



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE

Monterey Bay National Marine Sanctuary
299 Foam Street
Monterey, California 93940

MONTEREY BAY NATIONAL MARINE SANCTUARY
RESEARCH PERMIT

Permittee:

Monterey Bay Aquarium Research
Institute (MBARI)
7700 Sandholdt Road
Moss Landing, California 95039

Permit Number: MBNMS-2002-039-A1

Effective Date: November 15, 2006

Expiration Date: August 7, 2030

Project Title: Monterey Accelerated Research System (MARS) Cabled Observatory

This permit is issued for activities in accordance with the National Marine Sanctuaries Act (NMSA), 16 USC §1431 et seq., and regulations thereunder (15 CFR Part 922). All activities must be conducted in accordance with those regulations and law. No activity prohibited in 15 CFR Part 922 is allowed except seabed alteration and discharge as specified below. This permit replaces all previous permits and amendments.

Subject to the terms and conditions of this permit, Marcia McNutt, acting as agent for the Monterey Bay Aquarium Research Institute, ("the permittee") is hereby authorized to install and operate a 31.7-mile cable and associated science node on the seafloor for research purposes within the Monterey Bay National Marine Sanctuary (MBNMS). All activities are to be conducted in accordance with this permit, the Draft and Final Environmental Impact Report/Environmental Impact Statement for the Monterey Accelerated Research System (MARS) Cabled Observatory, including amendments made thereto dated July 29, 2005 (hereafter "EIR/EIS"), and the permit application dated February 18, 2004 (including supplemental application materials). These documents are incorporated into this permit and made a part hereof; provided, however, that if there are any conflicts between these documents and the terms and conditions of this permit, the terms and conditions of this permit shall be controlling.

PERMITTED ACTIVITY DESCRIPTION:

The following activities are authorized by this permit:

1. The installation, monitoring, use, continued placement, maintenance, repair, and removal of a 31.7-mile fiber optic submarine cable, (hereafter known as "the cable") upon and within the seafloor of the MBNMS.
2. The installation, monitoring, use, continued placement, maintenance, repair, and removal of one trawl-resistant science node (a piece of equipment that measures approximately 15 feet long, 12 feet wide, and 4 feet high, that contains eight data ports to provide electrical power and data transfer capability) and the associated scientific equipment upon the seafloor, as described on page 2-30 of the Draft EIR/EIS, and as summarized here: acoustic doppler current profiler (ADCP);



conductivity, temperature and depth (CTD) instruments; backscatter sensor and fluorometer instruments; acoustic current meter; vertical profiler; and a Guralp broadband seismometer.

3. Horizontal Directional Drilling (HDD) as required to install an underground conduit in which the cable will be placed, consisting of a 5-inch diameter steel pipe from shore to a point below the seafloor approximately 0.89 miles (1.4 km) offshore at a depth of 50 feet (15m) and including the use of drilling muds, consisting of bentonite clay and water, as necessary to aid the HDD.
4. A grapnel may be pulled along the cable route in a pre-lay grapnel run immediately prior to cable installation, and during repair operations.

No further disturbance of the cultural or natural resources of the MBNMS is allowed.

PERMITTED ACTIVITY LOCATION:

The location of permitted activities will be determined using the following procedure:

Before initiating any permitted activities, the permittee shall provide an updated cable route position list (RPL) to the MBNMS Superintendent based on the results of the AUV survey required by Special Condition 16. This RPL shall be based on the route described in the EIR/EIS and shall in no case exceed the area analyzed in the EIR/EIS. Upon receiving written approval of the RPL by the MBNMS Superintendent, the permittee is authorized to conduct permitted activities within an area extending 20 meters on either side of the approved RPL (the "permitted corridor"). Once this permitted corridor has been approved, the permittee shall not undertake activities outside the permitted corridor, except for repair activities as approved by the MBNMS Superintendent.

SPECIAL CONDITIONS:

1. The activities specified in this permit are authorized for the period beginning November 15, 2006 and ending August 7, 2030, subject to the terms and conditions of this permit. If installation of the cable has not commenced by November 15, 2007, however, this permit shall be considered void. No activities may be conducted until all pre-construction conditions of this permit are fulfilled (as specified in Special Conditions 16, 26, 27, 32, 38, 39, 47, and 72), notifications are made pursuant to Special Conditions 29 through 31, and all other federal, state, and local permits are issued.
2. The MBNMS Superintendent will review this permit at least every 5 years to determine if it warrants modification, revocation, suspension, amendment, or cessation due to new information about injury, destruction, or loss to MBNMS resources, qualities, or values resulting from the permitted activities, or for other good cause. In making this determination the MBNMS Superintendent will consider:

- a. Whether the permittee has been in compliance with the terms and conditions of the permit, the NMSA, or regulations promulgated thereunder; and
 - b. Whether the activity has resulted in any unforeseen or greater than anticipated impacts to MBNMS resources, qualities, or values.
3. If the permittee requests an amendment to this permit (including a request for an extension of time), the MBNMS Superintendent may update the language of any term or condition of this permit and may insert additional mitigation measures or other terms or conditions to reflect changed circumstances or additional identified actual or potential project impacts.
4. The permittee shall conduct all permitted activities in compliance with, and in a manner consistent with, the EIR/EIS. The permittee shall also comply with all mitigation, monitoring, and compliance plans of the EIR/EIS and as outlined in Attachment A. Modification of any procedures, operating techniques, design specifications and other project descriptions contained in these documents is not authorized without first notifying the MBNMS Superintendent and may require a new or amended permit. Prior to construction, repair, or removal activities, the MBNMS Superintendent will review any findings that identified certain mitigation measures as being under the jurisdiction of other agencies and shall determine whether: (1) such mitigation has been or is being implemented by the appropriate agency, or (2) the other agency and the MBNMS Superintendent have jointly determined such mitigation to be infeasible or no longer necessary.
5. If the permittee or the cable is sold, assigned, or otherwise transferred to a separate party, this permit shall be revoked on the date of such sale, assignment, or transfer, unless the permittee provides the MBNMS Superintendent written request to transfer this permit to a successor party at least 60 days in advance of such sale, assignment, or transfer, and the MBNMS Superintendent approves the transfer. If the MBNMS Superintendent approves the transfer of the permit to a successor party, he or she shall have an opportunity to modify the permit as he or she deems appropriate at the time of transfer.
6. The permittee shall provide summary results of permitted activities to the MBNMS Sanctuary Integrated Monitoring Network as soon as data are analyzed. See <http://www.mbnms-simon.org> for more information.
7. The permittee shall indemnify and hold harmless the National Marine Sanctuary Program, NOAA, the Department of Commerce and the United States for and against any claims arising from the conduct of any permitted activities, and for any damage to the cable and/or associated instruments inadvertently caused by NOAA.
8. In the event that any term or condition herein is determined to be invalid, then all remaining terms and conditions shall remain in full force and effect. In the event this permit is held invalid by a court of competent jurisdiction, this permit

shall be invalid and the permittee must acquire new approval from NOAA for the conduct of permitted activities within MBNMS.

