

BROAD BEACH GEOLOGIC HAZARD ABATEMENT DISTRICT

REGULAR MEETING AGENDA

Sunday August 28, 2016; 9:00 a.m.

Private Residence: 31030 Broad Beach Road, Malibu, CA 90265

Regular Session

- 1) Call to Order**
- 2) Roll Call**
- 3) Adoption of Agenda**

Closed Session

- 4) Conference With Legal Counsel; Pending Litigation
(Gov. Code § 54956.9(d)(1))**

Conference with legal counsel: Discussion of County of Ventura and City of Fillmore v. City of Moorpark and Broad Beach Geologic Hazard Abatement District, Santa Barbara County Superior Court Case No. VENC100479937.

- 5) Conference With Legal Counsel; Anticipated Litigation
(Gov. Code § 54956.9(d)(4))**

In the opinion of the Board of Directors on the advice of its legal counsel, a point has been reached where, based on the existing facts and circumstances, the District is deciding whether to initiate litigation.

Facts and Circumstances: Dispute over the gap in the revetment seaward of **30822 Broad Beach Road (Magidson)** and responsibility for fees and costs associated with filling the gap and related activities.

- 6) Conference With Legal Counsel; Potential Litigation
(Gov. Code § 54956.9(d)(4))**

In the opinion of the Board of Directors on the advice of its legal counsel, a point has been reached where, based on the existing facts and circumstances, the District is deciding whether to initiate litigation.

Facts and Circumstances: Dispute relates to ensuring proper total amount of BBGHAD assets.

Resumption of Regular Session: approximately 10:30 a.m.

- 7) Approve Summary of Actions from July 24, 2016 Meeting**

Staff Recommendation: Chair to conduct vote on approving Summary of Actions from July 2016 meeting. If passed, Chair to sign Summary of Actions.

8) Ceremonial/Presentations

None.

9) Consent Calendar

None.

10) Public Hearings

None.

11) Old Business

- a. Permitting and Regulatory Process Status. (Project Counsel and Engineer) Report to include project regulatory status update, including:
 - (i) Lead Agency update: CCC, SLC, and Army Corps.
 - (ii) Responsible & Consulting Agency update: RWQCB, NMFS, Cal. DFW, CalTrans, etc.
- b. Permitting Outreach & Strategy Update. (Project Counsel) Report to include status update on agency advocacy, stakeholder outreach, and related matters.
- c. BBGHAD Insurance: Scope of Directors & Officers Coverage, Potential Addition of Liability Coverage, and Indemnity and "Additional Insured" Provisions. (Project Counsel) Additional consideration of BBGHAD insurance coverage, including coverage for public/general liability, directors and officers, property damage, as well as protective "additional insured" and indemnity requirements.

12) New Business

- a. Consideration of Potential New Project Manager. (Project Counsel) The Board will consider the need for a replacement Project Manager and, if needed, an appropriate candidate for the position.

13) BBGHAD Officer Reports

- a. Project Manager Report (Project Manager)
- b. Treasurer's Report (GHAD Treasurer)

14) BBGHAD Board Member Reports

15) Public Comment - Non-Agenda Items

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

16) Future Meeting

Next Meetings: September 18, 2016, 9:00 a.m.; October 16, 2016, 9:00 a.m.

Location: TBD

17) Adjournment

Agenda Item

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Summary of Actions
BROAD BEACH GEOLOGIC HAZARD ABATEMENT DISTRICT
REGULAR SESSION MEETING

Sunday July 24, 2016; 9:00 a.m.
31454 Broad Beach Road, Malibu, CA 90265

1. CALL TO ORDER

The Chair called the meeting to order at 9:07 a.m.

2. ROLL CALL

PRESENT: Chair Norton Karno, Vice Chair Marshall Grossman, and Board Member Bill Curtis.

ABSENT: Board Member Jeff Marine and Board Member Jeff Lotman.

BBGHAD STAFF ALSO PRESENT: Board Advisor Chris Spiros, Project Manager Mark Goss, Engineer Russ Boudreau, Project Counsel Ken Ehrlich, and Clerk/Treasurer Heike Fuchs.

3. ADOPTION OF AGENDA

The Chair recognized the Project Manager, who reported that the Agenda was posted on July 21, 2016, at 8:30 a.m. within the BBGHAD boundaries and concurrently posted on the BBGHAD website. Vice Chair Grossman moved to adopt the agenda as presented. The Chair recognized Board Member Curtis, who seconded the Motion. The Motion passed 3-0.

Closed Session

At 9:08 a.m. the Chair announced, without objection, that the Board would move into Closed Session.

Resumption Of Regular Session

The Chair resumed Regular Session at approximately 11:22 a.m.

7. APPROVAL OF SUMMARY OF ACTIONS FROM MAY 22, 2016 MEETING

The Chair noted minor edits in the Summary of Actions from the May 22, 2016 Board Meeting that had been submitted to Project Counsel. Board Member Curtis moved, and Vice Chair Grossman seconded, to approve Summary of Actions subject to minor edits by the Chair. The Motion passed 3-0.

8. CEREMONIAL/PRESENTATIONS

The Chair recognized the Vice Chair, who asked that the Board recognize the passing of Project Counsel Ehrlich's father, who passed away. The Chair extended the Board's condolences to Project Counsel Ken Ehrlich and his family.

9. CONSENT CALENDAR

None.

10. PUBLIC HEARINGS

None.

11. OLD BUSINESS

a. Permitting and Regulatory Process Status.

(i) Lead Agency Update: CCC, SLC, and Army Corps.

CCC

The Chair recognized the Project Engineer, who updated the Board on the progress of the final plans for the Prior to Issuance Conditions, including the Dune Restoration Plan, and the coordination with the CCC-mandated Science Advisory Panel (SAP). The Project Engineer stated that the Project's Beach Nourishment Plan, the Revetment Pullback Plan, and the Traffic & Access Plans are completed, but the Dune Restoration Plan is taking longer than expected to ensure that the plan maximizes private back yards to the extent possible. The next step is to have the CCC staff approve the Dune Restoration Plan, and then present the plan to the homeowners. The Project Engineer further stated that the Adaptive Management Plan, the plan documenting beach nourishment and backpassing activities, should be completed within one week. The Dune Monitoring and Maintenance Plan should be completed as soon as the Dune Restoration Plan is final. BBGHAD sub-consultant Keith Merkel of Merkel & Associates is the lead on the Habitat Monitoring & Mitigation Plan, which continues to be formulated through SAP meetings. The Project Engineer anticipates that a draft of this plan should be submitted to CCC staff by early September.

The Chair recognized the Vice Chair, who asked the Project Engineer to explain the process in more detail once the plans are prepared and to provide a time frame for completion. The Project Engineer responded that the plans will be submitted to CCC staff upon completion, and clarified that the Dune Restoration Plan has proven more intricate and time consuming than anticipated. To the end, the BBGHAD Engineer contemplates presenting the Dune Restoration Plan to CCC staff for feedback on approach before finalizing the plan. The Project Engineer further stated that he does not have a completion date estimate, but should have a better understanding once he receives CCC staff feedback. The Project Engineer suggested to present the Dune Restorations Plans to the homeowners to show the dune design and impact to

secondary structures-- e.g. patios, etc. The Project Engineer estimated that all plans should be submitted to CCC staff in September 2016.

The Chair asked for more detail of the format of the homeowners' meeting. The Chair recognized the Project Manager, who responded that he plans to have two (2) informational meetings within one (1) month: a) present the Dune Restoration Plan to affected homeowners, and b) discuss Temporary Springing License in smaller group meetings.

The Chair recognized the Project Manager, who opined that the SAP is the BBGHAD's biggest concern at the moment. BBGHAD staff was advised approximately four (4) weeks ago that, due to not finalizing a Habitat Monitoring & Mitigation Plan by June 30, 2016 (the deadline for establishing a Spring data baseline), the BBGHAD cannot nourish the beach until September 2017 at the earliest. The Project Manager reminded the Board that three independent scientists comprise the SAP, which makes recommendations to CCC staff on Project monitoring and potential mitigation.

The Project Manager further stated that SAP meetings typically include representatives of CCC staff, Army Corps staff, NMFS staff, EPA staff, California Department of Fish & Wildlife staff, SLC staff, and others—and this group continues to discuss an expanded scope of work which is likely cost prohibitive. BBGHAD staff has repeatedly reiterated to the SAP that the BBGHAD's budget is limited by the assessment and, if the allocated amount in the assessment is exceeded, the BBGHAD cannot complete the Project. The Project Manager reported that he could not presently estimate the SAP costs since the Habitat Monitoring & Mitigation Plan has not been completed. The Project Manager stated that the BBGHAD has incurred approximately \$31,000 in SAP costs to date, and has another \$60,000 payment due in August 2016. The Project Manager opined that reaching agreement with the SAP/CCC staff on the Habitat Monitoring & Mitigation Plan is not insurmountable and that, in his opinion, the CCC wants the Project to go forward.

The Chair recognized Board Member Curtis, who asked if staff received a completed scope and breadth of the Habitat Monitoring & Mitigation Plan. The Chair recognized the Project Manager, who responded that they have not, as the SAP has not come to an agreement in several sections of the plan and the BBGHAD's consultant has not drafted the complete plan. The Chair recognized Project Counsel, who added that there are certain monitoring protocols that have been contemplated, but the SAP members are still undecided on the methodology.

The Chair recognized Project Manager, who stated that the CCC has the final approval of the plans. The Chair recognized Board Member Curtis, who asked if there are any other similar beach nourishment projects that have been through the same process and asked for staff's opinion on why the BBGHAD has to undergo such a rigorous and costly process. The Chair recognized Project Counsel, who responded that no other SAP has ever been created in California, except for oceanfront nuclear power plants. Project Counsel added that other factors have caused the CCC staff and SAP to exert such scrutiny on the BBGHAD, such as: the revetment will be a permanent beach feature (unique among nourishment projects), the Project proposes to use sand more coarse than previous nourishment projects, and the BBGHAD lies

within a Marine Protected Area (MAP) and a state Area of Special Biological Significance. Therefore, different and stricter requirements exist for this area.

The Chair recognized the Vice Chair who asked, due to recent difficult dealings with the SAP, and potential costs of the Habitat Monitoring & Mitigation Plan, if the Board should consider aborting the Project and revert to relying solely on the revetment for shoreline protection—in turn, placing responsibility back to each homeowner. The Chair recognized Project Manager, who responded that he recommends not taking any actions until the BBGHAD creates a comprehensive budget based on all Project costs, including that of the SAP. The Project Manager further briefed the Board on a recent conference call with the State Controller and her Chief of Staff, who advised of recent internal challenges faced by the CCC. In addition, the Project Manager reported that Mr. Ainsworth's duties have changed and, his availability to BBGHAD has become severely limited, forcing the BBGHAD staff to work more exclusively with Steve Hudson. The Chair recognized Project Counsel, who concurred with Project Manager and added, that they were advised to be patient during the CCC's internal transition for the next 6 to 9 months and to wait until a new Executive Director is in place.

The Chair recognized Board Member Curtis, who inquired about the reason the CCC would want to move forward with the BBGHAD project. The Chair recognized Project Counsel who responded that, in his opinion, the beach nourishment project is the only answer to sea level rise, and is the only privately financed public beach nourishment project.

The Chair recognized Mr. Max Factor. Mr. Factor referred to a CCC letter dated in May 2016, suggesting that the BBGHAD should let the SAP create the Habitat Monitoring & Mitigation Plan. The Chair responded that he appreciates any input from the public, but that the Board decided not to entertain an approx. \$10,000,000/year monitoring plan and has instructed staff to restrict and refine the plans to keep the costs manageable.

The Chair further opined that staff is doing the right thing by: a) enlisting the consultant, Mr. Keith Merkel, who is tremendous advocate of the Project, b) trying to constrain the subject and expedite the SAP process, and c) conforming to the process as presented. The Chair suggested, if there is no progress with the SAP, to wait until the beginning of 2017 for the new Executive Director to take office, reach out to commission and inform them that CCC staff has not succeeded, that time is of the essence, and to direct CCC staff to come to an agreement on the scope and breadth of the monitoring plan so it can be completed before December 2017.

The Chair recognized the Vice Chair, who asked for more detail on the alleged environmental impacts of the Project as discussed in recent SAP meetings. The Chair recognized Project Counsel, who responded that the BBGHAD is: a) placing more sand per square foot than any other beach nourishment project in southern California, b) working in a habitat rich area (west end) and potentially affecting that area, c) using more coarse than typical sand for a nourishment project, and d) breaking new ground in that there has never been a beach nourishment with an existing revetment. All of these factors create unique habitat and access challenges, and make determining and analyzing impacts fairly difficult. The SAP states that the foregoing points have to be monitored and studied in order to determine the impacts of the Project.

