enjoyment of that property; and (2) imposing the Special Conditions of this permit as covenants, conditions and restrictions on the use and enjoyment of the Property. The deed restriction shall include a legal description of the entire parcel or parcels governed by this permit. The deed restriction shall also indicate that, in the event of an extinguishment or termination of the deed restriction for any reason, the terms and conditions of this permit shall continue to restrict the use and enjoyment of the subject property so long as either this permit or the development it authorizes, or any part, modification, or amendment thereof, remains in existence on or with respect to the subject property.

29. Traffic Management

A. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the Applicant shall prepare for Executive Director review and approval a Construction Area Traffic Management Plan for the project. The Plan shall be designed by a registered Traffic Engineer. The Traffic Management Plan shall identify construction phasing and address traffic control for any temporary street closures, detours, or other disruptions to traffic circulation and public transit routes. The Plan shall identify the routes that construction vehicles shall use to access the site, the hours of construction traffic, traffic controls and

detours, vehicle staging areas, and parking areas for the Project. Advanced written notice of temporary traffic disruptions shall be provided to emergency service providers and the affected area's businesses and the general public. This notice shall be provided at least two weeks prior to disruptions.

B. The Applicant shall ensure that construction activities requiring more than 16 truck (i.e., multiple axle vehicle) trips per hour on West Coast Highway, such as excavation and concrete pours, shall be prohibited between June 1 and September 1 to avoid traffic conflicts with beach and tourist traffic. At all other times, such activities on West Coast Highway shall be limited to 25 truck (i.e., multiple axle vehicle) trips per hour unless otherwise approved by the City of Newport Beach Traffic Engineer. A staging area shall be designated on site for construction equipment and supplies to be stored during construction. No construction vehicles shall be allowed to stage on off-site roads during the grading and construction period.
C. The Applicant shall implement the City of Newport Beach and City of Costa Mesa transportation improvement mitigation program elements for the Project identified in Table A of MM 4.9-1 and Table C of MM 4.9-2 of the Newport Banning Ranch EIR in accordance with the Applicant's fair-share responsibility for the improvements as identified by the respective cities. The improvements shall be completed during the 60 months immediately after issuance of the Coastal Development Permit. Concept plans depicting these improvements are provided in Appendix F to the Newport Banning Ranch EIR.

For purposes of these conditions, the following terms or phrases shall have the meanings listed below.

"Site Constraints" – the areas where there is limited or no development potential due to the presence of wetlands, ESHA, buffers, cultural deposits, and geologic hazards
"Development" – as defined in Section 30106 of the Coastal Act
"Buildable Areas" – the areas labeled as the "Buildable Footprint Outside of Constraints" on **Exhibit 4** that are located outside of constraints created by the presence of wetlands, ESHA, buffers, and cultural deposits.
"Clean-up" - removal of target materials (which could be concrete, asphalt-like material, oil contaminated soils, or infrastructure such as pipelines, well pads, pumps, and power poles).
"Clean-up target" - materials targeted for clean-up including concrete, asphalt-like material, oil contaminated soils, or infrastructure such as pipelines, well pads, pumps, and power poles
"Materials treatment and processing" - would include bioremediation of oil contaminated soils through their placement, spread, and mixing within delineated cells as well as the crushing and sorting of concrete, asphalt, and asphalt-like materials.
"Stockpiling" is the accumulation and storage of materials.
"Borrow" is the excavation of clean soils for transport and placement as backfill for areas from which oil contaminated soil is removed or use as a clean soil cap layer over disposal pits.
"Disposal" is the placement of treated and tested oil contaminated soil, concrete, asphalt, and asphalt like material in deep excavated pits onsite.