Cable Installation Activities

9. The cable shall be installed by Alcatel, under contract to the permittee, using the vessel *Maersk Defender* or a vessel with comparable installation capabilities.
10. The permittee shall provide an opportunity for the MBNMS Superintendent to designate up to one observer to be aboard any vessel used to conduct permitted activities (including, but not limited to, cable and science node installation, repair, and removal) for the purposes of monitoring permit compliance throughout all hours of operation. The permittee shall ensure safe and adequate bunk space is available for this observer.
11. The permittee shall cease installation operations if weather or sea conditions are not conducive to cable installation. If either the MBNMS Superintendent or the permittee is concerned about weather conditions or determines weather conditions to be problematic for cable installation, they shall immediately consult to determine if cable installation activities shall be terminated. If cable-laying operations are discontinued due to weather, the permittee shall not recommence until after consulting with the MBNMS Superintendent to determine if recommencement is appropriate.
12. The cable shall be fully buried along at least 76% of the route (24.1 miles) to a depth not less than 3.3 feet (1m), as described in the EIR/EIS. The cable shall be installed utilizing a mechanical plow towed from a cable-laying vessel, except in areas where geological conditions prevent full burial with the mechanical plow, as described in the EIR/EIS.
13. In areas where geological conditions prevent full burial with the mechanical plow but allow jetting, the cable shall be first laid on the sea bottom and then post-lay buried by jetting. The cable shall be partially buried to a depth of 0.33 feet (0.1m) over the 6% (1.9 miles) of the route area where clay and dense sand habitat predominate, as identified in the EIR/EIS.
14. No burial is expected to be feasible on rock or hard clay habitats representing the remaining 18% (5.7 miles) of the route. With respect to these areas:
 - a. From shore to a point below the seafloor approximately 0.89 miles (1.4 km) northwest of the shore-landing site in the Monterey Bay, and offshore at a depth of 50 feet (15m), the cable shall be placed in a buried steel pipeline that will be installed by HDD.
 - b. Beyond the HDD drilled steel pipe, the permittee shall incorporate "best available technology" so that the cable will conform as closely as technically possible to the contours of the seafloor in order to avoid suspensions and strumming. "Best available technology" shall include, but not be limited to, the use, where appropriate, of cable slack control.

- c. In areas where cable burial is not possible, the permittee shall use additional cable armoring consisting of single armor light cable sheathing as indicated in the EIR/EIS.
15. No explosives shall be used to install the cable.
16. Before commencement of cable installation, the permittee shall use an autonomous underwater vehicle (AUV) with multi-beam sonar to map the permitted corridor. Based on the results of the AUV survey, the permittee shall route the cable to avoid, if possible, all high relief (1-meter high or greater) hard substrate and potentially archeologically sensitive areas. However, permitted activities are not authorized more than 20 meters outside the permitted corridor (as defined in the "Permitted Activity Location" of this permit) except during repair activities approved by the MBNMS Superintendent.
17. The permittee may pull a grapnel along the cable route in a pre-lay grapnel run immediately prior to cable installation in order to clear the cable route of obstacles that a cable plow or remotely operated vehicle (ROV) may encounter prior to cable installation. The permittee shall avoid grapnel retrieval near outcrops by consulting charts developed by the AUV survey in advance of grapnel operations. If the grapnel hooks debris, the permittee shall cease towing, immediately retrieve and properly stow the debris onboard, and transport any recovered debris to shore for its eventual proper disposal. The permittee shall not conduct grapnel operations over rocky substrates or in the vicinity of any potentially sensitive areas, such as rock outcrops, escarpments, or carbonated substrate. If the grapnel retrieves potential archeological resources, the permittee shall follow procedures outlined in Special Condition #33.
18. In areas where the cable route may encounter steep slope gradients (8% or greater), the permittee shall place the cable as perpendicular to slopes as possible and shall avoid possible areas of sediment slump or slides.
19. The permittee shall install the cable so that no looping of the cable occurs. If any looping does occur, the permittee shall immediately reinstall the cable in a manner that eliminates the loops.
20. The permittee shall undertake cable installation operations in such a way and at such speeds that minimize impacts to MBNMS resources, qualities, and values. During cable installation, the cable-laying vessel shall limit its speed to less than 2 knots. Support vessels shall maintain moderate speeds (3-5 knots) during installation to minimize the likelihood of collisions with marine mammals and sea turtles.

Marine Mammal Monitoring

22. The permittee shall establish a safety zone around the cable-laying vessel as described in the Marine Mammal Monitoring Plan, and as approved by NOAA Fisheries, to avoid marine mammals. The permittee shall implement procedures for suspending cable-laying operations immediately in the event a marine mammal enters the safety zone. The permittee shall ensure that the purpose of the safety zone is fully understood by the vessel crew and shall ensure that procedures for suspending cable installation operations are followed.
23. The permittee shall ensure two marine mammal monitors approved by NOAA Fisheries are on watch on the cable-lay vessel and any support vessels, as appropriate, used in the conduct of permitted activities to maximize the probability that any marine mammals entering the safety zone are sighted, consistent with the Marine Mammal Monitoring Plan. Marine mammal monitors shall have the duty to monitor and report the presence of marine mammals in the safety zone.
24. During nighttime observations, or as appropriate for low-light observations, all marine mammal monitors shall use nighttime vision equipment.
25. Within 30 days of the completion of any permitted activity requiring a marine mammal observer pursuant to Special Condition 23, the permittee shall submit a marine wildlife monitoring report prepared by the approved marine wildlife monitors to the MBNMS Superintendent. The marine wildlife monitoring report shall include:
 - a. An evaluation of the effectiveness of monitoring protocols and
 - b. Reporting of marine mammal, sea turtle, and other wildlife sightings (species and numbers); any wildlife behavioral changes that may have been attributable to project operations; any project delays or cessation of operations due to the presence in the project area of marine wildlife species subject to protection under the Marine Mammal Monitoring Plan; and a detailed account of any incidents involving wildlife.

