BROAD BEACH GEOLOGIC HAZARD ABATEMENT DISTRICT

REGULAR MEETING AGENDA

Sunday August 4, 2013; 9:00 a.m.

Private Residence-
31330 Broad Beach Road, Malibu, CA 90265

Closed Sessions Matters

Under this item, the GHAD Board shall meet in a closed session to discuss matters pursuant to Government Code Sections 54956.8 and 54956.9 (a).

None.

Regular Session Matters

1) **Call to Order**

2) **Roll Call**

3) **Adoption of Agenda**

4) **Approve Summary of Actions from July 14, 2013 Meeting**

Recommendation: Chair to conduct vote on approving Summary of Actions from July 14, 2013 Meeting. If passed, Chair to sign Summary of Actions.

5) **Ceremonial/Presentations**

None.

6) **Consent Calendar**

None.

7) **Public Hearings**

None.

8) **New Business**

Vacancy on BBGHAD Board of Directors. BBGHAD Board Member Zan Marquis resigned on June 14, 2013. Project Counsel will brief BBGHAD Board on the status of the process to fill the Board position vacated by Board Member Marquis for the remainder of the

current term. Discussion of this item may include consideration of a Board motion and/or resolution to fill the vacant Board Member position. (Project Counsel)

9) Old Business

a. Permitting and Regulatory Process. (Project Counsel and Engineer). Report to include project regulatory status update, including:
(i) Sand Source: Multi-disciplinary update and discussion of permit application documents, budget, and financial issues.
(ii) CCC: Matters to consider include CDP Status.
(iii) SLC & APTR: Status update
(iv) RWQCB and USACE: Permitting update

b. Proposed GHAD Contracting Policy. Discussion of potential adoption of contracting rules. (Project Counsel).

Recommendation: Monitor development of GHAD contracting rules and/or procedures.

10) GHAD Officer Reports

a. Treasurer's Report. (GHAD Treasurer).

b. GHAD Manager Report (GHAD Manager)

11) GHAD Board Member Reports

12) Public Comment - Non-Agenda Items

Communications from the public concerning matters that are not on the agenda but for which the GHAD Board has subject matter jurisdiction. The GHAD Board may not act on non-agendized matters except to refer the matters to staff or schedule the matters for a future agenda.

13) Future Meeting

Next Meeting: September 8, 2013; 9:00 a.m. Location: 31330 Broad Beach Road, Malibu, CA 90265

14) Adjournment

AGENDA ITEM 4

Summary of Actions

BROAD BEACH GEOLOGICAL HAZARD ABATEMENT DISTRICT
REGULAR MEETING
July 14, 2013
31330 Broad Beach Road, Malibu, CA 90265

1. CALL TO ORDER

Chair Karno called the meeting to order at 9:08 a.m.

2. ROLL CALL

PRESENT: Chair Karno, Vice Chair Grossman, Board Member Levitan, Board Member Lotman, and Advisor Goss.

ABSENT: None.

BBGHAD STAFF ALSO PRESENT (not Board Members and not subject to Roll Call): Clerk and Treasurer Barbara Hamm, proposed Clerk and Treasurer Bernadette O'Neill, Engineer Russ Boudreau and Chris Webb, and Project Counsel Ken Ehrlich.

3. ADOPTION OF AGENDA

Project Counsel reported that the meeting Agenda was posted at 5:35 p.m. on Wednesday July 10, 2013 within the boundaries of the BBGHAD. Vice Chair Grossman moved, and Board Member Levitan seconded, the approval of the Agenda. The motion approving the agenda passed 4-0.

4. APPROVED SUMMARY OF ACTIONS FROM MAY 5, 2013 MEETING

Project Counsel noted certain corrections for the Summary of Actions from the June 2013 meeting. Subject to Project Counsel's corrections, Board Member Lotman moved, and Board Member Levitan seconded, the approval of the Summary of Actions from the June 2, 2013 meeting. The motion passed 4-0.

5. CEREMONIAL PRESENTATIONS

None.

6. CONSENT CALENDAR

None.

7. PUBLIC HEARINGS

None.

8. OLD BUSINESS

a. Permitting and Regulatory Process

The Chair recognized Project Counsel, who summarized the contents of recent letters received from the CCC concerning the agency's position that the BBGHAD's CDP application remains incomplete. Project Counsel further reported on the receipt of a draft Traffic Study from Linscott, Law & Greenspan and the use for same with the SLC and CCC. The Chair recognized BBGHAD Engineer Chris Webb, who reported that the CCC has also requested the BBGHAD to complete an angularity test on the proposed inland sand sources. The Chair recognized the Vice Chair, who requested a listing of the items necessary to achieve complete project applications with the CCC and SLC. Project Counsel responded with the following list:

1. Performance Bond- JMBM continues to pursue a bonding company willing to post the $189,500 bond requested by the CCC to secure the removal, if ever ordered, of the eastern 1300' of the revetment;

2. Alternatives Study: Inland Movement of Revetment- The BBGHAD awaits Ensitu's completion of its report;

3. Biological & Dune Studies- The BBGHAD Engineer reported that The Chambers Group will complete its studies by early August 2013;

4. Engineering Documents- BBGHAD Engineer Russ Boudreau reported that the project's as-built plans are under revision to reflect the findings of the Ensitu Report and cannot be completed until certain data is received from Ensitu;

5. Sampling & Analysis of Inland Sand- the CCC and SLC have posed various analyses and specifications for the inland sand, and expects the BBGHAD to document compliance with such requirements and specifications.

The BBGHAD Engineer further reported that BBGHAD staff expects to meet with senior CCC staff to discuss the findings of the Ensitu Report with the intent of avoiding another CCC "incomplete" letter. The Board discussed different alternatives for responding to the CCC's July 12, 2013 "incomplete" letter, including timing, costs, and alternative potential responses. Following the discussion, the Chair directed BBGHAD Engineer to study the alternatives requested by the CCC and critique the alternatives in a frank and straightforward manner based on the findings of the BBGHAD's studies.

The Chair recognized Board Member Levitan, who supported the Chair's direction to the BBGHAD Engineer and added that the permitting process should not be further delayed by the revetment alignment issue. The Chair recognized Board Member Lotman, who stated that the BBGHAD should complete the necessary analyses now and complete its applications as quickly as possible. The Chair then summarized the Board's direction to BBGHAD staff as follows: (a) facilitate the completion of the Ensitu Report to the BBGHAD's specifications as quickly as possible, (b) ensure that the Ensitu Report clearly specifies the complete bases for its conclusions, (c) ensure that the Ensitu Report addresses the alternatives suggested by the CCC, and (d) where applicable, the Ensitu Report must specify which alternative(s) are favored and disfavored, explaining the basis for each position/conclusion.

The Chair recognized the Vice Chair, who asked for a list of the specific items referenced in the SLC's most recent "incomplete" letter. The Chair recognized Project Counsel, who stated that the primary incomplete items in the SLC application are: inland sand sampling and analysis, traffic studies and analysis, air emissions analysis, and lease-related issues.

The Chair directed BBGHAD staff to complete the analyses required by the CCC and SLC as quickly as possible.

b. Proposed GHAD Contracting Policy

No report.

9. GHAD OFFICER REPORTS

a. Treasurer Report

The BBGHAD Treasurer reported that, as of June 30, 2013, the BBGHAD had cash on hand of $1,109,499. The Treasurer also reported that, according to the property tax rolls, the BBGHAD should be paid $3,287,674 in yearly assessments. The BBGHAD has collected a total of $3,193,521—a difference of $94,153. According to the BBGHAD's calculations, seven (7) BBGHAD owners have not paid their yearly property taxes with a net amount owing of $62,053. The BBGHAD Treasurer reported that the BBGHAD Manager is investigating the $32,100 difference between the County property tax rolls and the BBGHAD records relating to assessments currently owing.

The Board discussed the potential to separate the BBGHAD accounts such that each would be 100% insured by the federal government. However, after consideration, the Chair asserted that, in light of the BBGHAD's existing business relationship with City National Bank, the scant likelihood that City National would become insolvent in the foreseeable future, current interest rate structure, and other factors, the BBGHAD would maintain its current banking relationship and account structure.

b. BBGHAD Manager Report

None.

10. NEW BUSINESS

a. Status Update on Filling Board of Directors Vacancy. The Chair recognized Project Counsel, who reported that Board Member Marquis resigned on June 14, 2013, and the BBGHAD has followed the statutory process for filling the vacant Board Member position. Notices of Vacancy were posted on July 10, 2013 in accordance with Government Code § 1780 and applications are due August 1, 2013. The Board discussed the geographic area within the BBGHAD from which a Board Member would be desired and other matters relating to the process.