The Chair recognized Max Factor, who asked if the signing of the Springing Temporary Licensing Agreement required by the CDP could potentially become an issue. The Chair recognized Project Counsel, who responded that the CDP requires all property owners behind the revetment to sign the license. The Chair recognized the Vice Chair, who added that homeowners could face sanctions and penalties from the CCC if they do not sign. The Chair recognized Board Member Curtis, who asked what the sanctions could mean to each homeowner. The Chair recognized Project Counsel, who responded that staff was told by CCC they would issue monetary violations of the Coastal Act in the amount of approximately \$30,000-\$35,000 per day.

The Chair recognized the Vice Chair, who placed the content of the springing license into perspective and explained that it will take effect only if: a) the BBGHAD falls short on the beach nourishment and the revetment becomes exposed 3 out of any 5 years, b) the license is limited to 10 feet landward of the landward revetment edge, and c) the area will be roped off and marked with signage approved in the CDP. The Vice Chair opined that the public currently trespasses this area frequently, but the nourished beach should prevent such trespass.

The Chair recognized Max Factor, who asked why the CCC would facilitate the monetary sanctions on the homeowners. The Chair recognized the Vice Chair, who responded that the CCC wants the Project. The Chair recognized Project Counsel, who added that the CCC is more in favor of additional beach access and scientific data.

SLC

The Chair recognized Project Manager, who informed the Board that the SLC will consider the Project at its August 9, 2016 meeting at the Port of Los Angeles headquarters in San Pedro. The lease negotiations continue, and may even continue after the August 9, 2016 meeting. The Project Manager further reported that he and Project Counsel have met repeatedly with the Commissioners and their designees. The Project Manager opined that, after a recent phone conversation with the State Controller and her Chief of Staff, they favor the Project. The Chair recognized the Vice Chair, who asked the Project Manager if he expects a resolution approving the Project. The Project Manager responded affirmatively.

The Chair recognized Project Counsel, who suggested inviting the homeowners to the SLC hearing to show support, similar to the powerful homeowner showing at the CCC hearing. Additionally, Project Counsel stated that an overall Project update to BBGHAD owners appears. The Chair directed Project Counsel to draft a memo, signed by the Chair to the homeowners, asking for support at the SLC hearing on August 9, 2016.

The Chair recognized Board Member Curtis, who asked for an informational property owner meeting as there had not been any recent Project update to all. The Chair responded that the homeowners are always invited to the Board Meetings and Project updates are posted on the BBGHAD website. The Chair agreed that there should be an informational homeowners meeting summarizing the anticipated good news resulting from the SLC hearing, an update on

the beach nourishment rescheduled for Fall 2017 and the dune presentation, to be scheduled after the SLC hearing.

Army Corps

The Chair recognized the Project Manager, who reported that BBGHAD consultant Vectis, Congressman Ted Lieu and his staff have been very helpful advocating for an EA (shorter path) vs. EIS (longer process) with the U.S. Army Corps. The Project Manager further reported that staff has received a troubling letter from a federal consultative agency (National Marine Fisheries Service or "NMFS") recommending additional consultation and an EIS to the Army Corps. In addition, Aaron Allen with the U.S. Army Corps returned from his temporary transfer and is scheduled to meet with Project Counsel and others on August 11, 2016. The Project Manager opined that the Army Corps will ultimately decide upon an EA for the Project. The Chair recognized the Vice Chair who inquired about the timeframe for the EA path. The Chair recognized Project Counsel who responded that, according to BBGHAD consultant MBI, the process should be completed by Thanksgiving 2016.

The Chair recognized Project Counsel who explained that the Army Corps has several smaller agencies with whom it must consult as part of the permitting process. Here, NMFS has jurisdiction over an essential fish habitat evaluation for the Project. Project Counsel further stated that the BBGHAD received a 10- page letter dated July 11, 2016 from NMFS, which recommends that the BBGHAD pay mitigation as well as build an artificial reef due to purported Project impacts. Project Counsel pointed asserted that the letter does not specify how the Project is harmful to the fish life in this area, but still argues for significant mitigation. Project Counsel stated that the Army Corps must consult with NMFS on this issue and the Army Corps ultimately has discretion to adopt NMFS recommendations. If a disagreement exists between these agencies, an ascending federal inter-agency dispute resolution process exists to break the disagreement.

Project Counsel further reported that, at the SAP meetings, a strong alliance has become apparent between Bryant Chesney of NMFS and the Project's Army Corps Project Manager, Bonnie Rogers. The BBGHAD staff is addressing its concern with Ms. Rogers superiors at the Corps and with Congressman Lieu. Project Counsel opined that, if the Army Corps adopts NMFS' recommendations or if disagreement exists between the agencies, the Project schedule may not be met.

The Chair asked staff to approach Congressman Lieu on this matter and bring to his attention that the BBGHAD must comply with the CCC's prior to issuance conditions by December 31, 2017, and that the BBGHAD believes if an EIS path is recommended, the BBGHAD cannot meet the CCC's deadline for prior-to-issuance conditions. If the conditions are not met, the CDP will expire unless the BBGHAD succeeds in getting the deadline extended.

(ii) Responsible & Consulting Agency update: RWQCB, NMFS, Cal. DFW, CalTrans, etc.

The Chair recognized Project Manager, who reported that there have been no meetings with the RWQCB, as the RWQCB permitting will occur following the Army Corps permitting process.

The Chair recognized Project Manager, who stated his concern regarding the Trancas Bridge repair. The Project Manager reported that, in the past CalTrans' estimate for the bridge repair was scheduled for 2018, but the date had been moved since then. The Project Manager opined that the Trancas Bridge repair could cause logistical issues as the date for the BBGHAD nourishment has been moved to Fall 2017 and that he will meet with CalTrans to determine the updated bridge repair schedule.

b. Permitting Outreach & Strategy Update.

(i) County of Ventura and City of Fillmore v. City of Moorpark and Broad Beach Geologic Hazard Abatement District.

The Chair recognized Project Counsel, who reported that Mr. Max Factor requested an update on the Ventura County litigation. The case has been transferred to Santa Barbara County Superior Court and a new and third (3) judge was assigned to the case in the past week. Project Counsel further stated that the case is moving forward and is optimistic that the hearing will take place in Fall 2016. Project Counsel reported that staff is in concurrent resolution discussions with Ventura County and that Ventura County is trying to fulfill their commitment to clear Calleguas Creek for flood control issues. Project Counsel further explained that the Calleguas Creek material could be usable for the BBGHAD Project and that staff is in discussion with the County about the pricing and logistical details.

The Chair inquired about feedback about the acceptability from CCC regarding the sand coarseness. Project Counsel responded that Project Manager requested approval, but had not heard back from CCC staff. Project Counsel opined that he is not optimistic that the CCC staff would approve a more coarse sand specification. If CCC staff does approve more coarse sand, clearly the BBGHAD would be responsible for any mitigation associated with impacts caused by the more coarse sand. The Chair recognized Project Manager, who agreed with Project Counsel. The Chair recognized the Vice Chair, who inquired if the BBGHAD would have to start over the process if the Project would use the coarser sand. The Chair recognized Project Manager, who responded that he does not believe that we would have to start over again, but he assumes that the SAP would want to study the impact of the coarser sand on the beach.

c. BBGHAD Insurance: Scope of Directors & Officers Coverage, Potential Addition of Liability Coverage, and Indemnity and "Additional Insured" Provisions.

The Chair recognized Project Counsel, who updated the Board on the current status of a more comprehensive Directors & Officers' Policy for the BBGHAD. The Board asked Board

Member Curtis to serve as the point person to obtain a proposal for property, liability and a revised D&O insurance policy with the Broker of Record, HUB Intl. Project Counsel reported that he has been communicating and responding to Board Member Curtis' questions regarding the scope and breadth of the BBGHAD's potential liability to third parties, and state law regarding indemnity of public employees and public officials. Project Counsel reported that he asked Counsel Michael Colantuono for his input in this. Mr. Colantuono suggested that insurance in general is useful to the BBGHAD to the extent that the BBGHAD does not have its own resources to rely upon if it finds itself in position to defend and/or indemnify an officer and/or employee. Mr. Colantuono advised that he is more concerned about those obligations than liability itself. The Chair recognized Board Member Curtis who inquired if someone can sue the Board Members and/or the BBGHAD for bodily injury and property damage or if the BBGHAD is protected as a government organization. Project Counsel responded that anyone could sue anyone for anything. Project Counsel further stated that there is a series of statutory protections and case law protections limiting the liability of public entities such as the BBGHAD.

The Chair recognized the Vice Chair, who stated that the government indemnity may not be not absolute and questioned the areas the BBGHAD is unprotected, and whether the Board should seek more protection and whether Mr. Colantuono addressed these areas. Project Counsel responded affirmatively, adding that there are potential exposures for Board Members and the BBGHAD and therefore should have additional coverage. Mr. Colantuono suggested contacting the Special District Risk Management Authority, an insurance pool created by the State of California, that provides liability and property insurance for special districts. This agency may also consult the BBGHAD on how much additional coverage is needed. Project Counsel reported that he started the process with an underwriter, Wendy Tucker, who informed Project Counsel that they are aware of GHAD's and that they have rejected them before as they are usually located in landslide areas. Project Counsel informed Ms. Tucker that the BBGHAD is different and submitted a Project Description. Project Counsel expects to hear back from Ms. Tucker shortly. Project Counsel also reached out to the GHAD trade group to receive more information and contacts.

The Chair recognized Vice Chair, who inquired if Project Counsel can deal with Ms. Tucker, although the BBGHAD signed a BOR agreement with HUB. The Chair recognized Board Member Curtis, who stated that he will direct HUB to withdraw and Vice Chair agreed to do the same with AON. The Chair opined that this is an existing format with knowledgeable personnel and instructed Project Counsel to move forward with Ms. Tucker.

The Chair recognized Board Member Curtis who asked Project Counsel if a document exists stating that the Board Members and its operators are covered by the current D&O policy. Project Counsel responded that he has seen the declarations sheet form the current policy and it specifies that Board Members are covered. The Chair recognized Vice Chair, who asked to have Mr. Colantuono send a letter to that effect and to have Mr. Colantuono check on the Plan of Control. The Chair added that he believes that the BBGHAD adopted a resolution stating the BBGHAD is protecting its operators and Board Members from liability relating to the Project. The Board directed Project Counsel to look for the resolution to that effect.

12. NEW BUSINESS

a. BBGHAD Assessment CPI Increase: March 2012- September 2015.

The Chair recognized Project Counsel, who briefed the Board on the proposed resolution regarding the Consumer Price Index (CPI) increases March 2012 through 2015. Project Counsel stated that he was advised by Mr. Colantuono to have the Board retroactively approve the past increases since the BBGHAD's inception.

MOTION: The Vice Chair moved, and Board Member Curtis seconded, that the Board adopt Resolution 2016/02 as presented. The Chair called the question and the Motion passed 3-0.

b. BBGHAD Assessment CPI Increase: Increase for Current Fiscal Year Based on September 2015 Assessment.

The Chair recognized Project Counsel, who briefed the Board on the proposed resolution regarding the July 1, 2016 CPI increase (1.2%) in assessment, to be reflected on next property tax bill.

MOTION: The Vice Chair moved, and Board Member Curtis seconded, that the Board adopt Resolution 2016/03 as presented. The Chair called the question and the Motion passed 3-0.

c. Project Manager Advance Compensation.

The Chair recognized Board Member Curtis who asked the Board to amend the Motion and issue a \$10,000 Bonus to the Project Manager based upon his hours, efforts and performance on the Project. The Chair responded that the Project Manager's total compensation is not on the Agenda and therefore out of order. The Chair recognized Project Counsel, who agreed with the Chair's statement that discussing the Project Manager's compensation is inappropriate and the bonus should be agendized separately.

The Chair recognized Project Counsel, who briefed the Board that in June 2016 it had come to his attention that the Project Manager asked for an advance of his June compensation and that the advance was paid to the Project Manager. The Chair added that the Board has never made any decision in this matter, and that two (2) people paid the advance without authority and knowledge that it was probably in violation of the law.