Spill Control Measures

26. The permittee shall submit a Spill Prevention Control and Countermeasure Plan ("Spill Plan") to the MBNMS Superintendent at least 21 days prior to conducting any permitted activity. The Spill Plan must be approved in writing by the MBNMS Superintendent prior to the conduct of any permitted activity and shall include, at a minimum, the following elements:
 - a. Actions to be taken in response to both minor and major spill scenarios, including required equipment, procedures, and notification protocols.
 - b. Sufficient equipment onsite (including containment booms, skimmers, and associated deployment equipment) to contain and clean up a 2,500 barrel spill and staged in such a manner that it can be immediately deployed;

- c. Arrangements for a fast response boat to be available to quickly respond to a spill and deploy, or assist in deploying, an absorbent boom or other containment gear.
 - d. Requirement to notify the MBNMS Superintendent and other appropriate authorities immediately in the event of any spill within the MBNMS.
27. The permittee shall submit a revised Drilling Fluid Monitoring and Remediation Plan for HDD ("HDD Drilling Plan") to the MBNMS Superintendent at least 21 days prior to conducting cable laying operations or HDD activities. The HDD Drilling Plan must be approved in writing by the MBNMS Superintendent prior to conducting permitted activities and include, at a minimum, the following elements:
- a. Use of water to lubricate the final three drill stems or pipes (approximately 100 feet) of the borehole;
 - b. Back-flushing of residual drilling fluids with water prior to surfacing of the borehole on the seafloor, using equipment that is free of all hydrocarbons and associated contaminants for any conduit flushing;
 - c. Use of the fluorescent dye rhodamine added to the drilling fluid together with a fluorometer (a dye detector) to identify any drilling fluids released into water;
 - d. Use of side-scan sonar to assist in drilling release detection if the fluorometer detects a drilling fluid release;
 - e. Visual monitoring and inspection onshore and offshore (by boat and with divers recording suspected releases on videotape); and
 - f. A set of contingency and response measures, including identification of a reasonable worst-case spill scenario; a list of spill response equipment to be kept onboard the vessel that will be used to monitor offshore conditions and is sufficient to respond to the identified worst-case spill scenario; an agency notification list; and Material Safety Data Sheets (MSDS) sheets for all chemicals and other matter used in the HDD.
28. The permittee shall strictly adhere to and comply with the Spill Plan submitted and approved in accordance with Special Condition 26 and HDD Drilling Plan submitted and approved in accordance with Special Condition 27 while conducting permitted activities.

Notifications

29. The permittee shall notify the MBNMS Superintendent at least 14 days prior to commencing cable installation or repair operations within the MBNMS and within 24 hours of the cessation of cable installation or repair operations within the MBNMS.
30. The permittee shall notify the Moss Landing Harbor District at least 14 days prior to conducting any construction under this permit to ensure the district is aware of the timing of the cable installation or repair operations and shall work with the district to provide notice of these operations to vessels that operate out of Moss Landing Harbor. In addition, the same notice shall be provided at all

harbormaster offices in Santa Cruz and Monterey 14 days prior to commencement of construction operations.

31. At least 14 days prior to commencement of cable installation or repair activities, the permittee shall use diligent good faith efforts to distribute written notification to any commercial fisherman legally authorized to fish in the permitted corridor. The permittee shall contact the California Department of Fish and Game (CDFG), and any other appropriate organizations, to obtain contact information for fishermen reporting catch in or near the permitted corridor. The permittee shall send the notification to fishermen by certified mail, post it at the Moss Landing, Santa Cruz and Monterey harbormaster offices, and file it with the Monterey Bay Aquarium Research Institute, the MBNMS Superintendent, and CDFG. The notice shall:
 - a. Describe the proposed project;
 - b. Provide the precise timing of cable installation or repair activities, and areas that will be off-limits to fishermen during cable installation or repair;
 - c. Include a navigation chart overlaid with the exact coordinates of the proposed route or, for repair activities, the route as laid;
 - d. Contain a copy of all MBARI provisions dealing with entanglements, lost gear, and claims; and
 - e. Provide the permittee's contact information.

Archeological Resources

32. The permittee is responsible to ensure that a review of existing sub-bottom profiler data along the permitted corridor between the +24.5-mile and +29.0-mile marks (from shore) be conducted by the State Lands Commission contractor prior to permitted activities. The review shall be conducted by a qualified marine archaeologist to determine whether archaeologically sensitive features or areas are present in areas to be crossed by the cable. The permittee shall submit the archival research results to the MBNMS Superintendent at least 21 days in advance of cable installation operations. The permittee shall identify any areas of potential cultural resources and submit a plan describing how they will be avoided during the conduct of all permitted activities.
33. The permittee shall suspend all permitted activities if archeological remains are identified during the conduct of any permitted activity until a qualified archaeologist and, where necessary, appropriate tribal representative(s) have evaluated the significance of the find, recommended any necessary treatment, and such treatment has been conducted to the extent required by the MBNMS Superintendent.

Fishermen Reimbursement

34. To prevent or minimize losses to commercial fishermen licensed to operate in Monterey Bay that may occur if fishing gear is damaged by, or lost on, the MARS cable, the permittee shall comply with the California State Lands Commission ("CSLC") General Lease, File Ref: W25980/R12903, Special Condition 18, issued

August 8, 2005, which outlines reimbursement and mediation procedures. The Special Condition 18 of CSLC General Lease, File Ref: W25980/R1290 is incorporated into this permit and found in its entirety in Attachment B to this permit.

Cable Entanglements and Gear Retrieval

35. In the event that a fisherman snags the cable and loses or cuts gear, or any other type of entanglement occurs, the permittee shall notify the MBNMS Superintendent within 24 hours of the permittee's knowledge of the cable entanglement. If the entanglement or snag involves a non-living object such as fishing gear, the permittee shall use all possible means to retrieve the object and ensure such retrieval occurs no later than 30 days after discovering or receiving notice of the incident, unless otherwise authorized by the MBNMS Superintendent to conduct retrieval on a different schedule. If the MBNMS Superintendent determines that full removal of the entangling object is not possible, the permittee shall remove as much gear as possible to minimize potential harm to wildlife (e.g., fishes, birds, and marine mammals). In the event the entanglement involves a marine mammal, or a marine mammal is otherwise injured in an entanglement, the permittee shall call the 24-hour marine mammal rescue line for the Marine Mammal Center of Monterey County (831-633-6298) to summon marine mammal care and rehabilitation professionals.
36. Within 14 days of completing the recovery operation required pursuant to Special Condition 35, the permittee shall submit to the MBNMS Superintendent a report describing:
 - a. The nature of and location of the entanglement (with a map), including any associated impacts such as harm to wildlife or secondary snags;
 - b. The retrieval method used for removing the entangled gear or other object, or the method used for minimizing harm to wildlife if retrieval proves impossible; and
 - c. The results of efforts to remove the entanglement.