MOTION: The Vice Chair moved that the Board adopt Resolution No. 2013/01. Board Member Levitan seconded the motion. The Chair recognized the Vice Chair, who stated

that Zan Marquis' contributions to the Board have been incredible, and impossible to quantify. The Vice Chair expressed his personal thanks, and wishes that Mr. Marquis remain involved with the BBGHAD to the extent possible. The Chair stated that the entire Board echoes the Vice Chair's sentiments, and owes a huge debt of gratitude to Mr. Marquis for his tireless service. The Chair stated that it remains his intent to retain Mr. Marquis' involvement in the BBGHAD in a mutually acceptable form, and called the question on the motion. The motion passed 4-0.

b. BBGHAD Treasurer/Clerk Position; Retention of Zan Marquis as Consultant. The Chair recognized Project Counsel, who stated that, in light of Board Member Marquis' resignation and Barbara Hamm's employment by Mr. Marquis' company, it has been recommended to the Board that it replace Barbara Hamm as BBGHAD Clerk and Treasurer. Project Counsel reported that Ms. Hamm agrees with the proposition, and that Bernadette O'Neill, a Senior Receivables Manager at Jeffer Mangels Butler & Mitchell LLP, has expressed interest in the position. If appointed, Ms. O'Neill would serve in concert with her present position. Project Counsel further stated that an hourly compensation amount has been discussed with Ms. O'Neill and approved by the Chair. The Chair recognized the Vice Chair, who stated that he has reviewed and approved Ms. O'Neill's resume and the results of a background check completed on Ms. O'Neill.

MOTION: The Vice Chair stated his approval of Ms. O'Neill to replace Ms. Hamm and concurrent desire to retain Mr. Marquis as a consultant to the BBGHAD. The Vice Chair moved that the Board adopt Resolution No. 2013/02. The Chair recognized Board Member Lotman, who seconded the motion. On behalf of the entire Board, the Chair thanked Barbara Hamm for her countless hours of service to the BBGHAD Board, the BBGHAD and its constituents, and to the Broad Beach community in general. The motion passed 4-0.

11. BBGHAD BOARD MEMBER REPORTS

Board Member Levitan – Board Member Levitan commented that *Vanity Fair* has published an article on beach erosion, and response to same, focusing on Broad Beach and Nantucket. Board Member Levitan expressed concern over the article's quotes from CCC Coastal Engineer Lesley Ewing and Nancy Hastings of Surfrider Foundation. Board Member Levitan expressed his strong desire that the BBGHAD use our empirical technical studies and findings to publicly refute the Ewing and Hastings quotes, and added that the BBGHAD should publicize our scientific/technical findings.

No other reports were presented.

12. PUBLIC COMMENT: NON-AGENDA ITEMS

None.

13. FUTURE MEETING

The next BBGHAD Board Meeting will be on August 4, 2013 at 9:00 a.m. at a private residence located at 31330 Broad Beach Road. The Chair also mentioned that the following BBGHAD Board Meeting will likely occur on September 8, 2013.

14. ADJOURNMENT

The Vice Chair moved for adjournment, with a second from Board Member Lotman. The motion passed 4-0. The meeting adjourned at 11:40 a.m.

Approved and adopted by the Broad Beach GHAD Board on August ____, 2013.

_____
NORTON KARNO, Chair

ATTEST:

_____
BERNADETTE O'NEILL, Clerk

AGENDA ITEM 9a

STATE OF CALIFORNIA - NATURAL RESOURCES AGENCY EDMOND G. BROWN, JR, *Governor*

CALIFORNIA COASTAL COMMISSION
SOUTH CENTRAL COAST AREA
89 SOUTH CALIFORNIA ST., SUITE 200
VENTURA, CA 93001
(805) 585-1800

July 12, 2013

Broad Beach Geological Hazard Abatement District
Attn: Mr. Zan Marquis
29169 Heathercliff Rd. Suite 212
Malibu, CA
90265

Cc: Mr. Ken Ehrich
1900 Avenue of the Stars, 7th floor
Los Angeles, CA
90067

Chris Webb, Tonia McMahon, Russ Boudreau, Kim Garvey
Moffat & Nichol
3780 Kilroy Airport Way
Long Beach, CA
90806

RE: Coastal Development Permit Application 4-12-043 (Broad Beach)

The following is in response to your recent submittal concerning the proposed shoreline protective work, beach nourishment and related dune habitat restoration at Broad Beach, Malibu. Your submittal of new materials included a Sampling and Analysis Plan for Inland sand source sites received by CCC staff on 7/9/13. However, the submitted sampling plan did not address any of the filing requirements in the CCC filing status letter dated 2/8/13 and, as such, based on our review of the information, the application *remains incomplete* for the purposes of filing and scheduling this project for a Commission agenda. Therefore, please note that CCC filing status letter dated 2/8/2013 is still applicable to the subject CDP application and is attached to this letter

Additionally, you have indicated that you are no longer contemplating the use of off shore sand source donor areas as part of the subject project. If the BBGHAD intends to modify the proposed project description to include the use of exclusively inland sand source sites to facilitate the proposed beach nourishment and dune restoration components of the project, additional information will be required as part of your CDP application. Such a modification to the proposed project will require the BBGHAD to submit specific information detailing the proposed change. Until we receive a complete description of the proposed project modification we are unable to identify all informational requirements, however, as a courtesy, we have included preliminary comments which include, but are not limited to, the items contained in Section I and Section II of this letter.

I. Inland Sand Source Sampling.

The sampling and analysis plan submitted to CCC staff on 7/9/13 indicated that the BBGHAD may be proposing to exclusively use inland quarry sourced sand. However, the sampling and analysis plan submitted was insufficient to address our filing requirements for sand source testing. As such, at a minimum, please submit a sampling and analysis plan for the proposed sand source sites which satisfies the following criteria:

(1) Sediment Sampling – Core samples shall be collected throughout the source area, with one (1) sample per 0.5 acres, and a minimum of five (5) samples per source site for contaminant testing, grain size and angularity testing. Compositing of the samples to fewer than five samples per source area is not allowed. Borings shall extend to the maximum anticipated excavation depth.

(2) Grain Size – Grain size analyses shall be conducted on each sample. Material suitable for the project shall be consistent with the following:

i. Samples shall demonstrate that 75% or more of the material is coarse grained (retained on a Standard U.S. Sieve Size No. 200).

ii. Of the coarse grained material fraction (retained on a Standard U.S. Sieve Size No. 200), no more than 5% shall consist of gravel or pebble-sized material (2 mm – 64 mm) and no more than 0.5% of the source material shall consist of cobble-sized material or larger (>64 mm). To achieve the desired gradation of material, the oversize source may be screened out or mechanically sorted.

iii. Source material that does not meet these grain size requirements shall not be used for beach replenishment or dune restoration.

iv. Grain size for material to be used in the dunes should be compared only with upper beach material and not the composite grain size distribution for the full shoreline profile.

v. Results from an angularity test on the inland sand source samples and native Broad Beach sand, comparing the angularity differences between the two samples.

(3) Contaminants -- If the sediment sample(s) exceed Effects Range Medium (ER-M) contaminant threshold levels according to the NOAA Screening Quick Reference Tables (SQUIRTs), these materials shall not be used for surfzone disposal.

(4) Debris Content – The monitor shall conduct a visual inspection of all stockpiled sediments excavated by bucket/dragline desilting/excavation operations that meet the grain size thresholds and are not determined to be contaminated shall be visually inspected prior to transport to Broad Beach for use within the subject project area for beach nourishment and dune restoration purposes. . These inspections shall determine whether or not debris such as trash, woody debris, plant material, charcoal or pockets of discolored sediment is present within the stockpiled material. If present, all such debris shall be separated from the sand material prior to transport to Broad Beach (by mechanical screening, manual removal or other means) and taken to a permitted disposal site authorized to receive such material.

The analysis shall include confirmation by the U.S. Army Corps of Engineers and California Regional Water Quality Control Board that the material proposed for beach replenishment meets the minimum criteria necessary for use within the subject project area for beach nourishment and dune restoration purposes. Additionally, the details of the sampling and testing methodologies need to be supplied.

II. Potential Inland Sand Source Sites.

As stated above, if the BBGHAD intends to modify the proposed project description to include the use of exclusively inland sand source sites to facilitate the proposed beach nourishment and dune restoration components of the project, additional information will be required as part of your CDP application. Until we receive a complete description of the proposed project modification we are unable to identify all informational requirements, however, as a courtesy, we have included the following preliminary comments which include, but are not limited to, the items below:

(a) An analysis of how the physical and chemical composition of the inland quarry sourced sand proposed for use to construct the dunes will influence/impact the success of native dune restoration and the general beach ecology. Provide details and evaluate all associated potential impacts on the beach ecology and the proposed dune restoration program resulting from the use of inland quarry sourced sand. Also, please provide a final proposed plan with measures to address this component of the proposed project.