Project Counsel reported that he was then directed by the Board to ensure that the Board would properly consider the advance and to document what had happened leading up to the June advance payment, to agendize it for the August 2016 Board Meeting, and to draft an agreement documenting the past advance payment and authorizing future advance payments until the end of 2016. The agreement in the Board Packet facilitates Project Manager's request and authorizes retroactively the June 2016 advance payment. The Chair requested a provision to put into the agreement stating that the Advance Agreement does not change the current compensation agreement, embodied in Resolution No. 2013/04.

MOTION: The Chair recognized the Vice Chair, who moved, and Board Member Curtis seconded, to approve compensation agreement with Project Manager as amended by the Board. Hearing no further discussion, the Chair called the question and the Motion passed 3-0.

13. BBGHAD OFFICER REPORTS

a. Project Manager Report

None.

b. Treasurer's Report

The Treasurer reported that, as of July 18, 2016, the cash balance was \$3,540,506.59 and the estimated unpaid bills amount to \$394,760.30.

The Chair recognized Vice Chair, who asked if staff tracks all BBGHAD expenses to ensure the BBGHAD is on budget. The Chair responded that the Board directed the Project Manager and Clerk/Treasurer to produce a new spreadsheet, starting FY 2015/16 with the new assessment numbers at the May 22, 2016, Board Meeting. The Chair recognized the Treasurer, who reported that the Project Manager is reviewing a draft of the new spreadsheet created by the Treasurer. The Chair directed the Project Manager to provide the new spreadsheet at next Board Meeting.

14. BBGHAD BOARD MEMBER REPORTS

The Chair recognized Board Member Curtis, who requested to put Project Manager's Compensation Agreement/Bonus on the Agenda for next Board Meeting. The Chair directed Project Manager to agendaize it, under New Business, for next Board Meeting.

15. PUBLIC COMMENT - NON-AGENDA ITEMS

None.

16. FUTURE MEETING

The Chair suggested future meetings for tentatively August 28, 2016, September 18, 2016, and October 16, 2016 with 9:00 a.m. start times.

17. ADJOURNMENT

Board Member Curtis moved, and Chair Karno seconded, to adjourn the meeting. Hearing no objections, the Chair called the question and the motion passed 3-0. The meeting adjourned at 2:19 p.m.

Approved and adopted by the Broad Beach GHAD
Board on _____, 2016

NORTON KARNO, Chair

ATTEST:

HEIKE FUCHS, Clerk

Agenda Item 11a

BROAD BEACH RESTORATION PROJECT STATUS REPORT – August 28, 2016

CALIFORNIA COASTAL COMMISSION (CCC)

- *Jurisdiction: Coastal Development Permit (CDP)*
- 10/9/15: **CDP with condition modifications approved at CCC hearing.**
 - BBGHAD proposed revetment alignment (Alt 4C) accepted.
 - Public access compromise identified.

Notice of Intent and Final Condition language dated 1/11/16 and received 1/29/16

Matrix prepared for "Prior to Issuance" conditions; proposed completion: Fall 2016

- 3/11/16: Received MN proposal for completion of "prior to issuance" conditions
- 6/26/16: CCC/SAP rejects BBGHAD monitoring proposal and cancels nourishment for 2016/17.
- 8/23/16: Meeting with CCC staff re SAP progress, definition of "impacts", and MHMMP

CALIFORNIA STATE LANDS COMMISSION (CSLC)

- *Jurisdiction: Lease and certification of APTR*
- September 11, 2015: CSLC issued letter deeming the BBGHAD application (in support of updated project Alt 4C) incomplete.
- 2/9/16: BBGHAD response to SLC lease letter sent.
- 5/20/16: Mtg with SLC staff
- August 6, 2016: **SLC approved Project and Lease**

US ARMY CORPS OF ENGINEERS (USACE)

- *Jurisdiction: National Environmental Policy Act (NEPA) Compliance and certification; Section 10 and 404 permits*
- Degree of NEPA compliance: Unknown. BBGHAD advocating for EA.
- Public Notice process complete.
- November 5, 2014: USACE initiated contact with tribal communities re cultural resource issues. USACE to submit cultural records search results to SHPO.
- August 5, 2015: Team submitted 404b(1) alternatives analysis to USACE; supplemented Jan 2016 in response to questions posed in 10/15.
- September 21, 2015: USACE initiated formal consultation with USFWS.
- November 2015: Cultural investigation records search and pedestrian survey requested by USACE completed.
- 2/15/16: BBGHAD received Draft Biological Opinion from USFWS.
- 3/18/16: Technical Decision Makers meeting with Congressman Ted Lieu and Colonel Gibbs.
- June 2016: Revetment mitigation negotiations complete; ACE begins participating in SAP.
- 7/11/16: NMFS issues letter re incomplete EFH consultation; BBGHAD response in process.
- 8/11/16: Meeting with senior USACE staff re finalizing permitting process; staff confirmed altvs. complete.
- 8/26/16: BBGHAD anticipated to submit response to 7/11/16 NMFS letter.

REGIONAL WATER QUALITY CONTROL BOARD (RWQCB)

- *Jurisdiction: 401 certification and, potentially, waste discharge requirements (WDRs)*

- Jan. 2016: BBGHAD submitted draft Water Quality Certification. RWQCB staff review in progress.
- July 2016: BBGHAD contacted EO to expedite review and processing.
- Aug 2016: RWQCB staff anticipates Fall 2016 certification.

CALTRANS

- *Jurisdiction: Encroachment permit for temporary traffic signal on PCH*
- Requires full engineering of the signal, a deceleration lane, an access to the west Zuma lot, and an egress point out of the west Zuma lot.
- 11/14/14: Permit package issued. Permit to be revised based on latest traffic plan.

LA COUNTY DEPT OF BEACHES AND HARBORS

- *Jurisdiction: Owner of Zuma Parking Lot 12 (Project Staging Area); BBGHAD needs Right of Entry Permit to use parking lot; LACDBH also coordinates with Caltrans and City of Malibu on traffic issues.*
- Right of Entry Permit Application to be submitted. GHAD Counsel advised holding off on submitting LA County permit application until dates of construction are better defined (dependent on timing of all other permits).
- Permit pending progress w/CCC and USACE.

CITY OF MALIBU

- Once construction start date solidified, will coordinate re traffic permits etc.

CONSULTING AND COORDINATING AGENCIES

National Marine Fisheries Service (NMFS), California Department of Fish and Wildlife (CDFW), & SM Bay Restoration Commission (SMBRC)

- *Jurisdiction: No discretionary permits, but consult with and provide input to permitting agencies.*
- NMFS: Essential Fish Habitat consultation remains pending per 7/11/16 NMFS letter.
- CDFW: Responsible for Marine Protective Areas (MPAs), including that off Broad Beach. Rep. part of SAP group. Concerned with Project effects on MPA - subtidal, intertidal, and turbidity. Not presently anticipated that a streambed alteration agreement will be required. USFWS and CaF&W working within SAP.
- Table below shows primary concerns with selected agencies:

Agency	Next Action	Concern
USACE	Formal consultation by NMFS and CDFW.	NEPA : Possibility that EIS will replace EA; ACE appears agreeable to integrating mitigation into adaptive management program
CCC	Submittal of final design reports prior to permit issuance.	Substantial liaison with Science Advisory Panel (SAP) required to finalize monitoring and dune plans prior to permit issuance.
SLC	Review of final Project (Alt 4C) items	Approved 8/9/16.
RWQCB	APTR review	Potential for request of RWQCB-specific additional info.

PERMIT SCHEDULE STATUS AS OF 8/28/16

AGENCY	ACTION	DURATION ESTIMATE	COMPLETION DATE (earliest possible)
CCC	Commission consideration	1 day	October 9, 2015. CDP approved with edits to condition language
	Review/Negotiation of Permit Conditions	5-6 months	Feb. 2016
	BBGHAD completion of "Prior to Issuance" Conditions	5-6 months	July 2016?
	Permit Issue	1-2 months	Fall 2016
SLC	Lease App. Completeness Notice	1 month	November 13, 2015
	Lease Negotiations	3 months - ongoing	N/A
	Commission consideration	1 day	Approved: 8/9/16
	Issue Final Lease	1 month	Fall 2016
	Lease Signature	1 week	Fall 2016
USACE	Submit 404b(1) alternatives analysis	2 months	August 5, 2015; supp 1/16/16 SUBMITTED & COMPLETE
	End formal biological consultations with CDFW re snowy plover	120 days (legal maximum)	February 2016- Draft Bio Opinion issued; Final pending
	Finalize EA ¹	2 months	September 2016?
	Issue Draft Permit	1 week	November 2016
	Review/Negotiation of Draft Permit Conditions	2 weeks	Sept.-October 2016
	Issue Final Permit	1 week	November 2016
RWQCB	Submit draft 401 Certification	3 weeks	January 2016
	Negotiate 404/WDRs	2 month	Aug-Oct 2016
	RWQCB approval of 404/WDRs	1-2 months	Nov 2016
CALTRANS	Encroachment Permit	4.5 months	November 2014 ISSUED
LA COUNTY	Parking Lot Permit	1 month	Unknown
CITY MALIBU	Traffic/signal approvals	Unknown	Unknown

¹ Longer duration if EIS is required.

**BROAD BEACH RESTORATION PROJECT
CDP PRIOR-TO-ISSUANCE CONDITIONS
STATUS UPDATE FOR M&N TEAM RESPONSIBILITIES
August 25, 2016**

1. SC1 – Final Revised Plans

- a. *Final Revetment Plans* – **complete pending 30822 gap fill decision**
- b. *Beach Nourishment / Beach Width* – **complete pending sand source decision**
- c. *Dune Restoration* – team reviewed preliminary dune restoration plans with CCC and CRC in webex last week – positive general response – **awaiting final input from Jonna E. – once approach is approved, WRA will complete the dune restoration plans and prepare for presentation to GHAD board and then homeowners – expect final dune plans ready for GHAD board review in four weeks** pending getting the nod from Jonna E. assumed early next week
- d. *Public access* –
 - i. lateral 10' wide 'contingent' access path immediately landward of entire length revetment – will direct WRA to add to dune restoration plans – assume will be **ready at time dune plans ready** (minor addition)– need to add lateral on top of dune plans
 - ii. vertical access – M&N recommends geotextile stairs in lieu of rock stairs – expect to review with CCC coastal engineer Lesley Ewing by end of week – then maybe a week turnaround – **say two weeks total**
- e. Other miscellaneous design elements:
 - i. Storm drains – **still need to determine responsibility issues – expect timing concurrent with dune plans**
 - ii. Backpass / interim nourishments – **90% complete pending any SAP input**
 - iii. Traffic / civil – **plans complete pending Caltrans review** – LLG taking lead on this – in Caltrans court – will push LLG to keep pushing Caltrans

2. SC4 – Final Adaptive Management & Monitoring Plan – internal QA/QC in process, draft for GHAD review **ready next week**

3. SC5 – Final Revised Dune Habitat Restoration and Monitoring Program – good progress made but driven by dune design – **estimate within 4 weeks after dune plan completion**, concurrent with GHAD and homeowner review

4. SC6 – Long Term Marine Resources Monitoring, Reporting and Mitigation Plan – meeting # 7 on Sept 2 – still working out major details, but CCC needs something to review – **draft ready for CCC review next week per KE email 25Aug**

5. SC8 – Sediment Analysis and Testing – need final sand source – **should only take 2 weeks to prepare draft once final sand source(s) have been determined**

Broad Beach Restoration Project:

MHMMP Meeting #4

WHEN: July 15, 2016 | 9am-5pm

LOCATION: Moffatt & Nichol - 3780 Kilroy Airport Way #600, Long Beach, CA 90806

CONFERENCE CALL-IN: 1-888-308-5230, **MEETING ID:** 25109

AGENDA

9:00a **Introductions & Brief Updates**

All participants will have an opportunity to contribute

9:30a **MHMMP Meeting #3 Recap & Follow-Up Items**

Lauren Garske-Garcia & Jonna Engel, California Coastal Commission

- Review Meeting #3 Highlights
- CCC follow-up concerning taxonomic specificity, vertical surfaces, and post-construction monitoring requirements as defined by the CDP

10:30a **BREAK**

10:45a **MHMMP Outline Review & Discussion**

The group will continue using Appendix A (Outline – Summarized Version) as a foundation for the working discussion over the remainder of the day. Please bring your copies from the previous meeting – we will also have a few extras available at the meeting. Topics flagged for the day's discussion include:

- Physical beach monitoring, sand management activities, and geomorphology
- Reference sites (continued from previous meeting) per habitat
- Revisit criteria for characterizing “adverse impacts”
- Subtidal habitats

Lunch will be provided again (\$15pp for agency personnel), so that discussions can continue while making the most of the in-person gathering. At some point mid-afternoon, we'll also take another 15 minute break.