Vessel Operations and Marine Traffic

37. The permittee shall, to the maximum extent possible, avoid conflicts between vessels conducting permitted activities and other marine traffic.
38. Commencing at least 24 hours prior to the commencement of any cable installation or repair activities, or installation of the science node, the permittee shall broadcast information about the planned activities on maritime radio channels to notify vessels that may be operating in the vicinity of the impending operations.
39. The permittee shall notify the United States Coast Guard (USCG) of proposed vessel operations in accordance with USCG requirements to ensure timely publication of an appropriate Local Notice to Mariners, if required.

40. All working and deck lights on vessels engaged in permitted activities shall be shielded downward and unnecessary lights extinguished in order to minimize marine bird-vessel collisions.
41. Discharge of sewage, bilge or ballast water, or debris from vessels engaged in permitted activities is prohibited.. All other vessel discharges must be in compliance with MBNMS regulations at 15 CFR § 922.132.

Post- Installation Inspection, Burial, and Reporting

42. The permittee shall conduct a Post-Lay Inspection and Burial (PLIB) survey of the cable to inspect the cable as laid and conduct any additional jetting necessary to ensure proper cable burial in accordance with this permit. This PLIB survey shall be completed within 3 days of cable installation, shall be conducted using an ROV, and shall follow the path of the cable-laying vessel. The survey shall include jet burial in the plowed sections where geologic conditions prevented full burial (e.g., excessively soft substrate conditions that could not support the plow, or steep slopes) and burial and inspection of any unburied sections remaining from the science node deployment. The permittee shall have the appropriate equipment onboard at the time of the PLIB survey (such as a cable tracker and TSS 350 technology) to determine the final burial depth and disposition of the cable. The permittee shall summarize the results of this study and submit them in a Post Lay Inspection and Burial Report (see Special Condition 44).
43. The PLIB survey shall be recorded by digital video and shall include identification of the date, time, position, water depth, and heading of the ROV. The video imagery will be of sufficient resolution to distinguish cobble from mud or sand substrates. A copy of this digital video with georeferences shall be provided to the MBNMS Superintendent.
44. Within 90 days of completing the cable-laying activities, the permittee shall provide two copies of a PLIB Report summarizing the results of the PLIB survey. This report shall, at a minimum, include:
 - a. A comprehensive summary of all activities conducted under this permit to date, including descriptions of pre-lay and installation operations and methods, cable laying and burial equipment used, navigational and slack control equipment and methods, identification of any areas of cable suspension, routine or non-routine post-lay surveys, repair activities, and cable inspection activities;
 - b. A quantitative description of the cable post lay appearance including: the final burial depth and disposition of the cable; percent buried (including average, minimum, and maximum burial depths), percent partially buried and unburied; and identification of any suspensions;
 - c. A description of any difficulties with the operation, techniques employed, or other problems encountered;

- d. The latitude and longitude location and GIS layer of the cable as installed, the location of any exposed cable, and the location and identity of any obstruction or unusual conditions or materials encountered (bottom and surface);
 - e. A description of the bottom type encountered and any discrepancies in sediment type from that predicted by the pre-installation survey or side scan imagery;
 - f. A description of vessel traffic incidents of note (either involving the cable ship or other traffic);
 - g. A description of archaeological resources encountered or disturbed;
 - h. A description of any discharges/deposits of expendable devices or other materials or matter into the MBNMS;
 - i. A set of "as built" plans, showing the final deposition including latitude and longitude coordinates and profiles of the cable and all field changes or other modifications to the plans as originally approved for construction; and
 - j. A description of any other significant occurrence or information that may be of interest to the MBNMS Superintendent.
45. So that appropriate chart updates and Notices to Mariners can be generated, within 90 days of cable installation the permittee shall supply NOAA (Nautical Data Branch) and the United States Coast Guard with:
- a. Geographic coordinates of the cable as-built plan using a Differential Geographic Positioning System ("DGPS") unit or comparable navigational equipment, with areas of partial burial or surface lay clearly indicated; and
 - b. The permittee's point of contact and telephone number.
46. The permittee shall make updated charts available to commercial fishermen licensed to fish in the area at no cost.

Cable Monitoring and Remediation

47. The permittee shall submit a Cable Monitoring Plan to the MBNMS Superintendent at least 21 days prior to commencing cable-laying operations within the MBNMS. The permittee must receive written approval of the Cable Monitoring Plan from the MBNMS Superintendent prior to the conduct of any activity authorized by this permit. The Cable Monitoring Plan shall be developed to ensure compliance with Special Conditions 48 through 53 of this permit, including surveys and reporting requirements.
48. The permittee shall complete a series of Cable Route Surveys as described below:
- a. An initial survey of the entire cable route within 18 months of completing the PLIB survey required by Special Condition 44 to verify that all buried cable has remained buried consistent with the provisions of this permit.
 - b. A second Cable Route Survey 18 to 24 months after completion of the first cable route survey. After analyzing the results of these first two surveys, the MBNMS Superintendent will determine the frequency of additional

- surveys to be conducted by the permittee, although at least one survey shall be required every 60 months.
- c. As part of the first Cable Route Survey, the permittee shall also complete a baseline assessment of the biological, geological, and ecological impacts of the presence of the cable, including comparisons with control sites located outside the cable route (termed "Actual Impacts Assessment"). The sampling design for Actual Impacts Assessment shall be submitted to the MBNMS Superintendent by October 1, 2006 for the Superintendent's review and written approval.
 - d. Based on the survey results, the MBNMS Superintendent may require the permittee to conduct additional Actual Impacts Assessment surveys to be included with each subsequent Post-Survey Report described in Special Condition 50. The number of sample sites, location of control sites and frequency of sampling to be carried out by the permittee shall be approved by the MBNMS Superintendent and may be designed to assess only those areas of the cable route that are showing impacts. The sampling design for these additional Actual Impacts Assessment surveys shall be submitted by the permittee to the MBNMS Superintendent at least 6 months in advance of the required survey for the Superintendent's review and written approval.
49. Surveys shall be conducted with a ROV equipped with video and by a party approved by the MBNMS Superintendent. A copy of all such videos shall be provided to the MBNMS Superintendent upon request.
50. Within 30 days of completing each Cable Route Survey required under Special Condition 48, the permittee shall submit to the MBNMS Superintendent a Post-Survey Report that includes, at a minimum, the following elements:
- a. A description of the results of each survey, including representative still images showing all the different conditions of the cable and the science node;
 - b. A route position list in both latitude and longitude; and
 - c. A GIS layer with all positions of unburied and suspended cable, which notes any changes in burial depth or disposition over time; and
 - d. Any data and reporting to describe the results of any Actual Impacts Assessment Surveys required in Special Condition 48.
51. If any survey shows significant changes in cable location and burial, the MBNMS Superintendent may require future surveys to incorporate appropriate technology (such as TSS technology) in order to assess cable burial depth.
52. Should any survey show unanticipated impacts to MBNMS resources, qualities, and values, at the discretion of the MBNMS Superintendent the permittee may be required to develop a plan to reduce or eliminate these impacts. This plan must be approved by the MBNMS Superintendent in writing before implementation, and may include measures such as adjusting cable slack or anchoring the cable to the seafloor. In the event the MBNMS Superintendent determines that the impacts are significant enough to warrant suspension or

cessation of the project, the MBNMS Superintendent may instead take direct action under Special Condition 2 of this permit.