(b) Project plans, project descriptions, documents and technical analyses that address the use of inland sand for beach nourishment purposes within the subject project area. To include, at a minimum, the following requirements:

i. A specific description of the proposed use of inland sand source sites including, but not limited, to the following: The method of sand transportation, the route(s) for sand transportation, a transportation schedule detailing the amount of sand proposed for transport each day over a specific period of time, the deposition and use of the proposed inland quarry sourced sand, the total amount of inland quarry sourced sand, and the final proposed locations the inland sand will be sourced from.
ii. An updated project valuation assessment which includes the cost for the use, transportation and deposition of the inland sourced quarry sand.
iii. Submittal of a revised filing fee based on an accurate project valuation, which includes the use of the inland sourced quarry sand as part of the subject project costs.
iv. Evidence that all required permits for the use, transportation and deposition of the inland sourced quarry sand onto the subject project area have been received by the BBGHAD.
v. A revised full size plan set which incorporates the deposition footprint of the sand, as well as the construction storage and staging areas.
vi. An analysis of the air quality impacts resulting from the proposed use, transportation, and deposition of the inland sourced sand material including a technical analysis which specifically identifies and analyzes the amounts of criteria pollutants and greenhouse gasses that will be emitted as part of the proposed project.
vii. An analysis of public access impacts resulting from the transportation, and deposition of the inland sourced sand material including a technical analysis which identifies the proposed transportation routes and identifies the potential traffic/public access impacts resulting from the subject truck routes. The analysis should also identify potential alternatives which would result in avoidance, minimization or mitigation measures which would avoid or reduce impacts to public access resulting from the use, transportation, and deposition of the inland sourced quarry sand.

viii. An engineering technical analysis detailing, at a minimum, the shoreline erosion patterns, beach topography, and shoreline profile resulting from the use of the proposed inland sourced quarry sand.

ix. Equilibrium profiles for the existing beach material and for the coarser inland sourced quarry material to determine whether the coarser material will result in a steeper beach profile, and if so, whether this could significantly impact public beach access or beach/dune ecology.

x. An alternative analyzing the feasibility of utilizing offshore sand source site(s) to facilitate the beach nourishment component of the proposed project. This analysis should include a quantitative and qualitative description of the impacts to coastal resources resulting from this alternative. As part of this alternative analysis please include an analysis of the habitat impacts that would occur at the sand nourishment donor sites as a result of the long-term management of the proposed Broad Beach shoreline, including recurrent sand dredging operations. The analysis should include, but not be limited to an analysis of the sand transport and beach changes in the vicinity of the donor site, information regarding the estimated reoccurrence of beach nourishment activities (i.e would the same donor site be used after the initial dredging operation if additional beach nourishment becomes necessary in the future? If so, how often), and any impacts to the existing habitats at the donor sites, specifically addressing the estimated reach of the turbidity plume, the habitat and organisms that will be affected by the plume, the possible length of time the plume would remain, etc.

Additionally, the basis for the fast benthic recovery rate should be clarified and should consider the impacts of dredging on the entire benthic soft-bottom community including infaunal and epifaunal species such as tube-building (tubicolous) polychaete worms, clams, snails, crabs, sea cucumbers, sand dollars, sea pens and sea pansies, and peanut and acorn worms. As these species are generally relatively long-lived (5-25 years) and provide an indication of long-term environmental conditions in an area (e.g., surge and current intensity, nutrition regime, sediment texture, and nutrient overload or eutrophication please provide additional quantitative analysis of their anticipated recovery at each proposed donor site based on current biological surveys and data.

Depending on what additional information is submitted in response to this letter, we may need more clarification and possibly more information as a result of our review of the information to schedule the proposed project for Commission action. Should you need any clarification or have any questions regarding the list of items above, please give me a call.

Sincerely,

Melissa Ahrens
Coastal Program Analyst

STATE OF CALIFORNIA - NATURAL RESOURCES AGENCY EDMUND G. BROWN, JR, *Governor*

CALIFORNIA COASTAL COMMISSION
SOUTH CENTRAL COAST AREA
89 SOUTH CALIFORNIA ST., SUITE 200
VENTURA, CA 93001
(805) 585-1800

February 8, 2013

Broad Beach Geological Hazard Abatement District
Attn: Mr. Zan Marquis
29169 Heathercliff Rd. Suite 212
Malibu, CA
90265

Cc: Mr. Ken Ehrich
1900 Avenue of the Stars, 7th floor
Los Angeles, CA
90067

Chris Webb, Tonia McMahon, Russ Boudreau, Kim Garvey
Moffat & Nichol
3780 Kilroy Airport Way
Long Beach, CA
90806

RE: Coastal Development Permit Application 4-12-043 (Broad Beach)

The following is in response to your recent submittal concerning the proposed shoreline protective work, beach nourishment and related dune habitat restoration at Broad Beach, Malibu. Your submittal, the bulk of which was received by CCC staff on 1/9/13, included some materials responsive to our September 28, 2012 letter notifying you that the above-referenced application was incomplete. However, although some of the Commission's outstanding information and document requirements have now been submitted, based on our review of the information, the application *remains incomplete* for the purposes of filing and scheduling this project for a Commission agenda. We are unable to file and schedule the application for a Commission meeting until the following information is provided:

Administrative

1. Filing Fee. Please note that the submitted filing fee of $40,000 was not based on the current filing fee schedule. For your information please see the attached filing fee schedule to help determine the correct filing fee amount. However, from the submitted project materials it is still unclear what the cost of the proposed development would be. The estimated cost of development submitted in your response letter dated 12/21/12 indicates that the entire project would cost 42.17 Million dollars. This estimate now includes the total cost of construction of the existing temporary emergency rock revetment, the placement of existing sandbags/sandbag wall and sections of exiting unpermitted rock revetment. If the permanent placement of the emergency rock revetment (permitted for temporary placement in emergency coastal development permit 4-10-003-G) and other existing unpermitted development is to be included as a component of your proposed project, please provide detailed evidence regarding the final cost of such developments, including but not limited to the

cost of materials, construction, consulting, and engineering involved in placement of the emergency revetment. Based on that revised cost calculation, please submit the revised, correct filing fee based on current fee schedule and complete cost estimate including all components of proposed project

In your incomplete response letter dated 8/31/12, you stated that you are now seeking after the fact approval of all existing unpermitted rock revetments, and existing unpermitted sandbags as part of the overall project. As such, please revise and clarify all project descriptions, documents and technical analyses to include these proposed project components. Also, please note that when after-the-fact authorization is requested for existing unpermitted development, additional fees for after-the-fact authorization will apply pursuant to the correct Filing Fee Schedule, attached for your convenience.

2. Cost Valuation. The submitted cost valuation for the project is incorrect and does not address all proposed project components, specifically including the cost of preparation of the APTR document and other consulting costs associated with the proposed project (see Cal. Code Regs., tit. 14 ("14 CCR"), § 13055(a)(5)(B)(2)). Please submit a complete cost valuation breakdown, including specific costs for all consulting work, construction elements, and long term management and maintenance operations for the proposed project prepared by qualified contractor.

3. Proof of the applicant's legal interest in the property. We are in receipt of the adopted BBGHAD Plan of Control; however, this document does not provide evidence that BBGHAD has legal ability to implement all components of the project (including, but not limited to, construction of rock revetment, sand bags, beach nourishment, and dune habitat restoration). Please provide evidence that BBGHAD has legal ability to implement all components of the proposed project throughout the proposed term of the project, including authorization from all persons or entities which have an ownership interest in the property superior to that of the applicant must be provided (including, but not limited to, owner authorization for all areas of the project that would be located on private lands, State Lands Lease Agreement for all portions of the project located on Public Trust Lands, and evidence from the appropriate managing entity for offshore donor sites granting approval for all proposed dredging/sediment transport operations).

Project Description and Plans

5. Project Description

The Project Description located in your CDP application and in Attachment C fails to include a concise and clear description of the main project components. Please submit a project description that adequately and clearly states the separate project components including but not limited to the construction work, methodology and quantities of materials necessary for each separate project component, including, but not limited to, the final proposed sand dredging/source locations and final proposed long term beach management plans for backpassing and beach nourishment.

i) *Existing Unpermitted Development.* Based on all available information, we have confirmed that unpermitted development has occurred on the subject site, including but not limited to the construction of rock revetment in 1998 on several parcels within the project reach and the installation/retention of geofabric sandbags (including both new unpermitted sand bags on several properties and the failure to remove sand bags which were temporarily authorized by emergency

permits by the City of Malibu for a period not to exceed 90 day). Please either provide revised project information including but not limited to full complete plan sets, project descriptions, technical analysis, and any necessary approvals for the existing unpermitted development proposed to be retained as part of the subject CDP application. For locations where sand bags have been covered by revetment, please provide the engineering analysis to show how the sand bags are important to the design, and how they improve stability over the traditional design of revetments. Additionally, please identify and quantify the amounts of grading, sand sculpting and beach sand berms that were associated with the construction of the subject sandbag/geofabric revetments. If any existing unpermitted development is not proposed for after the fact approval or planned for removal please submit evidence that the subject development(s) received the required coastal development permit or revise/clarify project description to either: (a) remove the unpermitted development or (b) request after-the-fact authorization, or (c) a combination of these two actions. Are the existing unpermitted sections of rock revetment located on Broad Beach (including the unauthorized revetments constructed in 1998 that appear to be located in the same location as the new proposed revetment) that were not approved through a Coastal Development Permit or through the Emergency Permit 4-10-003-G proposed to be retained in their existing locations as part of the proposed project? If so, please specifically include the after the fact authorization of the unpermitted rock revetment sections in the project description and include detailed planned sets showing the footprint, location, and elevation of all revetment sections. For further information about the exact location of all unpermitted revetment sections please contact the Enforcement staff in our Ventura office.