4:15p **Wrap-Up & Next Steps**

Lauren Garske-Garcia & Jonna Engel, California Coastal Commission

Broad Beach Restoration Project:

MHMMP Meeting #4 Highlights (revised)

From Friday, July 15th, 2016 in Long Beach

- CCC technical staff followed-up on several items from the previous meeting:
 - **Level of taxonomic interest for monitoring:** functional groups
 - **Whether vertical surfaces are expected to be addressed via monitoring:** yes, considered important and highly susceptible to sand scour so need to be included
 - **Inconsistency within the CDP concerning monitoring end-date:** development (including backpassing and other sand management activities) under the permit is allowed until October 2015, but marine monitoring is expected for 10-years following the completion of the initial sand replenishment event (projected: 2017)
- Concerns expressed around changes to jurisdictional boundaries as a result of the project, including Marine Protected Area boundaries; agency partners to investigate.
- CCC technical staff will work on clarifying with management and legal counsel whether mitigation may be required for adverse impacts within the footprint permitted for sand placement. The permit implies that mitigation may be required for adverse impacts within the footprint that are associated with the change in sand grain; however, this is not clearly stated.
- Sand dollars were found in the Broad Beach subtidal during recent ground-truthing efforts but are not appearing with the expected signal in the remote-sensing – consultants will continue to investigate, to determine whether there are sand dollar beds or simply a scattering of individuals. Definition of what constitutes a bed needs to be specified.
- Eelgrass beds off Lechuza Point were recently examined and appeared to have been in ~~anomalously~~ poor condition (e.g., leaves buried, rhizomes exposed at the surface); the beds at Leo Carillo and El Pescador do not appear to have been as affected. Speculated that unusual wave energy has impacted this area and concerns were raised about how larger sand grains may further impact eelgrass at this site.
- Extended discussion concerning physical monitoring program for Broad Beach (under CDP Special Condition 4), to provide perspective for development of MHMMP, understanding of triggers for sand management activities, expected changes to geomorphology. Project sand specs also briefly discussed (under CDP Special Condition 8).
 - Ecological considerations include changes to size and shape of interstitial habitat including porosity, organic content, and potential for anoxic conditions. Interstitial space is not considered in the physical monitoring and therefore, may be important to incorporate within MHMMP. Timing of monitoring relative to sand management activities will also need to be considered.
- Criteria for reference site selection were laid out and rationale for choosing Leo Carillo and El Pescador was explained, considered probably appropriate. Uncertainty as to whether these will adequately track patterns at Broad Beach remain so alternatives for a basis of evaluation need to be developed in case neither site does – these might involve cycling-in additional reference sites as done in Puget Sound, attribution of change to specific drivers, or the less-desirable approach of simply comparing conditions before and after construction at Broad Beach (independent of reference sites). Over-sampling initially to ensure securing appropriate reference site(s)

and then subsequently scaling-back to manage costs seems to be too costly at this stage, though it would provide a better chance of getting good data from the references needed. Consultants to propose Plans B & C.

- Other data sources suggested for consideration: Landsat data (kelp layer available at 2-week intervals since 1984), those from Dan Pondella's group, SCWRP, and the ASBS. Also, for wave models, custom CDIP or Surfline archives may prove informative since extremes will be likely drivers of impact (vs. means).
- Extended discussion concerning eelgrass habitat, including use of CEMP and its place within the CDP and other permits. Other agencies likely to rely on CEMP; CCC to consider whether additional metrics may be appropriate in this situation, given that CEMP was developed for more general/broad application and with respect to habitat loss than with cases like BBRP in-mind, where sub-lethal impacts may occur but are of concern.
- In mapping, delineated 3.7ac shell hash but considering this to reflect energy features as opposed to "habitat". General agreement that the biological relevance of shell hash is probably negligible in this situation so no specific monitoring (beyond mapping) is necessary.
- Known challenges with sampling shallow subtidal (10-15 ft) discussed and considered limiting; however, mapping can be reasonably done. Habitat data ~~will~~could be inferred from sampling completed on either side of the surf zone, or there may be a subset of data available from sampling.
- Began discussion concerning indicator species selection for monitoring – table for intertidal species presented, which seemed reasonable but was not necessarily finalized; a similar table will be developed for consideration of subtidal habitats at the next meeting. To be continued...
- Many important topics remain to be discussed, including:
 - Indicator species (continued)
 - Sampling and census plan details
 - Definition of "adverse impacts" by habitat, by metric
 - Mechanism for assessing "adverse impacts"
 - Mitigation options, including handling of time-lags

Broad Beach Restoration Project:

MHMMP Meeting #5

WHEN: July 22, 2016 | 9am-5pm

LOCATION: Moffatt & Nichol - 3780 Kilroy Airport Way #600, Long Beach, CA 90806

CONFERENCE CALL-IN: 1-888-308-5230, **MEETING ID:** 25109

AGENDA

9:00a **Introductions & Brief Updates**

All participants will have an opportunity to contribute

9:30a **MHMMP Meeting #4 Recap & Follow-Up Items**

Lauren Garske-Garcia, California Coastal Commission

- Review Meeting #4 Highlights
- CCC follow-up on various items

10:30a **BREAK**

10:45a **MHMMP Outline Review & Discussion**

The group will continue referencing Appendix A (Outline – Summarized Version) as a foundation for the working discussion over the remainder of the day. Please bring your copies from the previous meeting – we will also have a few extras available at the meeting. Topics flagged for the day's discussion include:

- Continuation of indicator species selections
- Details of the sampling and census plan (methods, schedules, specific variables)
- Begin by-habitat discussion of “adverse impacts”

Lunch will be provided again (\$15pp for agency personnel), so that discussions can continue while making the most of the in-person gathering. At some point mid-afternoon, we'll also take another 15 minute break.

4:15p **Wrap-Up & Next Steps**

Lauren Garske-Garcia, California Coastal Commission

Broad Beach Restoration Project:

MHMMP Meeting #5 Highlights (revised)

From Friday, July 22nd, 2016 in Long Beach

- CCC technical staff will continue to work on follow-up concerning several items:
 - Whether adverse impacts within the BBRP footprint permitted for sand augmentation are considered subject to mitigation (this is implied within the CDP in the context of sand grain size effects)
 - Whether any metrics beyond those outlined in CEMP will be required by CCC for eelgrass habitat monitoring (CEMP itself has been agreed to by CCC and other agencies) – additional metrics may include something like blade height or epiphytic load
 - Determination of level of specificity needed for sandy beach monitoring in spring (specifically, as ecological conditions are more variable/less informative in this season)
- The SAP emphasized that given the uncertain range and nature of potential project-related impacts, monitoring variables, whether based on patterns of observation or the mechanics of sand-driven impacts, can and should be used to inform conclusions. Not all variables need be strictly tied to a well-understood mechanism with respect to sanding to demonstrate whether marine ecosystems are being affected by the project; as a crude instrument, sand does not discriminate which species it will affect and selecting indicators to represent functional groups is an appropriate approach. By including species not expected to be affected by sand, we provide a buffer to fairly judge whether the ecosystem as a whole is being impacted. Coincidence of patterns on time-space scales and regional signatures can be used to differentiate whether or not impacts are project-related.
- **REMINDER:** State & Feds assume an impact is project-related unless the applicant can demonstrate compelling evidence to the contrary.
- Use of a quantitative video alternative was suggested to capture data while reducing expensive field time (*e.g.*, one diver films underwater while others gather data). Consultants were not necessarily opposed to this video, and could potentially use GoPro cameras on divers but ~~value of such data would need to be considered~~ use would be for qualitative archives rather than quantitative analyses.
- Functional groups for monitoring need to be defined before selecting representative species for sampling. Foundational habitat species also need to be monitored but for the purposes of informing specific interests rather than use as indicators of overall habitat condition – for example, eelgrass to inform specific mitigation policies and help to inform structural habitat availability.
- CCC technical staff clarified that the adverse impacts assessment at Year 5 will be based on an integrated measure to account for temporal impacts each year. Thus, the comparison is not simply pre-construction condition versus status at Year 5 relative to the reference sites, but rather, the pre-construction condition versus status at Year 1, Year 2, Year 3, Year 4, and Year 5 relative to the reference sites with impacts being additive (units: space~~/~~time) versus strictly spatial. This is consistent with CCC practice (per CCC legal counsel) as well as that done at other agencies represented in the room.
- CCC technical staff clarified that adverse impact assessments would be done by each habitat, as indicated in the CDP. Based on input from the agencies and SAP, there may be a single or multiple standards per habitat. Where there are multiple standards per habitat, there will be an allowance for some fraction of these to be the lowest-

performing relative to reference sites based on random chance. This will be discussed in further detail at the next meeting.

- Existing lists of candidate species to monitor, as provided by consultants, were discussed – these were based on CRANE protocols but as noted by the group, CRANE serves a distinct purpose and does not capture everything of potential interest/relevance to this effort so species not on this list should also be considered.
- The following details per habitat were discussed and reflect the collective guidance on variables to monitor. In some cases, the consultants will need to continue developing the details as they draft the MHMMP and agencies may need to follow-up on specific issues unresolved at the meeting. All of this remains subject to final review but was initially and mostly agreed upon.

ROCKY SUBTIDAL HABITAT W/ KELP

- Functional groups
 - **Canopy algae:** *Macrocystis* including stipe counts
 - **Sub-canopy algae:** *Pterygophora* and other algae; ~~also include *Muricea*~~
 - **Benthic algae:** crustose & coralline species and foliose & erect species (as % cover); ~~s~~
 - **Sub-adult *Macrocystis*** (counting 10-30 cm size class)
 - **Suspension & filter feeders:** tunicates, sponges, bryozoans, anemones, *etc.* (as % cover)
 - ***Muricea*** (counting; also, attempt % cover though this may be challenging given erect growth habit?)
 - **Grazers:** *Strongylocentrotus purpuratus*; *S. franciscanus* all urchin species observed (**NOTE:** grazers will not be assessed, monitoring as potential alternative driver of habitat change)
- Additionally, structural metrics such as substrate, elevation, *etc.* should be included to help evaluate the physical environment
- Note that use of side-scan sonar to assess holdfasts in densely forested areas can present a practical challenge ~~for this technology~~; works better along periphery and in low-density forests – points to the value of diver surveys for aspects of this data set. (**NOTE:** CSLC permit applications have been submitted and not anticipating any challenges with receiving in time to conduct fall monitoring.)
- Concern with use of 10m² radial plots for *Macrocystis* and likelihood of recording too many zeros – alternative suggestion for using plots to monitor and if no kelp occurs within the plot, diver could swim out to the most proximate kelp thallus to count stipes and record the distance from the plot to get a new radius for calculating density.
- Advised to avoid stratified sampling design and instead track relevant attributes (on-shore vs. off-shore, metrics of relief, *etc.*) so that these can be used later to interpret observations. Sampling should be proportional and even over the available habitat since this will more accurately represent the area to be evaluated for potential effects and thus, translate into mitigation assessment.

ROCKY SUBTIDAL HABITAT W/O KELP

- Same as rocky subtidal habitat w/ kelp except that the canopy group is excluded

SURFGRASS

- Given its distribution, it may be appropriate to treat all surfgrass as the total extent including both intertidal and subtidal as opposed to subsampling (analogous to eelgrass approach).
- Phyllospadix presents challenges given its depth range, orientation and movement but need to get at % cover and also concerned with its quality. May be able to get % cover somewhat w/ UAV. For reference sites where it is more abundant (especially Leo Carillo), would fly smaller areas selected for their similarity to Broad Beach to use in comparisons.

EELGRASS

- CEMP approach is satisfactory for all agencies though CCC has communicated that it may ask for additional metrics beyond CEMP (within reason) and will follow-up.