53. Should any survey show that any portion of the cable is no longer buried consistent with the "as-built" plan required by Special Condition 44, the permittee shall prepare and implement a Cable Reburial Plan to bring the cable into compliance with this permit. The permittee shall submit the Cable Reburial Plan to the MBNMS Superintendent within 30 days of completion of the survey. The MBNMS Superintendent must approve the Cable Reburial Plan in writing prior to the initiation of any reburial activities. Upon approval of the plan by the MBNMS Superintendent, the permittee shall implement the Cable Reburial Plan in accordance with the time schedule specified therein. In all cases, the permittee shall take all reasonable steps to rebury the cable as quickly as is reasonable and feasible, as determined by the MBNMS Superintendent.

Cable Repair

54. In the event the permittee desires to initiate cable repair operations, the permittee shall submit a Cable Repair Plan to the MBNMS Superintendent and receive written approval of the plan at least 14 days prior to commencing repair operations within the MBNMS. No repair activities may commence without the written approval of the MBNMS Superintendent. If the MBNMS Superintendent determines that the effects of the proposed repair activities on MBNMS resources, qualities, and values will exceed the effects anticipated and analyzed by the EIR/EIS, the MBNMS Superintendent will not approve the proposed activities without supplementing the EIR/EIS and/or conducting any additional environmental impact analyses as required by federal law at that time.
55. The permittee shall conduct the appropriate notifications for repair operations as outlined in Special Conditions 29 through 31 of this permit and provide an opportunity for the MBNMS Superintendent to designate a NOAA observer to be aboard the repair vessel.
56. The permittee shall bury repaired cable in sediments to the depth originally intended for that segment of cable (as specified in Special Conditions 12 and 13 of this permit) and as analyzed in the EIR/EIS. Re-burial of a repaired segment shall be conducted in the same manner as post-lay ROV burial during initial installation, using water jets to fluidize and displace the sediments underlying the cable.
57. Within 30 days following cable repair or maintenance operations, the permittee shall provide the MBNMS Superintendent with a report describing the repair or maintenance operation ("Repair Report"). Repair Reports shall include, at a minimum: a chronology of activities authorized herein including any difficulties with the operation; the location of any exposed cable; confirmation of the depth of burial; the relocation of any cable as a result of repair; the location and identity of any obstruction or unusual conditions or materials encountered (bottom and surface); information on the bottom type encountered, any vessel traffic incidents

of note (either involving the repair vessel or other traffic); and any other information the permittee believes may be of interest to the MBNMS Superintendent.

58. The permittee shall record and verify by video any repair and/or reburial, or any other event that may affect cable burial. This video will comply with the specifications given in Special Condition 43 of this permit.
59. Where the cable has been rerouted in connection with a repair operation, new positions shall be provided to the MBNMS Superintendent, NOAA (Nautical Data Branch) and the USCG, so that updates can be made to nautical charts and appropriate revised Notice to Mariners may be published. The permittee shall make updated charts available to fishermen licensed to fish in the area at no cost.
60. The permittee shall charter a local fishing vessel to patrol the area during repair operations to minimize the possibility of interference with fishing operations.
61. The permittee shall adhere to all best management practices that may be applicable when conducting repair or maintenance operations to ensure minimal impact to MBNMS resources, qualities, and values. Furthermore, the permittee shall comply with the appropriate special conditions that may also be relevant to repair operations as outlined under the cable installation section of this permit (Special Conditions 9 through 28). Cable repair operations shall be subject to the Mitigation and Monitoring requirements as appropriate, and as described in Attachment A.
62. Should any action become necessary to bring the cable into compliance with terms and conditions of this permit (e.g., need to bury or rebury the cable or to correct conditions subsequently learned), the permittee shall undertake such work or repair as deemed necessary by the MBNMS Superintendent, according to the terms and schedule set forth by the MBNMS Superintendent and after any necessary or otherwise appropriate permitting reviews and studies by NOAA.

Cable Removal

63. The permittee shall remove all structures placed within the boundaries of the MBNMS under the authority of this permit (including but not limited to the cable, the science node, and any other scientific equipment), except the steel casing at the shore crossing, in any of the following circumstances:
 - a. Prior to permit expiration per Special Condition 64;
 - b. The cable has been damaged and remained in disrepair for two consecutive years after the initial break; or
 - c. The cable has not being actively used for two consecutive years.
64. The permittee shall submit a final Cable Removal Plan to the MBNMS Superintendent and the appropriate state agencies at least 18 months prior to the conduct of any removal required pursuant to Special Condition 63 but in no case later than February 7, 2029. The Cable Removal Plan must be approved in

writing by the MBNMS Superintendent prior to commencing any cable removal activities and shall contain, at a minimum, the following elements:

- a. A detailed description of the methods to be employed to remove the cable including its ultimate disposition;
- b. A detailed description of the methods to be employed to remove the scientific equipment including its ultimate disposition;
- c. A supplemental environmental analysis that addresses any differences between the impacts described and analyzed in the environmental impact statement and the planned removal operations, if deemed necessary by the MBNMS Superintendent to comply with Council on Environmental Quality regulations or other applicable law;
- d. A schedule for completion of the removal of the cable within 18 months of any of the circumstances requiring the removal of the cable, but in no case after August 7, 2030; and
- e. Identification of the entities to be employed to execute the cable removal plan.

Scientific Research Equipment

65. Any new equipment proposed for future placement on, in the vicinity of, or in association with permitted activities, and not analyzed in the EIR/EIS, requires the written approval by the MBNMS Superintendent in the form of a separate permit or amendment to this permit. Approval of such additional research equipment may require the preparation of supplemental environmental impact analysis pursuant to the provisions of the National Environmental Policy Act or other applicable law. The permittee shall submit a separate application to the MBNMS Superintendent for approval of such projects.
66. The permittee shall remove all equipment authorized for installation under this permit, or any associated permits, including individual scientific instrumentation when such equipment is no longer in use. The permittee shall remove such equipment sooner (i.e., when it is still in use) if directed by the MBNMS Superintendent when, in his or her view, such equipment is causing or may cause unanticipated harm to MBNMS resource, qualities, or values.
67. In the event that any equipment is damaged or dislocated due to weather or any other cause, the permittee shall use all possible means available to immediately locate and recover the affected item(s). The location and description of any equipment abandoned or lost in the MBNMS for any reason shall be reported in any reports required by this permit with an explanation of why the equipment was not recovered.