ii) *Project Schedule.* Please provide a construction schedule for the proposed project detailing all project components, their necessary storage and staging requirements, and their length of operation. Indicate the time periods throughout the year(s) where construction would be scheduled to occur, to include all beach replenishment operations, backpassing or any other longer term components of the proposed project.

iii) *Other Permits.* Please provide documentation of all necessary permits for the proposed project including all permits and approvals necessary to conduct the proposed sand dredging and replenishment operations including authorization from the City of LA for dredging operations at the proposed Dockweiler site or other final proposed dredging/sand source sites. Show preliminary or final approvals by all other necessary government agencies (City of Malibu, Los Angeles County, U.S. Army Corps of Engineers, Regional Water Quality Control Board, Calif. Dept. Fish & Game, and Caltrans). Specifically, provide evidence that State Lands Commission has issued a lease agreement and authorization for all project components including but not limited to permanent placement of revetment, beach nourishment including placement/dredging of sand at each donor/receiver site(s). Additionally, as the subject project site is located within an Area of Specific Biological Significance (ASBS) and a State Marine Conservation Area (SMCA), please provide evidence that all components of the proposed project are consistent with the requirements of the Water Quality Control Boards designated ASBS guidelines and regulations as well as the California Department of Fish and Game's State Marine Conservation Area guidelines and regulations.

iv) "Approval-in-Concept" form completed by the City or County Planning department or other responsible department.

v) *Performance Bond.* In addition, Emergency CDP 4-10-003-G required the applicant to post a performance bond (within 90 days of the date of the emergency permit) equal to the value of the

cost for the complete removal of emergency structure and related materials from the eastern portion of the beach (approximately 1300 linear ft. of rock revetment & sand bags between 30928 Broad Beach Road and 30760 Broad Beach Road) and restoration of the beach to its approximate natural elevations. To date, that condition of the emergency permit has still not been complied with. Please submit evidence that applicant has complied with this condition.

6. As-Built Plans. Please submit two sets of full-size, **final and complete "As-Built"** plans of all existing shore protection (revetment, sand bags, unpermitted development to be removed or requested to be retained after-the-fact, etc.) with representative cross-sections prepared by a registered engineer. The plan set dated 10/30/12 and submitted on 1/9/13 identifies most of the existing as-built sandbags and previously unpermitted rock revetments as 'not subject of CDP', however, the submitted project description seems to seeks after the fact approval of these sandbag and unpermitted revetment developments. Additionally, the subject As-Built plan set shows seawall segments that are not part of the proposed project as described in the Applicant's response package dated 1/9/13. Please clarify what unpermitted sections of seawalls, sandbags, or revetments are proposed for after the fact authorization as part of the subject CDP application and revise the As-Built plans to reflect this aspect of the proposed project if necessary. As such, the As-Built plan set needs to be revised to incorporate all development proposed for after the fact approval, as described in the proposed project description.

The full size plan set must show the project footprint in relation to the applicants property boundaries (including surveyed benchmarks), all septic systems, all recently surveyed Mean High Tide Lines (winter and Summer) including the Mean High Tide Line recently surveyed by the State Lands Commission, the Wave Uprush Limit Line, all existing residential structures (including decks and patios), and show all existing easements and deed restricted areas on each parcel. The plan set must also show the location of the as-built temporary emergency rock revetment in relation to the above referenced plan elements for all legal properties included in the project application.

7. Project Plans

(i) Project plans dated 12/20/12 submitted on 1/9/13 were incomplete and failed to show all proposed development, specifically including all backpassing and adaptive sand management activities, and full dune restoration and associated private accessway plans. Additionally, the submitted plans dated 11/21/12 and 12/20/12 only included plan sets for some of the project alternatives as outlined in the APTR document and the revised Coastal engineering Report, which are intended to be used as the applicant's alternatives analysis as stated in the BBGHAD's response letter dated December 21, 2012. The subject alternatives analyzed in the APTR document are: (1) Inland relocation of properly engineered revetment landward of 2010 SLC surveyed MHTL, beach nourishment, and dune restoration; (2) Landward relocation of properly engineered revetment with beach nourishment and dune restoration; (3) Replacement of revetment with landward-located seawall with beach nourishment and dune restoration; (4) Lower levels of sand importation with long term placement of existing emergency revetment; (5) Removal of the emergency revetment and lower levels of beach nourishment and dune restoration; (6) Landward relocation of properly engineered revetment with partial removal of the downcoast [eastern] Portion of the Revetment; and (7) Alternative beach nourishment and sand source sites. Please submit two sets, of full-size, detailed (approximately 60% complete) plans of all seven (7) proposed alternatives (see Section 5 for more details about alternatives), with representative cross-sections prepared by a registered engineer. The full size plan sets must show the alternative project footprints in relation to the

applicants property boundaries (including surveyed benchmarks), all septic systems, recently surveyed Mean High Tide Lines (winter and Summer), the 'As Built' Wave Uprush Limit Line for alternatives 1-6, all existing residential structures (including decks and patios) and private property boundaries, landscaping, sensitive dune habitat areas, and show all existing easements and deed restricted areas on each parcel. The plan sets must also show the location of the as-built temporary emergency rock revetment in relation to the above referenced plan elements for all legal properties included in the project application. Indicate on the plans the existing revetment location and the proposed locations for the stock pile and staging areas, proposed sand nourishment extent, the proposed backpassing activities and proposed 'dune restoration' area. Drawing must be to scale with dimensions shown. Plans must be approved by the City or County Planning Department and stamped "Approval-in-Concept." The submitted 60% plan set dated 12/20/12 does not have any Approval in Concept from the City of Malibu, is missing some of the proposed project components, and does not include full plans of all the proposed project alternatives, this filing requirement is still incomplete. We need two (2) more set(s).

Also, please note that for alternatives number (4), (5), and (6) above the associated plan sets need to show the wave uprush limit line calculated with the proposed alternative in place.

(ii) Please submit two set(s) of detailed final grading with cross-sections and quantitative breakdown of grading amounts (cubic yards of cut and fill) for all areas where sand/fill placement will occur. Submitted plans state that they are in draft form only and not final. Plans must be to scale and prepared by a registered engineer.

(iii) Please provide 8.5x11 inch copies of tall plans.

Technical Reports and Analyses

Biology

Please submit a biological analysis, prepared by a qualified biologist with experience in beach and marine ecology, identifying the baseline conditions of the site prior to installation of any of the proposed development (emergency revetment, sandbag/geofabric revetments and any associated grading and beach sculpting, unpermitted revetment segments etc.) and a complete analysis of habitat impacts resulting from the proposed project, including the permanent authorization and the initial construction of the rock revetment, beach nourishment, etc which specifically please address the following:

8. Temporary Emergency Revetment, Sandbags, Existing Unpermitted Revetment Sections.

(a) As the permanent retention of the emergency revetment, unpermitted sandbags, and unpermitted revetment sections are all now included in the subject proposed project, please submit information and analysis documenting the baseline conditions that existed on Broad Beach prior to construction of the temporary emergency rock revetment, sandbag walls, and existing unpermitted revetment sections including but not limited to the following habitats: kelp/eelgrass/surfgrass, rocky reef, shallow soft bottom subtidal, sandy beach (upper, mid, lower zones – epifauna and infauna for each zone including shorebirds), wrack, rocky intertidal, coastal strand, southern foredune, and Trancas estuary and creek mouth. Include:

- Available species composition (richness and diversity) and density data for the above specified respective habitats obtained from peer reviewed literature, gray literature, biology reports, and/or environmental impact reports. The Applicant's response package dated 1/9/13 did not include a qualitative or quantitative analysis for all of the specified habitat types. As such, please submit a qualitative and quantitative analysis of the historic habitat conditions on Broad Beach prior to the installation of the emergency rock revetment. As part of this analysis please provide a rational for the findings and conclusions, including a detailed description of the methods WRA used, in addition to the list of photographs, to estimate the pre-construction extent of the Broad Beach dune ecosystem. Additionally, please clarify what the 'development escarpment' referenced in the Applicant's response letter is intended to describe, as it is unclear from the project materials submitted what this would be describing.
- Documentation, habitat use, and/or locations of any sensitive species including but not limited to the endemic beach isopod, *Tylos puctatus*, pismo clam, *Tivela stultorum*, and black abalone, *Haliotis cracherodii*.
- Associated figures, data, graphs, charts and photographs.

(b) The Applicant's response materials dated 1/9/13 do not provide a quantitative analysis of the habitat impacts that occurred from the construction of the emergency rock revetment. Therefore, as part of the description of the habitat impacts that resulted from construction of the existing temporary emergency rock revetment please quantify the square footage or acreage of habitat impacts including but not limited to impacts to the following habitats: kelp/eelgrass/surfgrass, rocky reef, shallow soft bottom subtidal, sandy beach (upper, mid, lower zones – epifauna and infauna for each zone including shorebirds), wrack, rocky intertidal, coastal strand, southern foredune, and Trancas estuary and creek mouth. In this analysis please include the impacts that resulted from all activities related to construction of the temporary emergency rock revetment including but not limited to any habitat impacts that resulted from storage and staging, beach sand sculpting, inundation/removal/degradation of any existing dune habitats, water pollution and runoff from construction activities/equipment. The applicant's response letter dated 12/21/12 states that "[...] It is not possible to provide a thorough analysis of the impacts associated with the installation of the existing emergency revetment" (pg. 14). However, the APTR document referenced in the applicant's response letter dated 12/21/12 states that permanent impacts to approximately 3 acres of sandy beach and native dune habitat, designated as ESHA in the Malibu LCP, occurred from the construction and retention for over a 3 year time period of the emergency rock revetment. Please clarify this discrepancy in your submitted project documents and identify the correct acreage of habitat impacts that resulted from the construction and retention of the existing emergency rock revetment now proposed for permanent authorization.