SUBTIDAL W/ UNCONSOLIDATED SUBSTRATE

- Extended discussion concerning whether/how to monitor this vast area (~300 acres) given general paucity of readily available species for ecological sampling (concern w/ zeros in data set). However, generally agreed that substrate alone insufficient and need to have something as an indicator for changes to the ecosystem – best to avoid costly sampling of infauna, if at all possible.
 - Nature of sand dollar populations remain TBD – historically, only scattered individuals observed at Broad Beach (per Noel Davis) but Zuma has had proper sand dollar beds. Recent observations by consultants to be investigated further.
 - Pismo clams have ~~not~~ been observed in recent history at Broad Beach (per Noel Davis), ~~nor in the course of this effort~~ but only in low numbers, which are too low for monitoring purposes.
 - *Renilla* and sea pens generally occur further offshore than area of interest, so unlikely to serve well as indicators.
 - *Diopatra* appears to be suitable based on 2014 CRANE-style survey presented, occurring in deep reefs (sand channels) as well as the larger sand habitat area. Standard deviations suggest it is fairly consistent. Whether the organism is alive or not probably not critical given that deteriorating material will not persist for long so we can assume changes are real.
- Suggested that to save expenses associated with dive surveys in this expansive area, could use ROV to run video transects for later lab analysis of *Diopatra* as well as any other easily recognizable macroinvertebrate species. (CLARIFICATION: ROVs need to operate at a speed faster than what allows for good identification of species; if slowed to enable the latter, camera pulsates making it equally difficult to review video.) Alternatively, divers might swim from edge of reef sites some distance into sand habitat but this would not capture the extent of area of interest evenly.

ROCKY INTERTIDAL (Lechuza Point & Boulder Field)

- Functional groups for % cover evaluation using UAV & spectral analyses
 - **Barnacles + mussels** (combination reduces error since mottling is difficult to tease apart while combined pattern is distinctive)
 - ~~Phyllospadix~~ (treat as stand-alone, not as an indicator)

- **Red turf algae** (**CLARIFICATION:** there are two groups within this – A) the ephemeral low-relief species near the sand interface, and B) the persistent species higher on the intertidal bench. Consultants not sure if they can tease these apart and will work with the spectral analyses to determine what's possible; hesitant to separate for interpretation based on spatial orientation for concern of corrupting the assignment process. Needs ground-truthing.)
- ~~**Porphyra and other foliose red algae**~~ (spectra distinct from red turf group)
- **Furoid and foliose red algae**
- **Ephemeral green algae**
- **Rock (or spat)**
- **Sand**
- ~~**Phyllospadix** presents challenges given its depth range, orientation and movement but need to get at % cover and also concerned with its quality. May be able to get % cover somewhat w/ UAV. For reference sites where it is more abundant (especially Leo Carillo), would fly smaller areas selected for their similarity to Broad Beach to use in comparisons.~~
- Vertical elements will need to be sampled, as census approaches are overly-burdensome at this time; the two-dimensional images incorporate some wrap-around but extremely vertical surfaces are hard to capture and consultants are not confident in the UAV's accuracy relative to true elevation (yet). Fraction of vertical surfaces relative to all else remains TBD.
- All functional groups listed above to be sampled *in situ* to compare against UAV/spectral data. In addition, the following should also be considered for sampling:
 - **Haliotis** presents a particular concern given its reliance on cracks as habitat, which would likely be inundated with sand early on. Rugosity will be an important tool for evaluating this but at present, consultants unsure of whether scale of DEMs will be satisfactory for addressing this issue via remote-sensing. May be better to select areas with features of interest and then sample *in situ* in those places; may also be able to determine loss of crack habitat by increase of sand coverage.
 - **NOTE:** Loss of even a single black abalone would constitute take and trigger a Section 7 consultation for ESA.
 - **Lottia, Pisaster** and other low-mobility species of interest could be incorporated in timed or otherwise targeted surveys for *Haliotis*, while requiring little additional effort - recommended.
 - **Phragmatopoma** (along with barnacles + mussels) – ephemeral but potentially informative & may be able to train spectral tools to look for pattern signature (as done for eelgrass); TBD – not much occurring at Broad Beach but common at reference sites
 - ~~**Furoid algae** (move to UAV sampling above)~~
 - **Egregia** is challenging to separate out w/ spectral – occurs a bit at Broad Beach but often buried, though still believed to be important enough to warrant effort.
 - ~~**Invertebrate spat** (interpreted in UAV data as rock)~~

SANDY BEACH

- Monitoring approach seems to be generally fine based on discussions at previous meetings.
- Supralittoral will be captured within transects & cores, which extend above the wrack line.
- Though the dune restoration & monitoring team is also considering use of UAVs and monitoring wrack, it was determined that since it does not take long and consistency in method reduces error when comparing against reference sites, this team would carry out wrack monitoring for their own purposes.
- CDP calls for monitoring of grunions and shorebirds prior to construction, though these have not been observed at Broad Beach in recent history, probably due to the lack of sufficient beach. Snowy plovers have been observed at Zuma and may move into Broad Beach in the future (keep in mind that monitoring may need to be added if they do).
- Sand management activities (backpassing and nourishment events limited by CDP to beginning after October 1; initial sand augmentation event will take 3-5 months.
 - With consideration of the above windows and tides, fall sampling will generally need to occur in October (with all else chasing the beach sampling) as set by the low tides and light requirements for UAV data capture. Coordination across the many moving parts of the project is key and needs to be made explicit in MHMMP so as to avoid interference between construction activities and completion of ecological monitoring events.
 - Spring beach monitoring will probably be best to do in April, though there is concern with the situation at Lechuza Point if there is no sand. Later in the approved season becomes challenged by poorer tides but may be less variable with respect to recruitment.
- With respect to differences in spring and fall monitoring efforts as relates to the CDP requirement and biological relevance, beholden to requirement to monitor biology both seasons. However, monitoring does not necessarily have to be the same across the two – for example, it may be acceptable to reduce the intensity of effort during spring monitoring relative to the fall.
- CDP requires detection of 80% of species for this habitat – per Mark Page, expect 40-45 species total so that makes 32-36 the target; data suggests ± 19 species occur below the wrack line and residual is from wrack. Standards for this habitat are notably more stringent than in other habitats and question arose whether use of functional groups would be acceptable as opposed to requiring (costly) expert sorting to genus or species level – CCC to discuss internally before committing to an interpretation; same for USACE. With appreciation for balancing expense with data utility, will consider mindfully.
 - There were concerns with how to composite data for interpretation – spring event might be examined as replicates at the scale of transects and subsampled for something like species richness only (omitting abundance); could reasonably build a species accumulation curve. Discussion to be continued... Fall sampling would include complete sampling as previously outlined.
- Consultants directed to focus on writing – summary tables at this stage will not be sufficient and the plan needs to be written out such that a person unfamiliar with the project but trained in a relevant field could pick it up and implement it. Agencies and SAP will begin to review this as it is delivered. Completed draft segments are

acceptable for now (*e.g.*, reference sites, specific habitat plans) but everyone will need a full draft final document for comprehensive review as well.

- Next meetings – anticipating two more, with one focused on adverse impacts and another as a final pre-submittal discussion to respond to lingering questions, hear a full presentation of the plan to be provided, *etc.* One of these may be done as a conference call and the other in-person – CCC will follow-up with polls for potential dates.
- In prep for the next meeting on adverse impact definition and assessment, please refer to p13-14 of the 2009 SONGS Monitoring Plan previously circulated by CCC on July 12th. The updated 2015 version of this plan is available [here](#) as well, though this specific content of interest has not changed.
- Moffatt & Nichol asked participants to consider whether they would be willing to have future meetings recorded (to assist in preparing verbatim meeting notes); audio recordings would be handled (or destroyed) as participants require thereafter. It was recognized that agencies may have policies limiting the use of this option. It was also acknowledged that given the working nature of these meetings, recording may lead to measured rather than free and open discussions, which could inhibit progress.
- In addition to the continued items, the following topics remain to be discussed in-depth:
 - Definition of “adverse impacts” by habitat, by metric
 - Mechanism for assessing “adverse impacts”
 - Mitigation options, including handling of time-lags

Broad Beach Restoration Project:

MHMMP Meeting #6 Highlights

From Friday, August 12th, 2016 in Long Beach

- **CCC staff to consider and/or follow-up on the following items:**
 - Whether adverse impacts within the BBRP footprint permitted for sand augmentation are considered subject to future compensatory mitigation (this is implied within the CDP in the context of sand grain size effects); contrasting interpretations of previous discussions will be brought back to CCC legal and management for further discussion with the GHAD.
 - Provide revised versions of Meetings #3-5 Highlights based on follow-up discussions
 - Level of statistical significance for shifts in grain size composition to use as trigger for infauna core analysis (subtidal habitat with unconsolidated substrate)
 - Level of acceptable habitat loss from a regulatory standpoint, which will be used to determine appropriate p-values for assessment tests (refer to statistical discussion below)
- Consultants clarified that they would *not* be using quantitative video methods, but possibly gathering qualitative video for archive use (only).
- Discussion concerning *Phyllospadix*: see Galst & Anderson 2008 paper concerning density measures; deliberation on use of polygons vs. rasters for analyses given the challenge of plant orientation variability; suggested that error rates could be calculated from multiple UAV flights and would be critical for future interpretation of data; extent of sand cover should be interpretable through alternate pixel classification as sand or rock, but detecting depth of cover will not be feasible.
- **To be continued:** whether kelp will be treated as a foundational habitat species unto itself, as one of indicators in the suite for kelp forest habitat, or both. Some perspectives were shared but the topic was tabled until it could be specifically focused upon. Consultants believe it should be part of the suite only, not a separate metric, because it is not specified as eelgrass was in the CDP. Multiple parties expressed a different perspective, including the points that kelp is as foundational a species as it gets, and that it is an important proxy for other things that are not being sampled (like fish). However, how it is used in assessment would not change how it is monitored.
 - Four metrics for kelp, telling of different aspects of ecosystem: 1) mapping extent (census), 2) stipes (count), 3) canopy via remote-sensing (census), and 4) sub-adults (count)
- **To be continued:** whether rocky subtidal habitat *without kelp* would be assessed separately or combined with rocky subtidal habitat *with kelp*. On one hand, this could affect how habitat conversions are evaluated and on the other, it could alleviate some of the spatial challenges given the patchiness of the substrate and habitats as well as the expense of sampling (in theory, could reduce needed sampling for these by half and thus yield significant cost savings as well).
 - Noted that mapping error would likely be reduced if habitats combined but that variance would be attached to kelp, now being subsampled as opposed to censused.
- **Meeting #5 Highlights revised to reflect today's conversation concerning elements per habitat for monitoring – more extensive discussions related to those are better reflected herein.**
- Merkel & Associates have applied for the necessary CSLC permit to conduct side-scan sonar surveys; expecting to be moved to the consent calendar for the October hearing → should be able to sample this fall season.

- For eelgrass, CCC reported that after discussing internally and hearing perspective of various parties, particularly eelgrass experts in this group, it would adopt CEMP approach with two notes:
 - Regardless of the timing of final development activity under this permit (allowed until 2025), eelgrass monitoring would need to be continued through the full 10 years of the MHMMP (until 2027). Since CEMP calls for monitoring post-construction at 30 days, 1 year and 2 years, this aligns with the schedule across all habitats naturally.
 - It was observed that CEMP is relatively more relaxed concerning density changes than how CCC will treat all other changes across the habitats (*i.e.*, up to 25% in CEMP vs. any statistically significant change from the observed envelope of reference sites). At the same time, it was pointed out that the no net loss criteria in CEMP is stricter than the assessment criteria being applied under the CDP, and that CEMP also uses a 90/10 power requirement as opposed to the 80/20 here.
 - There was some consideration of how these may balance out to meet the overall goal, and NMFS expressed openness to alternative approaches if warranted, particularly given the unique nature of this project.
 - Noted that CEMPs guidance on use of % cover intended to deal with patch dynamics but can be problematic since data interpretation is dependent on the survey methods used to define the envelope
- Subtidal habitat with unconsolidated substrate to be monitored both Spring and Fall, for consistency with all other habitats in the permit.
 - Sand dollar populations at Broad Beach were examined during follow-up by the consultants – densities were confirmed to be too low ($1\text{-}30\text{m}^{-2}$) to provide mapping signatures.
 - Extended discussion concerning alternative sampling plan for this habitat – as opposed to use of *Diopatra*, it was suggested to use sand grain size analyses and simultaneously collect infauna cores for archiving. If sand grain size was determined to be significantly different from its native state, this would trigger analyses of archived samples to evaluate changes in infauna species richness. This would allow for monitoring relevant biology potentially driven by changes in the physical environment while also saving costs associated with processing infauna samples.
 - Zone of closure is at approximately 30 ft but large storms (*i.e.*, 25-y storm) will carry sand beyond this
 - Native sand D50 = 0.24 mm; coarsest material is currently at 0 ft MLLW (= 0.42 mm); +6 ft MLLW = 0.30 mm, -6 ft MLLW = 0.32 mm, -12 ft MLLW = 0.26 mm, -18 ft MLLW = 0.15 mm, -24 ft MLLW = 0.14 mm, -30 ft MLLW = 0.13 mm
 - Expect shifts in species assemblages at 5-ft intervals
 - Challenging to sample shallower than 15-20 ft, consultants would prefer to begin at 20 ft
 - Subtidal points would align with the onshore transects so that data between these could be interpolated
 - Trigger to analyze infauna cores would be a shift in grain size *composition* (not simply the D50), set at some level of statistical significance (CCC to specify this value but proceed with 1 standard deviation as a placeholder value)
 - Could use the grain size data to map areas of change (relative to pre-construction condition), focus on those areas for subsequent archived infauna sample analyses
- **To be continued:** in general, need to determine how multiple components per habitat will be evaluated as a suite (*e.g.*, mean represented as some spatial unit), and how acre-years of habitat lost will be converted to mitigation units and clarify what the final assumption is come Year 10 (*i.e.*, whether change is interpreted as temporary or permanent, if the applicant will be able to choose to continue monitoring to prove losses are not

permanent, whether responsibilities are extended through an amendment). All of this, as well as the integrated assessment approach (with annual basis) and accounting for temporal lags in mitigation calculations need to be written up (Federal agencies' requirements may differ from State agencies').