Discharges

68. No discharge of chemicals (including common elements or compounds, such as iron) or other matter that may be toxic to marine life is permitted. The permittee must submit a separate application to the MBNMS Superintendent for such discharges.

69. The permittee shall fully document any accidental discharges (e.g., hydraulic fluid, battery acid, fuel, oils, etc.) in any reports required by this permit and make immediate notification to the MBNMS Superintendent and other appropriate authorities.

Bonds and Insurance

70. The permittee shall purchase and maintain comprehensive general liability insurance against any claims arising out of activities conducted under this permit, including damages and response costs resulting from injury to, destruction of, or loss of MBNMS resources.
71. The permittee shall, prior to the conduct of any permitted activities, purchase and maintain a bond to cover all estimated costs associated with the removal of the cable and other structures allowed to be placed within the MBNMS in both state and federal waters under this permit. The MBNMS Superintendent may approve another form of financial assurance that provides an equivalent level of assurance if he or she determines purchase of a bond is not practicable.
72. Prior to the conduct of permitted activities, the permittee shall submit evidence to the MBNMS Superintendent of compliance with Special Conditions 70 and 71 of this permit.
73. The MBNMS Superintendent reserves the right to modify the bond and insurance requirements effective each fifth anniversary of this permit, or sooner if deemed necessary.

GENERAL CONDITIONS:

1. All persons participating in the permitted activity must be under the supervision of the Monterey Bay Aquarium Research Institute, the permittee. The permittee is responsible for any violation of this permit, the NMSA, and MBNMS regulations for activities conducted under, or in conjunction with, this permit. The permittee must ensure that all persons performing activities under this permit are fully aware of the conditions herein.
2. Within 30 (thirty) days after the date signed by the MBNMS Superintendent, the permittee must sign and date on the appropriate line below for this permit to be valid. Once signed and dated, the permittee must ensure that the persons listed below each receive a signed original within 35 (thirty-five) days of the date signed by the MBNMS Superintendent:

Deirdre Hall
Permit Coordinator
Monterey Bay NMS
299 Foam Street
Monterey, CA 93950
(831) 647-4207

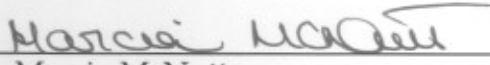
David Bizot
National Permit Coordinator
NOAA National Marine Sanctuary Program
1305 East-West Highway (N/ORM6)
Silver Spring, MD 20910
(301) 713-7268

3. It is a violation of this permit to conduct any activity authorized by this permit prior to the Sanctuary official having received a permit with the permittee's original signature on the appropriate line below. The permittee shall contact the MBNMS office to ensure the requisite documentation has been received before conducting any activity authorized by this permit.
4. This permit may only be amended by the National Marine Sanctuary Program. The permittee may not change or amend any part of this permit at any time. The terms of the permit shall be accepted in full, without revision; otherwise, the permittee shall return the permit to the MBNMS office unsigned with a written explanation for its rejection. Amendments to this permit shall be requested in the same manner the original request was made.
5. This permit is non-transferable and shall be carried by the permittee at all times while engaging in any activity authorized by this permit.
6. The permittee is liable for any damage to MBNMS resources or qualities caused by activities conducted under this permit.
7. This permit may be suspended, revoked, or modified for violation of the terms and conditions of this permit, the regulations at 15 CFR Part 922, the NMSA, or for other good cause. Such action will be communicated in writing to the applicant or permittee, and will set forth the reason(s) for the action taken.
8. This permit may be suspended, revoked or modified if requirements from previous or future National Marine Sanctuary Program permits or authorizations issued to the permittee are not fulfilled by their due date.
9. Permit applications for any future activities in the MBNMS or any other sanctuary in the system by the permittee might not be considered until all requirements from this permit, or associated permits, are fulfilled.
10. This permit does not authorize the conduct of any activity prohibited by 15 CFR § 922, other than those specifically described in the "Permitted Activity Description" section of this permit. If the permittee or any person acting under the permittee's supervision conducts, or causes to be conducted, any activity in the Sanctuary not in accordance with the terms and conditions set forth in this permit, or otherwise violates such terms and conditions, the permittee is subject to civil penalties, forfeiture, costs, and all other remedies under the NMSA and its implementing regulations at 15 CFR Part 922.
11. Any publications and/or reports resulting from activities conducted under the authority of this permit shall include the notation that the activity was conducted under National Marine Sanctuary Permit MBNMS-2002-039-A1 and be sent to the individuals in General Condition 2.
12. This permit does not relieve the permittee of responsibility to comply with all other federal, state and local laws and regulations, and this permit is not valid

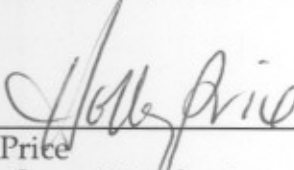
until all other necessary permits and/or authorizations are obtained. A complete list of other necessary permits is identified in the EIR/EIS. Particularly, this permit does not allow disturbance of marine mammals or seabirds protected under provisions of the Endangered Species Act, Marine Mammal Protection Act, or Migratory Bird Treaty Act. Authorization for incidental or direct harassment of species protected by these acts shall be secured from the U.S. Fish and Wildlife Service and/or NOAA Fisheries, depending upon the species affected.

13. Any question of interpretation of any term or condition of this permit will be resolved by NOAA.

Your signature below, as the authorized representative of the permit holder, indicates that you accept and agree to comply with all terms and conditions of this permit. This permit becomes valid when you countersign and date below. Please note that the expiration date on this permit is already set and will not be extended by a delay in your signing below.