(c) Please describe the habitat impacts on kelp/eelgrass/surfgrass, rocky reef, shallow soft bottom subtidal, sandy beach (upper, mid, lower zones - epifauna and infauna for each zone including shorebirds), wrack, rocky intertidal, coastal strand, southern foredune, or Trancas estuary and creek mouth habitats impacts relating to the construction, formation and placement of any and all plastic sandbags along the shoreline area that occurred concurrently and prior to the emergency revetment construction. Please address and provide a quantitative analysis of the sand sculpting that occurred (including all bulldozing activities on the beach) to facilitate and form the sandbag walls now proposed for permanent retention as part of the subject project. In your response letter dated 12/21/12 it is stated that sandbag construction, placement and long term retention resulted in

impacts to mid-intertidal habitat, sandy beach habitat, and dune habitat. As such, please include a quantitative analysis of such habitat impacts resulted from all construction, formation and placement activities that were associated with the sandbags/sandbag walls that are now proposed for permanent authorization as part of the subject project proposal.

(d) Please describe the anticipated long-term effects on kelp/eelgrass/surfgrass, rocky reef, shallow soft bottom subtidal, sandy beach (upper, mid, lower zones - epifauna and infauna for each zone including shorebirds), wrack, rocky intertidal, coastal strand, southern foredune, and Trancas estuary and creek mouth habitats resulting from permanent authorization of the rock revetment, the unpermitted sandbags, and the unpermitted revetment sections. Including but not limited to the following:

- An analysis of all the potential scenarios of beach conditions that could occur over time, including detailed quantitative information regarding any habitat impacts that could occur if the beach nourishment/dune restoration and revetment structure all fail to succeed individually or collectively. Specifically, please address through a quantification analysis the potential impacts to dune habitat that could occur if the beach nourishment/dune restoration fails and the revetment becomes exposed or if future beach replenishment does not occur, including but not limited to the anticipated impacts resulting from extreme storm events, sea level rise and wave overtopping.
- The Applicant's response package dated 1/9/13 did not adequately address the habitat impacts that will occur with long term retention of the emergency revetment. It is estimated in the Applicant's response materials that the existing emergency revetment proposed for permanent authorization occupies approximately 3 acres of existing dune habitat, sandy beach, and mid-intertidal habitat areas. These habitat impacts were not addressed in the applicant's response dated 1/9/13. As such, as part of the CDP application the applicant still needs to submit an analysis of the habitat impacts that will occur with the permanent retention of all existing unpermitted sandbags that are proposed as part of the project, including a quantitative analysis of such habitat impacts and specifically addressing the habitat impacts that could result from the deterioration of the sandbag fabric and its ongoing release into the beach and marine environment.

9. Proposed Beach Nourishment

(a) Please conduct comprehensive and quantitative surveys (in summer and winter) to accurately characterize the existing seasonal baseline conditions of all Broad Beach habitats, including but not limited to:

- Surveys that enable accurate mapping of the current aerial extent of kelp/eelgrass/surfgrass, rocky reef, shallow soft bottom subtidal, rocky intertidal, sandy beach, wrack, and coastal strand and dune habitats at maximum low tide and maximum high tide in spring or summer. As the Applicants response package dated 1/9/13 only included surveys from the winter season, quantitative spring or summer surveys still need to be submitted in order to provide a seasonal comparison.
- Quantitative surveys in summer and winter (transects, quadrats, cores, photo plots, etc. as necessary) that accurately characterize the community composition (species distribution and density) of kelp/eelgrass/surfgrass, rocky reef, sandy beach (upper, mid, lower zones -- epifauna and infauna for each zone including shorebirds), wrack, rocky intertidal, coastal strand, southern foredune, and Trancas estuary and creek mouth habitats. In order to ensure

that the respective sampling designs are adequate to accurately characterize each respective habitat, please produce species area curves for each sampling method used. An adequate number of samples is indicated by the point at which the curve begins to level off and the probability of encountering new species declines. As part of the applicant's CDP application we still need to receive spring surveys for the above referenced habitats as well as winter and spring quantitative surveys of the existing dune habitat.

(b) Provide an associated analysis of the habitat impacts to kelp/eelgrass/surfgrass, rocky reef, shallow soft bottom subtidal, sandy beach (upper, mid, lower zones – epifauna and infauna for each zone including shorebirds), wrack, rocky intertidal, coastal strand, southern foredunes, and Trancas estuary and creek mouth habitats associated with the proposed beach nourishment element of the project including but not limited to noise, timing, sand placement, sand depth, associated turbidity plume, and associated construction storage and staging. The analysis should include but not be limited to:

- Figures illustrating the extent and depth each affected habitat will be covered. Use planar images and cross-sections to show burial at different stretches of coastal line (not only does habitat structure differ from the western most portion of the project site to the eastern most portion of the project site, but the proposed project also uses different slopes and beach widths along the length of the site). Include diagrams of the projected turbidity plumes and their estimated habitat reach. The submitted cross section graphs in Exhibit I for the Applicant's response package dated 1/9/13 adequately show the variations in seasonal sand coverage compared with the proposed project for transect 412, however, cross sections and planar images still need to be provided for identified transects 408, 409, 410, and 411, along with two (2) additional transects located within 'Reach A' and 'Reach B', as identified in the applicant's project description Specifically, because the existing location of Transect 412 and 411 do not adequately address sand trends for 'Reach A' or 'Reach B', at least two (2) additional transects need to be identified in both 'Reach A' and 'Reach B'. After these four (4) additional transects are identified and established, cross sections/and planar images for each new transect need to be submitted to illustrate the seasonal extent and depth of coverage determined for the proposed project and the 'No project' baseline conditions. Additionally the cross sections/graphs need to include the elevations and location of any exposed rocky intertidal, reefs or boulder fields in this segment of the beach in relation to the seasonal sand trends/coverage. To provide adequate interpretation of these cross sections and planar images please submit an analysis and discussion of the data used for their compilation. Furthermore, please note that the submitted cross sections/planar images included in Exhibit I have errors. Specifically, the dashed lines identified in the key/legend are not represented on the corresponding cross sections. Please revise the key/legends and cross section/planar images so that each item shown on the cross section/planar image is distinct and identifiable.
- Locations of any proposed pipelines and an evaluation of their possible impacts on the surrounding habitat. Potential proposed locations of pipelines are shown on the submitted plan set, however, no final proposed pipeline alignments are provided and no associated impact evaluation is included in the project materials provided with the Applicant's response dated 1/9/13. As such, please submit additional information to address this project component.
- Short and long-term description and impact analysis of habitat type conversions that will occur as a result of the proposed beach nourishment project (e.g. response to burial of rocky

intertidal and sandy beach communities; anticipated recovery trajectories, if possible, based on organism recruitment patterns, etc.) Please provide additional data and evidence to support the conclusion in the Applicant's response package that no permanent impacts to low intertidal rocks/surfgrass, intertidal sand, subtidal reefs, kelp beds, or eelgrass as a result of the proposed beach nourishment.

(c) Please include an analysis of the impacts to kelp/eelgrass/surfgrass, rocky reef, shallow soft bottom subtidal, sandy beach ((upper, mid, lower zones – epifauna and infauna for each zone including shorebirds), wrack, rocky intertidal, coastal strand, southern foredune, and Trancas estuary and creek mouth habitats and the associated biological communities that would occur as a result of long-term beach maintenance activities including but not limited to backpassing, beach sculpting, and recurrent beach nourishment. The submitted response letter dated 12/21/12 and associated attachments submitted on 1/9/13 did not discuss or include and analysis of all long-term beach maintenance activities including, but not limited to, backpassing and beach sculpting. Additionally, the Applicant's most recent response package did not adequately quantify the habitat impacts that would result from proposed nourishment events, backpassing, or sand scuplting. As such, please submit additional qualitative and quantitative information to satisfy this requirement.

(d) Please include an analysis of the habitat impacts to kelp/eelgrass/surfgrass, rocky reef, shallow soft bottom subtidal, sandy beach (upper, mid, lower zones – epifauna and infauna for each zone including shorebirds), wrack, rocky intertidal, coastal strand, southern foredune, and Trancas estuary and creek mouth habitats associated with each of the seven (7) project alternatives considered in the alternatives analysis. The submitted response letter dated 12/21/12 did not include an adequate analysis of the habitat impacts associated with the sensitive habitats mentioned above. Specifically, the subject response package did not include quantitative information and a comparative analysis of all habitat impacts associated with each proposed project alternative, as described in further detail in the attached draft APTR document.