- Primer provided on approaches to impact assessment based on sampling and census methods.
 - Noted that the CDP does not make the distinction of the design criteria's 20% change for detection as being absolute versus relative, though the preference has been to focus on relative changes in the MHMMP discussions.
 - Effect size is the observed difference between Broad Beach and the reference sites for a given metric
 - The greater the effect size, the easier it is to statistically confirm that the effect is real; the smaller the effect size, the more data points (n) needed to do so.
 - Relaxing α (AKA critical p-value, or type I error) allows for fewer data points (n)
 - See Figure 3 presented in SONGS monitoring plan (previously provided) for graphical explanation of the relationship between effect size, α , and assessment of adverse impacts – this approach is proposed for application at Broad Beach
 - Concerning census methods, need to determine the symmetry of the error structure (consultants to do and note that this may differ by habitat) as well as the level of allowable error rate or level of acceptable habitat loss from a regulatory standpoint (CCC needs to specify expectations and the latter two options are the same in practice but differ in semantics).
 - As placeholder, group recommended a 10% error rate in census methods across all habitats but with caveat that this would likely change with better information on a per-habitat basis and understanding of the extent of loss that may go undetected under such a value.
- **Reminder:** assessments to be done per habitat relative to reference sites (*e.g.*, suites of indicators per habitat considered as opposed to each indicator or Broad Beach as a whole).
 - CCC expressed that although policy is generally to pursue in-kind mitigation, willing to consider small and incremental changes tabulated and bundled into a single requirement for ease of managing.
- Discussion concerning whether mitigation could potentially be required for impacts within the permitted footprint area of the beach – contrasting interpretations were given (CCC management and GHAD will continue this as a separate discussion). It was suggested that the applicant should receive credit for functional lift if also subject to compensatory mitigation, or that data should be strictly used to only inform adaptive management. (NOTE: though this may be appropriate at other agencies, CCC does not generally award credit for “lift” but may require compensatory mitigation.) Some concern also raised for self-mitigation of the site as a whole.
- Decision that for sandy beach habitat, use of rarefaction curves done on a transect basis for Spring and Fall is appropriate and acceptable (allows for seasonal comparisons); full sampling expected in Fall season as well (allows for interannual comparisons).
- **To be continued:** for rocky intertidal habitats, consulting team challenged previous meeting's conclusion that monitoring should include *Haliotis* and other low-mobility invertebrates. Key parties had already left the meeting so this will be revisited during the next meeting.
- **Moving forward...**
 - With respect to sampling design, largely understood and remaining conversations can mostly transition to email for resolution
 - Meetings will continue to focus on adverse impact assessment and mitigation issues - still need to discuss habitat conversion and many other aspects

Broad Beach Restoration Project:

MHMMP Meeting #7

WHEN: August 26, 2016 | 9am-5pm

POSTPONED

LOCATION: Moffatt & Nichol - 3780 Kilroy Airport Way #600, Long Beach, CA 90806

CONFERENCE CALL-IN: 1-888-308-5230, **MEETING ID:** 25109

AGENDA

9:00a **Introductions & Brief Updates**

All participants will have an opportunity to contribute

9:30a **MHMMP Meeting #6 Recap & Follow-Up Items**

Jonna Engel & Lauren Garske-Garcia, California Coastal Commission

- Review Meeting #6 Highlights
- CCC follow-up on:
 - Impacts within the permitted footprint area
 - Update on *Dune Habitat Restoration and Enhancement Plan*

10:30a **BREAK***

10:45a **MHMMP Adverse Impacts Discussion**

The day will be dedicated to continuing the adverse impacts discussion from the last meeting, though if time allows, we may also get into potential mitigation options. All participants are invited to contribute.

Lunch will be provided again (\$15pp for agency personnel), so that discussions can continue while making the most of the in-person gathering. At some point mid-afternoon, we'll also take another 15 minute break.

4:15p **Wrap-Up & Next Steps**

Lauren Garske-Garcia, California Coastal Commission

BROAD BEACH GEOLOGIC HAZARD ABATEMENT DISTRICT

c/o Elkins Kalt Weintraub Reuben Gartside LLP

2049 Century Park East, Suite 2700

Los Angeles, CA 90067

(310) 746-4412

August 23, 2016

Broad Beach Nourishment and Dune Restoration Project Calculating Project Impacts

The proposed Broad Beach Restoration Project (Project) is located on Broad Beach, in the northwest portion of the County of Los Angeles within the City of Malibu, California. As referenced in the CCC's Notice of Intent to Issue CDP #4-15-0390 (CDP), the Project area consists of the shoreline area fronting approximately 124 residences and a beach club spanning approximately from Lechuza Point to Trancas Creek. Several recent studies of the coastal region encompassing Broad Beach have identified a trend of continued erosion without any significant recovery in beach width since the early 1970s. Broad Beach currently has a very narrow ribbon of sand visible primarily at low tide, but inundated at high tide. Without the restoration project, the beach would continue to erode, public access would be minimized, and existing structures would remain unprotected.

Project Purpose and Goals

The Broad Beach Geologic Hazard District (BBGHAD or Applicant) proposes the Project with the purpose of protecting the shoreline. The following Project objectives have been established:

- Provide shoreline protection for existing structures;
- Restore public beach resources;
- Restore an eroded dune system;
- Create new beach habitat; and,
- Nourish downcoast beaches.

This Project proposes placement of 300,000 cubic yards (cy) of sand approximately every five (5) years, dune restoration, realigned and fortified rock revetment, backpassing to occur once a year at most, and interim and erosion nourishments to maintain Project goals.

Project Avoidance Measures Lessen Impacts

The avoidance and minimization measures deployed prior to nourishment activities decrease adverse impacts. Therefore, compensatory mitigation should not be required. Such proactive measures include:

- Avoidance of directly filling the sensitive west end and adjacent boulder field;
- The discharge is limited to the upland and intertidal zones;
- The discharge avoids impacts to kelp and eelgrass beds;
- Avoidance of an off-shore/marine disposal site (the amount of fill is limited to the minimum extent required for property protection, public safety and beach nourishment);
- Discharge of material (sand) is similar to existing substrate at discharge location and meets beach nourishment/public health standards (e.g., sand on sand discharge); and,
- Avoidance of significant changes in water fluctuations, water chemistry and conveyance. Based on the type of Project (shoreline protection/beach nourishment), the introduction of toxic metals and pathogenic organisms is not proposed.
- The sand on sand discharge maintains physiochemical conditions as no new pollutants are introduced;
- The discharge protects physiochemical conditions through the protection of property (i.e., septic systems) that would otherwise threaten existing water quality conditions if exposed to wave caused inundation;
- Given the quality sand on sand replenishment, no additional treatment is required;

- The design of the preferred Alternative 4C and follow up nourishments is based on methods that limit future erosion, slumping and leaching of materials (i.e., from septic systems);
- Appropriate use (including training and proper maintenance) of equipment/machinery during sand placement;
- Layering of sediment to maintain the natural beach and shoreline contours;
- Utilizing existing and natural currents and circulation patterns to the fullest extent possible for the gradual dispersion of sand;
- A reduced Project footprint for discharge, which facilitates the overall habitat at the Project's west end, decreased turbidity levels, and better light penetration for organisms;
- Set limitations for the amount of discharge at a given time;
- Avoidance of changes to water currents and circulation patterns;
- Timing of discharge outside of spawning or migration seasons;
- The preferred Alternative 4C protects and enhances existing beach uses and aesthetics of the shoreline;
- Beach access is enhanced and improved along with existing previously-granted lateral access easements at certain parcels for the users experience through “green” shoreline protection;
- Protection of the public sandy beach, which is currently decreasing and almost non-existent as a result of inundation (indeed, the Project serves as a mitigation measure with respect to sea level rise);
- Avoidance of a disposal site;
- Appropriate timing, where feasible, of discharges to avoid the peak tourist season when human recreational activity at the Project site is at its highest (this measure also balances

the discharge timing with respect to water quality, tides, and spawning/breeding seasons); and,

- Increased protection of adjoining water/wastewater systems (i.e., septic systems).

Beach Nourishment Programs Constitute Mitigation

The California Coastal Commission declared that the Project is the least environmentally damaging alternative. The proposed Project is also consistent with the Commission's recently approved Sea Level Rise Policy Guidance document. The Commission recommends "soft" armoring for the protection of the coastline as it prevents the need for a permanent shoreline protective devices. In fact, the Commission has recommended that local jurisdictions establish beach nourishment programs. Over the years, the programs have included suggested protocols, criteria for design, construction and management, sand compatibility, monitoring programs, seasonal restrictions and environmentally preferred locations for deposits. Compensatory mitigation for sand on sand placement has not been a component of any such beach nourishment program. Indeed, the nourishment is the mitigation as it compensates for the loss of historic beach. Further, compensatory mitigation requirements would deter such soft armoring approaches along California's coastline as the nourishment "footprints" are significantly larger than other alternatives (i.e., sea walls, hard/grey armoring, etc.).

To date, beach nourishment activities have not required compensatory mitigation, but rather adaptive management, which allows permittees to respond to monitoring data. This monitoring and management approach has proven successful, even for large-scale nourishment operations (i.e., projects with greater than 1 million cubic yards of sand), which have not included compensatory mitigation for the project footprints. Of the few nourishment projects that have had mitigation for direct sand nourishment, the mitigation was focused on the protection of existing habitat (for the least tern/plover) where predator controls were deployed. As another example, compensatory mitigation was required for off-site indirect impacts in connection with a 2012 San Diego County beach nourishment project. This is similar to the requirements of the proposed Project, where mitigation would arise only if monitoring identifies impacts to adjacent areas-- **and not areas within the Project footprint**.

Reference Sites Utilized for Monitoring Purposes

The independent Science Advisory Panel (SAP) created by CDP has selected reference sites for the Project to track indirect Project effects on marine areas. The BBGHAD has agreed to fund extensive monitoring at the reference sites to facilitate comparison of the Project site to higher-value beaches. **However, the purpose and need of the Project is not to create a pristine beach.** The Project site has lost significant amount of beach over decades and is considered a highly degraded sandy beach. This is evidenced by a lack of “dry beach” and wrack, and a corresponding increase of wetted area and severe erosion. **Given this baseline condition, the Project site’s functions and values are expected to greatly increase.** Examples of increased functions and values include wave dedication, filtration, nesting sites and recreation. An increase in even some of these functions is significant and such increases will be monitored. Reference sites may be used to highlight what functions may be viable. However, since maintenance, periodic nourishments and backpassing are expected to occur at the Project site, some functions may not reach the full representation of the Project site. Overall, the functional gain and lift within the Project site outweighs the potential shortcomings when compared to a mature, pristine reference site.