 11/10/06

Dr. Marcia McNutt Date
President and CEO
Monterey Bay Aquarium Research Institute

 11/3/06

Holly Prite Date
Acting Superintendent
Monterey Bay National Marine Sanctuary

2 documents attached

#. **Mitigation Measures**

The following mitigation measures shall be completed as part of this permit:

Mitigation Monitoring Program

Impact	Mitigation Measure	Location	Monitoring / Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
Air Quality						
AQ-1: Vessels used for construction and decommissioning could exceed daily emission thresholds for ozone precursors and particulate matter.	MM AQ-1a: Use low-emission fuel on all diesel-powered vessels and construction equipment.	HDD site.	Construction contractors shall retain receipts of fuel purchases to verify use of CARB on-road diesel fuel.	Use of low-emission fuels verified, thereby reducing NOx exhaust emissions.	CSLC/MBNMS	During construction.
	MM AQ-1b: Contribute to a NOx off-site emission reduction program.	N/A	MBARI shall fund an off-site emission reduction program identified by the MBUAPCD.	Evidence submitted of funding contribution to an off-site emission reduction program.	CSLC/MBNMS	Prior to construction.
Cultural Resources						
CR-1: The Project could disturb unknown prehistoric sites that lie along the sea route between the +24.5-mile (39.4-km) and +29.0-mile (46.7-km) marks.	MM CR-1: Review existing sub-bottom profiler data and avoid any potential archeologically sensitive areas.	Sea route.	MBARI shall submit archival research results to the CSLC and MBNMS.	Archival research verified as complete and in accordance with professional standards.	CSLC/MBNMS	Prior to construction.
Marine Vessel Transportation						
MVT-4: Potential cumulatively increased risk of marine vessel conflict during construction	MM MVT-4: Schedule proposed Project construction so as to avoid the presence of a cable lay vessel within 1.15 miles (1 nm) of vessels performing borehole	Sea route.	Verify scheduling and locations of cable laying and borehole projects.	Conflicts between marine vessels avoided.	CSLC/MBNMS	During construction.

Impact	Mitigation Measure	Location	Monitoring / Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	construction.					
Noise						
NOI-1: Construction equipment could cause noise levels exceeding the 85 dBA limit of the Monterey County Noise Control Ordinance	MM NOI-1a: Muffle, shield, or enclose the HDD activity.	HDD site.	Measure noise level at 50 feet with County-approved noise meter.	Noise levels reduced below 85 dBA at 50 feet from the HDD site.	CSLC/ MBNMS	During HDD operations.

4. Monitoring Measures

The following monitoring measures shall be completed as part of this permit:

Monitoring Program

Affected Resource Area	Applicant-Proposed Protective Measures	Location	Monitoring / Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
Geology and Soils, Marine Water and Sediment Quality and Oceanography	Place cable as perpendicular to slopes as possible and avoid possible areas of sediment slump or slides.	Sea route.	Review cable route in comparison to seafloor profile prior to cable laying. Review post-lay inspection results.	During post-lay inspection, verify that the cable is laid perpendicular to steep slopes to the maximum extent possible.	CSLC/ MBNMS	Before, during, and after cable installation.
Commercial and Recreational Fisheries	In the event fishing gear cannot be removed from the cable by surface vessels, the Applicant will utilize an ROV to remove the gear from the cable. If all attempts to remove the gear fail, the gear would be left in place but rendered incapable of harvesting marine resources.	Sea route.	Notify MBNMS if cable snag and gear entanglement.	Verify that gear has been removed from cable and fishermen compensated for lost gear.	CSLC/ MBNMS	After cable installation.

Affected Resource Area	Applicant-Proposed Protective Measures	Location	Monitoring / Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	In areas where cable burial is not possible, additional cable armoring consisting of single armor light cable sheathing will be used and fishers will be notified of locations of exposed cables.	Sea route.	Review plans for cable armoring prior to installation.	Verify that additional armoring is used in all locations where cable is exposed.	CSLC/MBNMS	Before, during, and after cable installation.
	Provide notice to the Moss Landing Harbor District and work with the District to provide notice of the cable laying operation to vessels that operate out of Moss Landing Harbor.	Sea route.	Verify that the Moss Landing Harbor District received notification.	Review methods used by the Moss Landing Harbor District to notify vessel operators and evaluate the effectiveness of the notification methods.	CSLC/MBNMS	Before cable installation.
Marine and Near-Coastal Biological Resources	Establish a 500-meter minimum safety zone along the proposed cable route to avoid marine mammals.	Sea route.	Confirm that a safety zone has been established and procedures implemented for suspending cable laying if a marine mammal enters the safety zone.	Verify that purpose of the safety zone is understood by the vessel crew and procedures for suspending cable laying are followed.	CSLC/MBNMS	During cable installation.
	Two NOAA Fisheries-approved marine mammal monitors will be on watch on each vessel (cable-lay and support vessels) during cable laying activities to ensure that any marine mammal entering the established (minimum) 500-foot (152-m) safety zone is sighted.	Sea route.	Monitor and report the presence of marine mammals in the safety zone.	Verify that cable laying is suspended when a marine mammal enters the safety zone.	CSLC/MBNMS	During cable installation.
	Limit cable-laying vessel speed limits to less than 2 knots. Moderate speed of support vessels (3-5 knots) to minimize the likelihood of collisions with marine mammals and sea turtles.	Sea route.	Monitor vessel speed during cable laying operations.	Verify that vessel speed is moderated and collisions with marine mammals and sea turtles are avoided.	CSLC/MBNMS	During cable installation.
	Reduce or minimize	Sea	Monitor vessel	Verify that	CSLC/	During

Affected Resource Area	Applicant-Proposed Protective Measures	Location	Monitoring / Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	propeller noise (through reduction of vessel speed) and other noises associated with cable laying activities to the extent possible.	route.	speed during cable laying operations.	vessel speeds are kept to the minimum to the extent possible during cable laying operations.	MBNMS	cable installation.
	Minimize the amount of external lighting at night and shield lights downwards in order to minimize marine bird-vessel collisions.	Sea route.	Monitor the amount of external lighting in use during night operations.	Verify that all unnecessary vessel lights are kept off during nighttime cable laying operations.	CSLC/ MBNMS	During cable installation.
	Develop and implement a Marine Mammal Monitoring Plan that will be utilized during cable installation.	Sea route.	Confirm that the protocols prescribed in the approved Marine Mammal Monitoring Plan are followed during cable installation.	Verify that is the protocols are understood by the marine mammal monitors and crew and that the protocols serve to avoid collisions and other direct effects on marine mammals in the area.	CSLC/ MBNMS	During cable installation.
Marine Water and Sediment Quality and Oceanography	An approved Spill Prevention Control and Countermeasure Plan will be implemented during all cable laying and operation/ maintenance activities.	Sea route.	Confirm approval of the Spill Prevention Control and Countermeasure Plan prior to cable installation. Monitor spill clean-up for compliance with all applicable plan procedures.	Verify that the Spill Prevention Control and Countermeasure Plan is properly implemented in the event of a spill.	CSLC/ MBNMS	During cable installation and operation.
	A fast response vessel will be available during installation with an absorbent boom for spill control.	Sea route.	Confirm the availability of the fast response vessel during all cable laying operations and that it is properly equipped with	Verify that the fast response vessel is able to quickly respond to a spill and effectively deploy the absorbent boom.	CSLC/ MBNMS	During cable installation.