(e) Please provide a detailed strategy for minimizing, to the greatest extent possible, all adverse impacts to kelp/eelgrass/surfgrass, rocky reef, shallow soft bottom subtidal, sandy beach (upper, mid, lower zones – epifauna and infauna for each zone including shorebirds), wrack, rocky intertidal, coastal strand, southern foredune, and Trancas estuary and creek mouth habitats from all activities associated with sand nourishment. Specifically, this analysis needs to address the importance of determining potential impacts to infaunal and epifaunal animals such as longer-lived tubicolous polychaetes, clams, snails, crabs, sea cucumbers, sand dollars, sea pens and sea pansies and should evaluate the relative abundance of shorter-lived versus longer-lived benthic species in the identification of source sites. The strategy should include ecological considerations of timing, sensitive resource avoidance, sand deposition location, and enhanced habitat recovery, at a minimum. Specifically, the analysis should also evaluate the relative abundance of shorter-lived versus longer-lived benthic species in the identification of source sites.

(f) Please provide a dune restoration plan designed by a qualified ecologist that incorporates native coastal strand and southern foredune species. In this restoration plan please address the potential for recurring beach nourishment and backbassing operations to impact the proposed dune restoration area. Identify and quantify the potential impact this could have on the Broad Beach Dune habitat. Additionally, please provide data and biological evidence supporting the findings in the Applicant's proposed dune restoration plan that the proposed height, hummock shape and positioning of the proposed dunes will be the most effective design for successful dune restoration,

either from a sand retention or habitat creation standpoint. Please provide evidence and data that the dune morphology plans and the plant palette and plant placement design reflect the physical dimensions (the natural form) of southern foredune systems and the species and locations of southern foredune plants, respectively. As part of the proposed dune restoration plan please also address the following:

(i) The Applicant's response and the attached draft APTR make the assumption that the proposed dune restoration would be considered a beneficial native habitat creation along the entire stretch of Broad Beach from the west to the east end of the proposed sand nourishment footprint. However, the submitted Exhibit K(b) conceptual dune restoration plan and Exhibit M, draft APTR included in the Applicant's response package dated 1/9/13, do not take into account the historic footprint of dunes on Broad Beach and assume, with no documentation or evidence, that the historic dune footprint extended the entire length of the subject shoreline. As there is no evidence in the Applicant's response package or attached draft APTR documenting that this westernmost portion of Broad Beach has ever supported a healthy native dune system, please provide additional information, documentation and/or evidence in the dune restoration plan and associated biological studies/reports regarding the historic alignment, location and distribution of native dune habitats within the subject project area.

(g) Please specify how the salinity of the dredged sand proposed for use to construct the dunes will be addressed to ensure the success of native dune restoration. Provide details and evaluate all associated impacts. One solution that has been proposed is use of a clean cap of sand. If this is the preferred solution please address the following: where will this sand come from?, what are the habitat conditions at that site?, and how will the habitat be affected by removing the sand? The Applicant's response package dated 1/9/13 included only potential scenarios to address the salinity of dredged sand used to construct the proposed dune habitat and did not include a final proposal of all the methods that will be utilized by the Applicant. Please provide a final proposed plan with measures to address this component of the proposed project.

10. Beach Nourishment Donor Site.

(a)Please provide comprehensive, quantitative baseline summer and winter surveys of all **final** proposed sand nourishment donor site(s) in order to characterize the epifloral/faunal (diver transect and video surveys) and infaunal (grab samples) species composition. In order to ensure that the respective sampling designs are adequate to accurately characterize the donor site (s), please produce species area curves for each sampling method used. An adequate number of samples is indicated by the point at which the curve begins to level off and the probability of encountering new species declines. The donor site sampling design should include:

- Sediment cores/grabs (e.g. Smith/McIntyre) designed to sample a minimum of one foot below the sediment surface of all final proposed dredging/sand source locations
- Diver transects and/or video surveys that quantify the epifauna of all proposed dredging/sand source locations

(b)Please include an analysis of the habitat impacts that would occur at the sand nourishment donor sites as a result of the long-term management of the proposed Broad Beach shoreline,

including recurrent sand dredging operations. The analysis should include, but not be limited to an analysis of the sand transport and beach changes in the vicinity of the donor site, information regarding the estimated reoccurrence of beach nourishment activities (i.e would the same donor site be used after the initial dredging operation if additional beach nourishment becomes necessary in the future? If so, how often), and any impacts to the existing habitats at the donor sites, specifically addressing the estimated reach of the turbidity plume, the habitat and organisms that will be affected by the plume, the possible length of time the plume would remain, etc.

(c) The applicant's consultant states that ecological recovery of the sand donor site (s) is expected to occur relatively quickly; within 1 to 4 years. Please provide a review of peer-reviewed literature as well as other sources of information that supports this perspective with an associated summary review/report of each of the data sources including conclusions based on an overview of all the data. Additionally, the basis for the fast benthic recovery rate should be clarified and should consider the impacts of dredging on the entire benthic soft-bottom community including infaunal and epifaunal species such as tube-building (tubicolous) polychaete worms, clams, snails, crabs, sea cucumbers, sand dollars, sea pens and sea pansies, and peanut and acorn worms. As these species are generally relatively long-lived (5-25 years) and provide an indication of long-term environmental conditions in an area (e.g., surge and current intensity, nutrition regime, sediment texture, and nutrient overload or eutrophication please provide additional quantitative analysis of their anticipated recovery at each proposed donor site based on current biological surveys and data.

11. Impacts to Habitat Summary Table. Please provide us with a revised table that presents the type, location, and acreage of habitats that would be impacted due to the placement of sand, beach nourishment operations, and revetments (this should include the retention of existing revetments) and by offshore dredging and at sand donor sites taking into account all additional relevant information required in this incomplete letter. This information should also be provided in table format for all other alternatives that are being analyzed.

Engineering

Please submit two copies of a comprehensive, current (not more than 1 year old), site-specific coastal engineering, geology and soils report (including maps) prepared in accordance with the Guidelines for Engineering Geologic Reports, prepared by the State Board of Registration for Geologists & Geophysicists (7/98). Copies of the guidelines are available from the Coastal Commission District Office which address the following:

12. Temporary Emergency Revetment.

(a) As part of the Applicant's response package dated 1/9/13 Appendix 5-Beach profile Surveys was submitted. This profile survey and attached plots/cross sections need to include all areas shown within the plot (including those areas identified as 'access denied') in order to adequately provide the required analysis. Additionally, the submitted survey and associated plots were only provided for the proposed project. As such, please provide detailed modeling and analysis of seasonal and interannual shoreline profile changes in response to all six (6) proposed alternative shoreline protective options over the next 20 years and for the expected economic life of the inland development. The transect plots for each alternative also need to show the alignment of the existing emergency revetment. Sea level rise and the occurrence of extreme storm events (El Nino conditions) should be evaluated as inputs in this analysis. Seasonal and interannual shoreline cross

sections should be provided for each alternative so that changes in slope and depth, habitat changes and beach conditions can be analyzed.

Section 30253 of the Coastal Act requires (in 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."

As stated previously, the CDP review must treat the proposed project as new development. As such it is important that the application establish that some type of shore protection is needed to protect inland development on all portions of the beach where the proposed revetment would be located for the inland development, that the proposed protection will avoid or minimize adverse impacts to coastal resources (normally through using as small and as inland a footprint as possible), and that any unavoidable impacts will be thoroughly mitigated. For example, there is now a discussion about the utility of the bags for revetment support and drainage. However these functions are important to all revetments and are normally provided by soil compaction, filter fabric and drainage material and these normally have a smaller footprint than the sandbags. Please discuss the benefits of reliance on the sand bags over conventional designs and please provide the engineering analysis to show how the sand bags are important to the design, and how they improve stability over the traditional design of revetments.

*(b)*Please include adequate analysis addressing what existing development will the proposed project protect? What is the erosion risk to each site and what is the time frame for the risk? Many of the buildings are setback from the shoreline; over what time period can they be expected to be at risk from erosion. Please include an analysis of the minimal level of shoreline protection that would be necessary to protect only the principal residential structures and the septic systems (Not including the yard/patio areas, tennis courts, garden sheds, ancillary structures, residential beach accessways or vegetation). Please provide the sea level rise conditions and erosion rates or episodic erosion conditions that are assumed in the analysis of erosion risk. As part of this analysis please specifically address the following:

i. The Applicant's Revised Coastal Engineering Report and draft APTR submitted on 1/9/13 do not adequately demonstrate or confirm the need for additional shoreline protection, in the form of sand deposition and dune creation, on the western end of the beach where most homes are constructed on a coastal bluff, on pilings, or behind a seawall, revetment or bulkhead. As such, please provide additional data, documentation and engineering analysis to address the Applicant's proposal for shoreline protection in the form of beach replenishment and dune creation on this segment of the beach.
ii. Please also provide the need for shoreline protection at the eastern end of the proposed project, especially at the existing 100' gap and the area to the east of this.

(c) At a minimum, please provide an analysis for all potential hard armoring structure alternatives that address the issues raised by Section 30235 of the Coastal Act: (1) is there an existing structure or public beach; (2) is the existing structure or public beach is in danger from erosion; (3) will the proposed alternatives provide protection to the existing structure or beach that is in danger from

erosion; (4) will the proposed alternative minimize impacts on local sand supply; and (5) and will the proposed alternative be the least environmentally damaging feasible alternative. The impacts to sand supply and least environmentally damaging feasible alternative should look at the protection alone, assuming the beach nourishment has been eroded or not installed.