According to the CDP, a Marine Habitat Monitoring and Mitigation Plan is required (Condition 6A). The Plan would include subtidal rocky habitats, subtidal habitats comprised of unconsolidated sediment, rocky intertidal and supralittoral and intertidal sandy beach habitats. In accordance with CDP Special Condition 6, “the monitoring and mitigation plan shall provide an overall framework to guide monitoring of these marine habitats in and immediately adjacent to the Project footprint as well as marine habitat reference sites, and provide mitigation options for potential impacts to subtidal and intertidal marine habitats.”¹ **Although the beaches will be**

¹ The exact language of the subject language from Special Condition #6 follows:

monitored and compared to reference sites, mitigation for the restored beaches is not required. Condition 6E indicates that the mitigation ratio for impacts upon subtidal rocky or intertidal rock habitat shall be mitigated at a minimum of 4:1. Adverse impacts upon eelgrass shall be mitigated according to the California Eelgrass Mitigation Policy.” **Mitigation for beaches, especially the footprint of the Project, is not required under Condition 6.**

In summary, the BBGHAD requests a plain English interpretation of Special Condition 6. This condition suggests that a desire to understand “whether the portion of Broad Beach covered by quarry sand develops a sandy beach macroinvertebrate fauna similar to the reference beach”. This condition is explicitly separated from the reference to determining whether the “project adversely impacts the beach ecosystem west and east of the project”.

Taken together, these provisions suggest twin SAP goals of studying and understanding the effects of the BBGHAD's beach restoration and determining potentially adverse impacts. The SAP has extensively discussed these twin goals and the issue of quantifying Project impacts during multiple SAP meetings. In the first meeting, SAP Member Robert Hoffman asked the intent of the language about the sand beach. Commission staff answered that the provision entails a desire to understand the effects of more coarse than natural sand on the beach as a tool to understand the issue on a more regional basis as well as in connection with future Project permit renewals. Later, the question of quantifying Project impacts arose again and it was discussed as a tool to inform adaptive management actions for the Project in real time and for future permit renewals. Finally, the issue arose again at SAP Meeting #5, but Commission staff did not substantively respond to the question at that time. Instead, Commission staff asserted

The beach monitoring methods must be capable of determining; 1) whether the portion of Broad Beach covered by quarry sand develops a sandy beach macroinvertebrate fauna similar to the reference beaches, and, 2) whether the project adversely impacts the beach ecosystem west and east of the project. The beach monitoring methods must be designed to identify approximately 80% of the organisms present; in order to capture this percentage of the community, approximately 3 square meters of surface area must be surveyed (Schlacher et al. 2008). In order to compare results to past surveys, the beach sampling must employ 10 cm diameter by 20 cm deep cores and sieve the samples using a 1.5mm/1.0mm aperture sieve. This monitoring shall be conducted before construction in the spring and fall and semi-annually in spring and fall for the life of the project at the replenished beach, the reference beaches and the beach west of the replenished beach and the beach east of the replenished beach.

that they would get additional input from additional CCC staff members and inform the SAP of the CCC staff's position. At SAP Meeting #6, CCC staff announced that the beach may be subject to mitigation if it fails to meet performance of regional reference beaches, which have been selected because they are not regularly disturbed. **Adoption of this interpretation would doom the Project.**

In simplest form, the question asked in the SAP Meeting #6 becomes:

If the beach is a "2" today and, after Project implementation, it rises to a "6", but the reference beaches start as "8's" and remain "8's", is the Project a success, a failure, or does it mean that the BBGHAD must provide offsetting mitigation for some impact to sandy intertidal east and west of the Project?"

For the sake of the Project, the BBGHAD strongly hopes that it can deem the Project an unmitigated success if, for example, Broad Beach Beach rises from a "2" to a "6".

Agenda Item 12a

From: [Dorielle A. Hammonds](#)
To: [Dorielle A. Hammonds](#)
Subject: RE: Thoughts on Qualifications for new BBGHAD PM
Date: Thursday, August 25, 2016 12:15:13 PM
Attachments: [image001.png](#)
[image003.png](#)

From: Boudreau, Russ [<mailto:rboudreau@moffattnichol.com>]
Sent: Monday, August 22, 2016 2:24 PM
To: Kenneth A. Ehrlich
Subject: Thoughts on Qualifications for new BBGHAD PM

Ken,

Here are some of my initial thoughts on finding the right candidate to replace Mark Goss as the BBGHAD Project Manager:

- Key areas where need expertise are project logistics, program management, knowledge of the construction industry and how projects get built and paid for.
- I would think potential candidates would be recently retired folks from the construction industry or engineering, or at least familiar with capital improvement projects
- Need knowledge of construction bids, insurance, bonding
- Needs to be strong negotiator and a resume of successfully completed projects. They need to understand the permit process and how important it is to conform to all the conditions, but certainly don't need to be a permit expert. Most of that hard work is done.

I don't have any candidates in mind, but my thought would be to start soliciting some of my construction industry resources to identify potential candidates. Someone who has retired recently from a relatively key position in a construction firm such as Granite Construction or Manson Construction. Or maybe CalTrans? It would be an ideal opportunity for the right person – just have to find them. Certainly can't beat the location which would be a key perk.

Did you consider Dave Hummel?

Russell H. Boudreau, P.E., D.C.E., D.P.E.
VP, Coastal Engineering

3780 Kilroy Airport Way, Ste 600 | Long Beach, CA 90806
T 562. 426. 9551 | C 562.805.3054

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Project No.
8588.001.000

August 19, 2016

Mr. Norton Karno, Chair – Broad Beach GHAD Board of Directors
% Broad Beach GHAD
2919 Valmere Drive
Malibu, CA 90265

Subject: Broad Beach GHAD
Malibu, California

PROPOSAL FOR CONSTRUCTION MANAGEMENT SERVICES

Dear Mr. Karno:

We are pleased to submit this proposal to provide construction management services for the subject project located in Malibu, California. The Broad Beach GHAD (BBGHAD) includes oceanfront parcels located at the base of the Santa Monica Mountains and adjacent to Santa Monica Bay in Malibu, western Los Angeles County, California. Properties within the Trancas Property Owners Association (TPOA), and adjoining and adjacent properties, include those adjacent to Broad Beach, extending from Point Lechuza on the west to Zuma Beach on the east.

Various portions of the beach have been subjected to emergency repair/protective measures in years past due to storms and related erosion events. Although beach width can vary seasonally as well as from year to year, Broad Beach has been consistently narrowing in width since the early 1970s. The historically wide beach has gradually narrowed due to an imbalance in the sediment budget, i.e., more sand has left the beach system over the past 40 years than entered it. Because of the general and continuing narrowing of the beach, protective measures will be implemented. Construction activities in accordance with the BBGHAD Plan of Control include, but are not limited to, the following.

- Beach nourishment and sculpting
- Construction/restoration of dunes and related natural habitat
- Beach drainage improvements

WHY ENGEO?

ENGEO is an employee-owned firm of geotechnical and civil engineers, geologists, hydrologists, environmental professionals, and a large construction services QA/QC team. Founded in 1971, we have California offices located in San Ramon, Oakland, San Francisco, Rocklin, Lathrop, San Jose, Santa Clarita, and Irvine.

Our Mission:

*Cutting-edge
technical
expertise*

*Empower people to
achieve their
potential*

*Elevate our
profession*

Core Values

ENGEOness - The positive selfless commitment to the success of others.

Serve
beyond
expectations

Live with
impeccable
integrity

No bosses,
just servants

Commit to
accountability
and
collaboration in
all we do

ENGEO has more experience in GHAD policy development and law than any other firm in California. In our more than 35 years of GHAD experience, we have been involved in the vast majority of the GHAD properties in California. With a staff of registered Geotechnical Engineers and Certified Engineering Geologists that is second to none, and with over 500 combined years of specific, related experience, Geologic Hazard Abatement is a core business for ENGEO.

We provide a full range of services for construction management and support, ranging from relatively small-scale residential projects to some of the largest, most visible institutional and infrastructure projects in the world. Specifically, in support of GHAD projects that we have formed and/or managed, we have provided construction management for projects ranging from routine maintenance and rehabilitation activities to large geotechnical mitigation programs. Because of our vast experience in forming and managing GHADs, we are uniquely qualified to successfully manage these projects within the regulatory and financial frameworks inherent with GHADs.

When it comes to our service approach, our singular focus on unparalleled client satisfaction above all else drives us to successful project outcomes. With this philosophy, we apply these client-focused principles toward serving you as well as our guiding company philosophy:

- ✓ Single point of contact and accountability
- ✓ Backup in key management and technical positions
- ✓ Highest corporate commitment to your projects
- ✓ Clear lines of reporting and authority
- ✓ Flexibility to expand or contract in response to project needs
- ✓ Direct technical review and QA/QC involvement for all deliverables
- ✓ Clear and effective communication among all project participants, which simplifies cost and schedule control



SCOPE OF SERVICES

Task 1 – Ongoing Management Services

During the course of the project, we will perform general project management services. Our project lead will originate from our Irvine office, and support will be provided from other California-based offices on an as-needed basis. Our services will include, but are not limited to the following.

- Review of financial documents, budgets, and ongoing expenses.
- Preparation and coordination of Board meeting deliverables and agendas.
- Support to the legal team in facilitating permits and entitlements.
- As-needed analytical tasks and support.
- Attendance at Board meetings.
- Identification, negotiation, and procurement of suppliers and vendors for the project.

Task 2 – Pre-Construction Services

In support of your permitting and design efforts, we will perform services, including but not limited to the following:

- Review of project grading and improvement plans for the proposed site work.
- Coordination with project suppliers and vendors.
- Coordination of scheduling and deliverables among the project team.

Task 3 - Construction Services

During construction activities, we will provide support services, including but not limited to the following.

- As-needed field manager services during site activities.
- Attendance at project meetings during construction.
- Preparation of letters documenting our reviews.
- Management of project budget and schedule.
- Preparation and issuance of a final report.

FEE ESTIMATE

We propose to perform the above-described services in accordance with our preferred client fee schedule current at the time our services are performed (current attached) as summarized below. Although the exact fee in any given month will fluctuate during the pre-construction and construction phases of the project, we estimate these fees will be normalized to approximately **\$12,000** per month through the duration of construction activities. The actual fees can be billed on a time-and-expense basis.

LIMITATIONS AND AUTHORIZATION

ENGEO's liability for damage due to professional negligence, acts, errors, omissions, breach of contract and consequential damages will be limited by Broad Beach GHAD to an amount not to exceed an aggregate limit of fifty thousand dollars or ENGEO's fee, whichever is greater, regardless of the legal theory under which such liability is imposed.


If you are in agreement with the scope of service and fees outlined herein, please sign the attached Addendum to Professional Services Agreement.

CLOSING

We look forward to serving you on this project. If you have any questions on any portion of the scope of services, please call and we will be glad to discuss them with you.

Sincerely,

ENGEO Incorporated



Jeffrey A. Adams, PhD, PE
Associate
jaa/ue/jf



Uri Eliahu, GE
President

Attachments: Addendum to Professional Services Agreement
Preferred Client Fee Schedule



2010 Crow Canyon Place, Suite 250
San Ramon, CA 94583-4634
(925) 866-9000 ♦ FAX (888) 279-2698

**ADDENDUM TO
PROFESSIONAL SERVICES AGREEMENT**

TO: Norton Karno, Chair
Broad Beach GHAD Board of Directors
% Broad Beach GHAD
2919 Valmere Drive
Malibu, CA 90265

DATE: August 19, 2016

ENGEO Project No. 08588.001.000

Phase: 002

ENGEO Contact: Jeffrey Adams

PROJECT NAME: Broad Beach GHAD - Revised Engr Report

ORIGINAL CONTRACT NO.: 8588.001.000

ORIGINAL CONTRACT DATE: February 10, 2015

The undersigned parties agree to make the following changes to the subject contract; all other provisions of the subject contract shall remain in effect.

If the undersigned party differs from that of the original contracting party, the undersigned agrees to all the original terms and conditions of the subject contract. Any limitations shall be an aggregate amount that applies to the original work and all subsequent change orders and/or addendums.

Additional Scope of Services: In accordance with the attached proposal dated August 19, 2016.

Estimated Fees: In accordance with the attached proposal dated August 19, 2016.