(d) Impacts related to the initial construction and permanent retention of the 4,100 linear ft. temporary rock revetment consisting of 33,000 tons of rip rap, as well as proposed nourishment, should be evaluated as part of the proposed project. This evaluation should include analysis of the long-term effects of the revetment on shoreline sand supply and coastal processes including the potential for wave reflection and scouring that could occur from the permanent retention of the structure, public access and recreation, visual resources, and sensitive dune habitat and beach habitat. As part of this evaluation please include an analysis of the long-term natural sand trends functioning under normal conditions without the entire rock revetment in place and with the entire rock revetment in place. Include a discussion of natural dune formation processes and any interference or impact a permanent revetment could cause during the project duration. Moreover, the analysis should evaluate the effects of sea level rise and other foreseeable factors that affect the shoreline relative to the proposed project and a range of alternatives in order to adequately assess potential impacts.

13. Unpermitted Revetment Sections and unpermitted sandbags/sandbag walls.

Please provide detailed technical analysis of the structural stability and function of the unpermitted revetment sections and the unpermitted sandbags now proposed for permanent retention. Include a detailed plan set showing cross sections, elevations and the location of all unpermitted rock revetment and unpermitted sandbags located within the project boundaries.

If any unpermitted development is included in the proposed project, please provide an analysis of the efficiency of design of these unpermitted developments and the level of shoreline protection that they provide to the primary residences along Broad Beach. What level of structural integrity do these existing unpermitted developments provide to the existing temporary emergency rock revetment? Are there any other alignments, formations, rock sizes or sandbag structure types that minimize or avoid impacts to coastal resources while providing acceptable protection of some or all existing Broad Beach residences? What is the anticipated long term stability of these unpermitted developments? Is there potential for them negatively effect the structural integrity of the existing temporary rock revetment, or any other component of the proposed project, over the duration of the project? Sea level rise and the occurrence of extreme storm events (El Nino conditions) should be evaluated as inputs in this analysis.

14. Beach Nourishment.

*(a)*Please continue and provide pre-monitoring surveys of the sand levels, beach profile and sand trends at Broad Beach, and add in control profiles for the western portion of Zuma Beach. Include an analysis regarding any potential adverse or beneficial impacts that could occur at Zuma Beach as a result of the proposed beach nourishment project component.

(b) The proposed sand back-passing and renourishment triggers included in the revised project description submitted as part of the Applicant's response package dated 1/9/13 are vague and need to include further detail and explanation. Please provide detailed and unambiguous triggers for back passing, triggers for new nourishment, and analysis of the impacts to Broad and Zuma Beach from the proposed frequent project maintenance activities. Specifically, the back passing triggers

need to incorporate the following analysis and considerations (1) As the beach profile and conditions are substantially different on the east and west end of the beach, please identify the specific conditions that would trigger the need for backpassing or beach nourishment over each segment of the project area. Additionally, please address what the phrase "sufficiently greater', included in the proposed project description, would consist of. Overall, would the proposed triggers be based on engineering surveys? What specific protocols would be in place to control the occurrence and timing of these maintenance activities? (2) Given the large size of Reach C, backpassing and renourishment triggers reach should be subdivided into smaller sections for purposes of back passing and adaptive management (below). (3) the backpassing and renourishment triggers should take into account the minimum beach width necessary to ensure continued public access along public land within the project boundaries(4) Over what length of shoreline do the proposed triggers suggest that narrowness be evaluated? (5) The relationship and dynamic between potentially competing elements of the proposed project, including dune restoration and beach nourishment maintenance activities needs to be evaluated as part of the proposed backpassing and renourishment triggers.

Adaptive Management, Economic Assessment and Alternatives Analysis

15. Adaptive Management.

(a) Please provide a comprehensive adaptive management plan that identifies the triggers that would necessitate sand backpassing and sculpting activities and beach nourishment operations beyond the initial deposition of 6000,000 cubic yards proposed in the current project description.

(b) Since the beach and dune nourishment are proposed as part of the overall protection effort, they should be maintained for as long as the hard armoring structures are likely to remain in place. What is the preferred alignment and structural formation of the dune restoration that would best ensure the long-term success of the proposed dune restoration area without any additional beach nourishment during an extended time period? As part of this analysis please also include a review and evaluation of projects where dunes have been created or restored over rock revetment or other material that includes a discussion of the level of success of the respective projects. In considering such projects, please discuss the project objectives and the factors (natural and anthropogenic) that led to the success or failure of the project. Additionally, please incorporate an analysis of potential long term beach management operations that would be necessary to maintain the proposed beach profile over the next 10, 20, and 40 years.

(c) Please identify and discuss if any of the seven (7) proposed project alternatives included in the Applicant's Revised Coastal Engineering Report and draft APTR document submitted as part of the response package dated 1/9/13 reduce the need for long term active management of the beach and continuous backpassing operations compared to the proposed project?

(d) Specifically, the adaptive management plan should include but not be limited to, (1) adaptive management plans that will account for higher rates of dune sand erosion or unsuccessful dune vegetation establishment within the expected timespan, (2) adaptive management of public access and dune ESHA if the proposed beach replenishment erodes within a much shorter timespan than the proposed 10 year beach replenishment interval (3) monitoring requirements to track the

impacts to all sensitive biological habitats (e.g. kelp/eelgrass/surfgrass, rocky reef, shallow soft bottom subtidal, sandy beach -upper, mid, lower zones-epifauna for each zone including shorebirds-wrack, rocky intertidal, coastal strand, southern foredune, and Trancas estuary and creek mouth habitats and the associated biological communities) within the project scope that could potentially be impacted by the proposed project, (4) potential impacts to sand transport and accumulation trends on Zuma beach (5) accumulation of offshore sandbars that could impact the quality of surfing or any marine recreation activities offshore of Broad Beach and (6) management recommendations if the proposed dunes, which will rise above the ground elevation of some homes within the project area, start to move landward toward the homes and create conditions considered to be a nuisance problem by the homeowners.

16. Economic Assessment. Please submit an economic analysis, prepared by a qualified economic analyst, addressing both the recreational costs and benefits of the proposed rock revetment and dune and beach nourishment operations. The analysis must assess both adverse impacts, as well as any benefits, to public access and recreation that would result from the project both along Broad Beach and downcoast areas of the shoreline.

The analysis must fully evaluate and compare both the benefits and adverse impacts of the proposed project relative to all feasible proposed project alternatives included in the Applicant's Revised Coastal Engineering Report and draft APTR document submitted as part of the response package dated 1/9/13 (including the a 'no project' alternative where no shoreline protection was in place within the project boundaries). As alternative 7 involves alternative sand source sites and dredging locations and is not as relevant to this economic assessment, please note that only proposed alternatives 1-6, as well as a 'no project' alternative are required to be incorporated into the subject assessment. It must also assess the beach and recreational values for the project as it changes with time. For example, the proposed alternative includes back shore armoring that would fix the back beach location and limit the available beach width available for public use during times of erosion or in between back-passing and nourishment efforts. An alternative with a more landward relocation of the hard shore protection would have fewer limitations on available beach width. The economic analysis must be based upon the recreational value of the range of all possible future beach conditions, relative to expected sea level rise, and not only upon the design template. If the changes to surfing from the regular burial of the bar breaks can be determined, then surfing should be included in the valuation of project alternatives.

The Revised Analysis of the Recreational Benefits due to a Proposed Nourishment Project at Broad Beach submitted as Exhibit R in the Applicants response package dated 1/9/13 did not include an analysis of all proposed alternatives 1-6 included in the Applicant's response materials. As such, please provide a final economic assessment based on additional data that considers the recreational costs and benefits of the proposed rock revetment, unpermitted sand dunes/rock revetment sections, dune and beach nourishment operations related to project alternatives 1-6, including but not limited to the 'no project' alternative.

17. Alternatives Analysis. The submitted alternatives analysis is inadequate and fails to analyze all feasible alternatives to the proposed project that would serve to minimize adverse impacts to coastal resources. Staff did receive a copy of the Draft APTR document as part of the Applicant's response package, which the Applicant indicated in their letter dated 12/21/12, was intended to be used as the alternatives analysis for the project. However, as previously discussed in past meeting between CCC staff and the Applicant's representatives, the applicant is responsible for providing complete

alternatives analysis. In this case the Draft APTR does not provide an adequate alternatives analysis for the proposed project. For your convenience the Commission's comment letter regarding the Draft APTR will be provided with this incomplete letter for reference. Therefore, please submit an analysis, prepared a qualified coastal engineering professional, of all feasible alternatives to the proposed project that would serve to minimize adverse impacts to coastal resources, specifically including the following:

(a) Provide an analysis of structural integrity and stability of the proposed shoreline protective structure (as-built revetment) and of the proposed alternatives. In this analysis please indicate the estimated life of each alternative and describe any anticipated maintenance and repairs of this alternative in the future. The conditions normally used to determine structural stability include: (1) a seasonally eroded shoreline; (2) a shoreline that has experienced long-term erosion appropriate to the design life of the structure; (3) still water level with elevation from a low pressure system, high tide and sea level rise appropriate to the design life of the structure; and (4) storm waves comparable to the 100-year storm event.

Specifically, the alternatives analysis must include an evaluation of all alternatives that would allow for a shoreline protection device on site to be located as far landward as feasible and designed in a manner that would minimize adverse impacts to coastal resources. The alternatives to be evaluated should include, but not be limited to: beach nourishment with no permanent shoreline protection device; relocation of the revetment or other hard armoring structure to a further landward location, relocation of the revetment or hard armoring structure inland of all the lateral public access easements that already exist; landward relocation of the downcoast portion of the revetment where the beach is wider; and the use of a vertical seawall in order to minimize the footprint of the structure on the sandy beach. Also, since a seawall option would be viable for this beach area, the long-term option of placing a vertical wall further inland of the proposed location for the rock revetment (including installation of a wall immediately seaward of the residences to be protected) should be considered as an option in conjunction with the proposed beach and dune restoration. The beach nourishment and dune restoration could still be constructed, as planned, but with the seawall as the last line of defense instead of the revetment. Also, please include information regarding different possible alignments of a seawall and identify the effectiveness of such a shoreline protective device compared to the effectiveness of the existing temporary emergency revetment.

(b) The alternatives analysis in the Applicant's Exhibit L and draft APTR, submitted as part of the Applicant's response package, should be revised to evaluate the impacts of each of the seven (7) proposed alternatives relative to the shoreline that would exist if shoreline protection (including all sandbags and/or the existing emergency revetment temporarily authorized through 4-10-003-G and 4-10-029-G) was not present. Given that the existing revetment and sand bags were permitted on a temporary basis only, all alternatives for management of erosion at Broad Beach must be considered relative to the shoreline that would exist without this shoreline protection. Specifically, as part of the alternatives analysis all impacts must be evaluated to the kelp/eelgrass/surfgrass, rocky reef, shallow soft bottom subtidal, sandy beach (upper, mid, lower zones - epifauna and infauna for each zone including shorebirds), wrack, rocky intertidal, coastal strand, southern foredune, and Trancas estuary and creek mouth habitats in addition to public access and visual impacts that will result from each alternative as if the temporary revetment/ unpermitted revetment sections were not present on Broad Beach. All alternatives should be considered from the baseline conditions (i.e. the

state of the shoreline present prior to emergency construction of the rock revetment, sandbag revetments and all other development proposed as part of the subject project).

(c) Where shoreline protection is proven necessary because an on-site septic system/leach field is located on the sandy beach seaward of an existing residence, alternatives should be evaluated that would include relocation of septic systems to further landward locations and/or landward of the residence in order to allow for the furthest landward location of the revetment or vertical seawall. Further, alternative methods of sewage disposal that would eliminate the need for on-site septic systems/leach fields on individual beachfront lots, such as, but not limited to, a use of a single sewage package treatment plant that would serve all the homeowners within the project area should be evaluated. Moreover, the removal of existing private patios, private landscaping, lawns, and accessory structures located on the sandy beach seaward of these residences should be considered in the analysis of alternatives to allow for the construction of a shoreline protection device in a further landward location than the proposed revetment while still protecting the primary residence on each site. To reiterate, all feasible alternatives to the proposed revetment in its as-built location, including but not limited to, the above referenced alternatives, should be fully evaluated.

(d) An analysis of mitigation measures that would minimize or mitigate impacts to coastal resources that cannot be avoided through project alternatives should also be included in the project materials.

18. DEVELOPMENT ON A BEACH OR BLUFF

Please submit the following information as part of your CDP submittal:

a) All projects on a beach require State Lands Commission determination of location of most landward property line. (State Lands Commission, 100 Howe Street, Suite 100, Sacramento, CA 95825-8202, phone (916) 574-1800. Please make reference to your Coastal Development Permit file number when contacting the State Lands Commission. Please provide us with information regarding this correspondence and the determination of the most landward property line as part of your CDP submittal.

b) For projects on a coastal bluff or shoreline - a stringline map showing the existing, adjacent structures, decks and bulkheads in relation to the proposed development is required as part of the CDP submittal. The stringline is to be prepared in accordance with the attached guidelines.

c) For shoreline development and/or protective devices (seawalls, bulkheads, groins & rock blankets) - project plans with cross-sections prepared by a registered engineer. The project plans must show the project foot-print in relation to the applicant's property boundaries (include surveyed benchmarks), septic system, Mean High Tide Line (winter and summer), and the Wave Uprush Limit Line.

d) For shoreline development and/or protective devices a geotechnical report and wave uprush study needs to be prepared in accordance with the Commission guidelines.

Depending on what additional information is submitted in response to this letter, we may need more clarification and possibly more information as a result of our review of the information to schedule

the proposed project for Commission action. Should you need any clarification or have any questions regarding the list of items above, please give me a call.

Sincerely,

Melissa Ahrens
Coastal Program Analyst

AGENDA ITEM 10a

Broad Beach GHAD
Cash Flow

Cash in Bank : 6/30/13		1,109,499.75
Sources of Cash:		
GHAD Assessment funds		-
Invoices Paid thru 7/31/13	***Paid***	
ENSITU (Apr-Jun)	31,852.00	
Moffatt & Nichol	54,093.54	
Jeffer Mangels - May & Jun	56,414.20	
State Lands Comm-Staff Costs	1,471.64	
Bell, McAndrews & Hiltachk	632.40	
Kindel Gagan	6,500.00	
Verizon	39.07	
Administration	412.45	
Cash Paid Out		(151,415.30)
Cash Balance as of 7/31/13		958,084.45
Sources of Cash:		
GHAD Assessment funds		
Current Payables in hand:		
ENSITU	2,778.00	
Moffatt & Nichol	95,538.74	
State Lands Comm-Staff Costs	452.04	
Bell, McAndrews & Hiltachk	632.40	
ENGEO	5,500.00	
Linscott, Law & Greenspan Engineers	1,112.90	
Verizon	39.07	
Administration	995.95	
Total Invoices Due		(107,049.10)
Estimated Cash on Hand - 8/03/13		851,035.35

Broad Beach GHAD
Projection thru 12/31/13
AS of: 6/30/13

These budget numbers have not been adjusted yet	Actuals Paid FS Transferred, 2011	Actuals Paid Nov 2011-July 2013	Projection Aug-13	Projection 2013	Totals
Uses:					
M&N Preliminary Planning/Support/booklet/aerial	465,391	426,411			891,802
M&N 2.0 Field Investigation/Sand Survey	585,054	646,700	16,838	79,994	1,328,585
M&N 3.0 Project Entitlement	215,085	602,146	76,751	206,807	1,100,789
M&N 4.0 Preliminary Engr & Schematic Design	304,000	32,000	-	-	336,000
M&N 5.0 Final Engineering & Constr Documents	-	187,169	1,950	51,207	240,326
Jeffer Mangels-GHAD Admin & Assessments	244,158	351,266	-	48,913	644,336
Jeffer Mangels-Beach Restoration Permiting & Entitlements	101,902	685,810	-	204,385	992,097
ENGEO	49,867	59,548	5,500	8,493	123,408
ENSITU		48,376	2,778		51,154
Quality Mapping	14,934	1,176			16,110
Topanga Underground	3,000	7,000			10,000
Morgan, Miller & Blair	53,590	13,189			66,779
Bell,McAndrews & Hiltachk/Kindel Gagan		9,632	632		10,265
Wendel Rosen	1,694	39,798			41,492
Colantuono & Levin, PC		7,648		9,885	17,532
Fee-City of Malibu	17,584			-	17,584
Fee- Coastal Commission		40,000		25,000	65,000
Fee-Water Board		58,340		-	58,340
Fee-Fish & Game				9,172	9,172
Fee-Army Corp of Engr ?				-	-
Fee- State Lands Commission additional Permit fees				-	-
State Lands Comm-Staff Costs	79,343	205,629	452	87,506	372,930
EIR Consultant- AMEC Earth & Environ	190,324	463,188	1,113	179,143	833,767
GHAD Bond Legal/Underwriting				30,000	30,000
Tax Exempt Opinion				25,000	25,000
Line of Credit-fee/costs/interest		15,397		603	16,000
AON-E&O Insurance	6,286	7,509		8,004	21,799
Office / Phone/Web Site/Coping/Transcripts		5,943	39	167	6,150
Accounting Administration		17,958	996	8,046	27,000
Soft Cost Contingency				33,476	33,476
Total Uses	2,332,212	3,931,831.88	107,049	1,015,799	7,386,892
Sources of Cash:					-
Advances from Individual Homeowners (Actuals)	1,580,278	1,436,750			3,017,028
Addtl Advances from Individual Revetment Homeowners	261,579				261,579
Advances from TPOA General Fund	550,000	200,000			750,000
GHAD ASSESMENTS		3,193,521		94,153	3,287,674
Total Sources	2,391,857	4,830,271	-	94,153	7,316,281
Cummulative Running Balance	59,645	958,084	851,035	(70,611)	(70,611)