AGREED TO AND ACCEPTED BY:

ENGEO INCORPORATED

BROAD BEACH GHAD

BY: _____

BY: _____

PRINT NAME: _____

PRINT NAME: _____

TITLE: _____

TITLE: _____

DATE: _____

DATE: _____

**PREFERRED CLIENT FEE SCHEDULE
PROFESSIONAL SERVICES**

Effective April 2016

President.....	\$305.00 per hour
Principal Engineer/Geologist.....	\$250.00 per hour
Associate Engineer/Geologist.....	\$225.00 per hour
Senior Engineer/Geologist.....	\$200.00 per hour
Project Engineer/Geologist/Manager.....	\$180.00 per hour
Environmental Scientist.....	\$175.00 per hour
Staff Engineer/Geologist.....	\$160.00 per hour
Assistant Engineer.....	\$135.00 per hour
Construction Services Manager.....	\$158.00 per hour
Senior Field Representative II.....	\$143.00 per hour*/**
Senior Field Representative I.....	\$128.00 per hour*/**
Field Representative.....	\$118.00 per hour*/**
Environmental Technician.....	\$125.00 per hour*/**
Senior Laboratory Technician.....	\$145.00 per hour
Laboratory Technician.....	\$130.00 per hour
CAD/GIS Specialist.....	\$128.00 per hour
Network Administrator.....	\$195.00 per hour
Project Assistant.....	\$113.00 per hour

- * Two-hour minimum portal to portal. Travel time, pick-up and delivery will be billed based on normal hourly rates, portal to portal.
- * **OVERTIME RATES:** Rates increased by factor of 1.5 for all hours worked in excess of eight (8) Monday through Friday, and the first eight (8) hours worked on Saturday. Rates increased by factor of 2.0 for all hours worked in excess of twelve (12) Monday through Friday, all hours worked in excess of eight (8) on Saturday and all hours worked on Sunday and holidays.
- ** For Prevailing Wage projects, increase the hourly rate by \$15.
- ** Rates increased by factor of 1.25 for night shift hours (hours commencing after 4:00 p.m. or before 4:00 a.m.); rates increased by factor of 1.875 (an additional factor of 1.5) for all night shift hours in excess of eight (8).

ADDITIONAL SERVICES OFFERED

In addition to our core services of geotechnical, hydrologic and environmental engineering, including construction-phase testing and observation, ENGEO provides clients with services for establishment and management of Geologic Hazard Abatement Districts (GHAD) and for Entitlement and Permitting Support (EPS). For more information about these services and associated pricing, please contact ENGEO at (925) 866-9000.

OTHER FEES

- Equipment and materials will be charged in addition to the above hourly rates.
- Outside Consultants, Subcontracted Services and Equipment RentalCost plus 20%
- Deposition, Mediation, Arbitration, or Court Appearance (Minimum Charge)\$2,000.00 half day, \$4,000.00 full day

TERMS

Invoices will be submitted at completion of work or at approximately four week intervals and are due and payable upon receipt. Statements will be issued at monthly intervals. Charges not paid within 30 days of invoice date will accrue a late charge at a rate of 1.5 percent per month. In the event it becomes necessary to commence suit to collect amount due, Client agrees to pay attorney's fees and costs, as the court may deem reasonable until amount is paid. Fees will be applicable for one year from the effective date above; thereafter, fees will be adjusted annually. Our fees will be billed using an invoice format produced by a standardized accounting software package. A more customized itemization of charges and backup data will be provided upon Client's requests, but at additional fees. Final reports may be withheld until outstanding invoices are paid in full.

Many risks potentially affect ENGEO by virtue of entering into this agreement to perform services on behalf of client. A principal risk is the potential for human error by ENGEO. For client to obtain the benefit of a fee that includes a nominal allowance for dealing with our liability, client agree to limit ENGEO's liability to Client and all other parties for claims arising out of our performance of the services described in the agreement. The aggregate liability will not exceed \$50,000 (or ENGEO's fee, whichever is greater, but not more than \$1,000,000) for professional acts, errors, or omissions, including attorney's fees and costs that may be awarded to the prevailing party and client agrees to indemnify and hold harmless ENGEO from and against all liabilities in excess of the monetary limit established above.

EQUIPMENT AND MATERIALS CHARGES

Description	Cost Per Unit (\$)	Unit
Air Content Meter	7.00	hour
Bailers (Disposable)	8.00	each
Concrete Crack Monitor	20.00	each
Coring Machine	25.00	hour
Electronic Water Level Indicator	5.00	hour
Engineering Analysis Software	20.00	hour
Equipment Transport(er)	100.00	hour
Exploration Equipment (Percussion Penetrometer)	50.00	hour
Floor Flatness/Floor Level Equipment	20.00	hour
Generator	15.00	hour
GIS Website Portal Maintenance	100.00	month
GPS Hand Held (Garmin)	5.00	hour
GPS Survey Grade (Trimble)	90.00	hour
Hand Auger and Soil Sampler	15.00	hour
Hydraulic Pull-Test Equipment	15.00	hour
Interface Probe	2.00	hour
Magnetic Particle Test Equipment	8.00	hour
Moisture Content Test Equipment	6.00	hour
Multi-Parameter Water Meter	15.00	hour
pH Meter/Turbidity Meter	10.00	hour
Photo Ionization Detector	15.00	hour
R Meter (Pachometer)	15.00	hour
Sampling Tubes	10.00	each
Sand Cone Equipment and Material	5.00	hour
Schmidt Hammer	20.00	hour
Skidmore Wilhelm Bolt Tension Calib.	10.00	hour
Slope Inclinator/Settlement Indicator/VW Readout	50.00	hour
Torque Wrench	12.00	hour
Transfer Pump	3.00	hour
Ultrasonic Equipment	25.00	hour
Vapor Emission Test Kit	25.00	kit
Vector Conversion	60.00	conversion
Vehicle, mileage, nuclear gauge, misc. equipment, wireless communication	22.00	hour
Vehicle, mileage, misc. equipment, wireless communication	13.00	hour
Water Sampling Pumps	20.00	hour
Bridge Toll	actual	actual
Mileage	.78	mile
Parking	actual	actual
Trailer	15.00	hour
AutoCAD, Terramodel, GIS, Drone	20.00	hour
Photocopies Black & White	0.25	each
Photocopies Color 11 x 17	1.50	each
Photocopies Color 8½ x 11	1.00	each
Plot - Black & White	3.00	square foot
Plot - Color	4.00	square foot
Postage	actual	actual
Scan - Black & White	1.50	each
Scan - Color	3.75	each
Telephone	0.50	minute

Agenda Item 13b

Broad Beach GHAD**Cash Flow**

Board Meeting 8/28/2016

Cash in Bank July 18, 2016**\$3,540,506.59****Sources of Cash:**

Cash collected

7/20/16	L.A. County 097.21 GHAD Assessment	\$7,883.75
8/19/16	L.A. County 097.21 GHAD Assessment	\$3,718.75
	TTL	<u>\$3,552,109.09</u>

Disbursements from July 19 through August 23, 2016

<u>Date</u>	<u>Check#</u>	<u>Description</u>	
7/26/16	3625	Moffatt & Nichol	\$ 128,808.40
7/27/16	3627	Mark Goss	\$ 10,000.00
8/12/16	3628	Ramboll Environ	\$ 4,075.28
8/12/16	3629	Colantuono, Highsmith, Whatley	\$ 929.50

Total invoices paid July/August 2016	<u>\$ 143,813.18</u>
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Cash Ending Balance as of August 23, 2016**\$3,408,295.91****UNPAID BILLS**

<u>Date</u>	<u>Received</u>	<u>Invoice#</u>	<u>Vendor Name</u>	<u>Amount</u>
5/22/16		#3618	The Bay Foundation	\$ 214,500.00
8/10/16		#3646	Elkins Kalt	\$ 76,007.26
8/5/16		#3643	California Marine Sanctuary (SAP)	\$ 60,000.00
7/11/16		#3640	Elkins Kalt	\$ 53,907.98
7/12/16		#3641	Moffatt & Nichol	\$ 121,347.54
8/19/16			West End Refunds (22 checks) total	\$ 167,600.64
8/2/16		#3645	Colantuono, Highsmith, Whatley	\$ 3,281.00
7/13/16		#3644	California State Lands Commssion	\$ 1,693.48
8/15/16		#3647	Vectis Strategies	\$ 10,000.00
7/15/16		#3648	Vectis Strategies	\$ 10,000.00
7/24/16		#3642	H. Fuchs, Clerk/Treasurer	\$ 1,108.67
			<u>Estimated Unpaid Bills</u>	<u>\$ 719,446.57</u>

Budget vs. Actuals Paid
New Assessment
Fiscal Year
2015 -2016

	Budget FY2015-16	Actual										Total Income/Expense Nov. 2015-August 2016	Variance Aug-16	Sep-16	Oct-16	Nov-16
		Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16					
Income:																
Annual Assessment 2015-16	\$ 3,138,625.00															
Deposits																
L.A. County			\$ 1,231,570.00	\$ 307,912.50	\$ 454,332.75		\$ 623,361.00	\$ 415,362.84		\$ 7,883.75	\$ 3,718.75	\$ 3,044,141.59				
Swim Club			\$ 29,750.00				\$ 29,750.00					\$ 59,500.00				
Income Total:			\$ 1,261,320.00	\$ 307,912.50	\$ 454,332.75		\$ 653,111.00	\$ 415,362.84		\$ 7,883.75	\$ 3,718.75	\$ 3,103,641.59	\$ 34,983.41			
Estimated Annual Expense FY2015-2016																
Administration/Accounting & Insurance	\$ 150,080.00															
Project Manager		\$ 11,970.74	\$ 11,635.00	\$ 11,998.50	\$ 11,789.00	\$ 23,739.70	\$ 12,727.34	\$ 12,554.95	\$ 12,703.66	\$ 11,816.76		\$ 120,935.65				
Clerk/Treasurer			\$ 4,539.25	\$ 1,003.24	\$ 1,210.09	\$ 2,414.54	\$ 1,255.83		\$ 2,054.30		\$ 1,108.67	\$ 13,585.92				
L.A. County fees																
											TTL Admin.	\$ 134,521.57	\$ 15,558.43			
Annual Monitoring Total: \$ 400,000.00																
SAP/California Marine Sanctuary Foundation -																
Managing fees	\$ 180,000.00							\$ 60,000.00			\$ 60,000.00	\$ 120,000.00				
SAP/California Marine Sanctuary Foundation -																
Monitoring Fees	\$ 220,000.00										\$ 1,693.48	\$ 1,693.48				
											TTL SAP	\$ 121,693.48	\$ 278,306.52			
Permitting Fees	\$ 896,000.00															
Lobbyist Fees: Neish Inc. - CCC		\$ 16,219.53		\$ 9,070.26								\$ 25,289.79				
Vectis Strategies-U.S. Army Corps				\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 20,000.00		\$ 80,000.00				
Legal Fees: Elkins Kalt		\$ 78,411.83	\$ 37,247.21	\$ 74,825.37	\$ 27,271.84	\$ 32,514.83	\$ 65,221.15	\$ 48,212.09	\$ 53,754.74	\$ 129,915.24		\$ 547,374.30				
Legal Fees: Colantuono Highsmith & Whatley		\$ 12,346.00	\$ 2,155.50	\$ 190.00		\$ 1,861.00	\$ 47.50	\$ 47.50	\$ 929.50	\$ 3,281.00		\$ 20,858.00				
Engineering Fees: Moffat & Nichol		\$ 185,807.68		\$ 106,460.85	\$ 68,198.49	\$ 41,859.99	\$ 133,071.75	\$ 112,706.54	\$ 128,808.40	\$ 121,347.54		\$ 898,261.24				
:ENGE												\$ 880.00				
Ramboll Environ			\$ 880.00									\$ 8,232.07				
West End Refunds									\$ 4,156.79	\$ 4,075.28		\$ 167,600.64				
U.S. Army Corps Mitigation: The Bay Foundation							\$ 214,500.00					\$ 214,500.00				
											TTL Permitt.					
State Lands Commission - Back Rent											Fees	\$ 1,962,996.04	\$ (1,066,996.04)			
Beach Nourishment	\$ 10,750,000.00															
Amt Financed	\$ (10,750,000.00)															
Miscellaneous Expense	\$ 182,300.00											\$ -	\$ 182,300.00			
Debt Service	\$ 2,347,312.00															
	\$ 3,975,692.00															
Expense Total:		\$ 292,409.78	\$ 66,647.46	\$ 215,513.72	\$ 118,659.42	\$ 110,529.06	\$ 224,137.07	\$ 458,021.08	\$ 211,525.39	\$ 16,821.54	\$ 504,946.57	\$ 2,219,211.09				
	2015-16	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Nov. 2015-August 2016				
Assumptions																
Beach Frontage (excluding Western 22 parcels)																
Annual Assesment per foot of Beach Frontage																
Beach Frontage of Western 22 Parcels																
Annual Assessment per Foot of Beach Frontage of																
Western 22 Parcels																
Annual Adjustment in Assessment (est.)																
Escalation in Annual Costs (est.)																
Investment Earnings (est.)																
Frequency of Sand Nourishment (years)																
Cost of Sand Nourishment (current \$)																