Affected Resource Area	Applicant-Proposed Protective Measures	Location	Monitoring / Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
			an absorbent boom.			
	Avoid grapnel retrieval near outcrops by consulting charts and relocating repair to soft substrate.	Sea route.	Confirm that grapnel retrieval near outcrops does not proceed until proper charts are consulted.	Verify that outcrops are not damaged by grapnel retrieval.	CSLC/MBNMS	During cable installation and cable repair operations.
	In the event that a repair in a heavily fished area is necessary, notify fishermen and charter a local fishing vessel to patrol the area to minimize the possibility of interference with fishing operations.	Sea route.	Confirm that notice is provided to fishermen and that a vessel is chartered to patrol the area.	Verify that noticing and patrols are effective in keeping fishing vessels away from the immediate area.	CSLC/MBNMS	During cable repair operations.
	Place plastic barriers under drilling equipment and oil absorbent blankets around hydraulic components to add protection between the rig and ground surface in order to contain potential spills.	HDD site.	Confirm the placement of barriers and blankets prior to the initiation of drilling.	In the event of a spill, verify that the installed barriers and blankets are effective in containing the spill.	CSLC/MBNMS	During HDD operations.
	Prior to HDD operations, construction personnel shall attend an environmental training session conducted by the Environmental Monitor.	HDD site.	All HDD construction personnel must provide proof of completion of environmental training.	Verify that procedures and practices emphasized in the training session are followed during HDD.	CSLC/MBNMS	During HDD operations.
	Once all the HDD equipment is in place, place silt fence and hay bales around the work perimeter and around	HDD site.	Confirm the placement of silt fences and hay bales around the work perimeter.	Verify that the fencing and hay bales are effective in minimizing	CSLC/MBNMS	During HDD operations.

Affected Resource Area	Applicant-Proposed Protective Measures	Location	Monitoring / Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	During the HDD operation, as each joint of pipe is set onto the drill rig, perform a visual inspection to make sure no debris is sent down the pipe that could cause a problem during cable installation.	HDD site.	Verify with HDD personnel that they have conducted visual inspections as each joint of pipe is set onto the drill rig.	If cable installation is hindered, determine whether the hindrance could be a result of debris introduced into the conduit during HDD.	CSLC/MBNMS	During HDD operations.
	During the HDD operation, constantly monitor the drill path for surface releases and maintain constant communication between the monitoring vessel and the control cab at all times.	HDD site.	The monitors will be kept constantly informed of the progress of the drill head so as to be able to concentrate their search for any indications of an inadvertent release of drilling fluids.	If any inadvertent release of drilling fluid occurs, verify whether monitors were able to identify the release quickly based on the information they were provided on drill head location.	CSLC/MBNMS	During HDD operations.
	In the event of a subsurface release, divers equipped with specialized water lifts (pumps) and filter bags will remove bentonite from the sea floor.	HDD site.	Monitor for any subsurface releases and confirm the deployment of properly equipped divers.	Interview divers and inspect filter bags to determine the effectiveness of bentonite removal.	CSLC/MBNMS	During HDD operations.
	In the event of a bentonite release on land, immediately contain the release and transfer the fluid back to the drill site for reuse or into a storage tank and removed from the site.	HDD site.	Monitor the containment and transfer of the bentonite.	Verify that containment procedures are implemented promptly and that bentonite is fully retrieved.	CSLC/MBNMS	During HDD operations.
	Once the HDD operation is complete, return the work area to its original condition or better to the satisfaction of all permitting agencies, public works	HDD site.	Monitor work site clean up to verify removal of all equipment and materials. Monitor actions to restore the ground surface	Verify that the site is returned to its original condition and that permitting agencies and inspectors are satisfied with	CSLC/MBNMS	During HDD operations.

Affected Resource Area	Applicant-Proposed Protective Measures	Location	Monitoring / Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	inspectors, and supervising engineer.		and vegetation.	the restoration of the site.		
Marine Vessel Transportation	The Applicant will coordinate cable laying activities with the U.S. Coast Guard regarding publication of a notice in the U.S. Coast Guard's Local Notice to Mariners.	Sea route.	Notify U.S. Coast Guard regarding cable laying activities.	Verify that Notice to Mariners has been issued.	CSLC/ MBNMS	Before, during, and after cable installation.

California State Lands Commission
General Lease—Right of Way Use
File Ref: W25980/R12903
Issued: August 8, 2005

APPLICANT: MONTEREY BAY AQUARIUM RESEARCH INSTITUTE

PROJECT: MONTEREY ACCELERATED RESEARCH SYSTEM CABLED
OBSERVATORY (MARS)

Proposed Lease Condition:

18. To prevent or minimize losses to commercial fishermen licensed to operate in Monterey Bay that may occur if fishing gear is damaged by, or lost on, the authorized improvements, the Lessee shall:
 - a) Within 90 calendar days of acceptance by the Lessee of the work as complete by the contractor, Lessee shall distribute to any fisherman legally authorized to trawl in the Lease Premises such written documentation indicating the "as-built" Cable coordinates and Cable burial depths as are reasonably necessary to show the accurate position and depth of the Cable. Such documentation shall also be filed with the Office of the Moss Landing Harbor Master, with Monterey Bay Accelerated Research Institute, with the Monterey Bay National Marine Sanctuary office in Monterey, California, and with the California Department of Fish and Game, Marine Region Headquarters in Monterey, California. Such documentation shall also be made available from Lessee on request;
 - b) Within 90 calendar days after Lessee's final acceptance of the Project as complete, Lessee shall provide necessary information to NOAA so navigational charts and aids can accurately show the location and depth of the Cable. Lessee shall supply the same information to the U.S. Coast Guard by a Local Notice to Mariners;
 - c) Lessee shall meet once with the designated representative(s) of the Alliance of Communities for Sustainable Fisheries (ACSF) and trawlers legally authorized to fish in the Lease Premises, prior to installation to coordinate Lessee and commercial fishing activities to avoid navigational and spatial conflicts, and to discuss operational issues to include, but not be limited to, fishing procedures to be followed in the vicinity of the Cable, and coordination between fishermen and Lessee research and service activities. Lessee shall participate in a similar meeting within three months after Lessee's final acceptance of the Project as complete, and thereafter, quarterly for the remainder of the first year of Cable operation, every six months during the second year, and thereafter at least once annually. The meetings shall take

place at a time and location in Monterey County, California selected by ACSF and convenient to fishermen, to exchange information and to address any administrative or other issues which have arisen in connection with the Cable. Lessee shall designate a Fisheries Liaison ("Liaison") to coordinate with licensed fishermen for the same purposes on an ongoing basis throughout the Lease term;

- d) Lessee shall maintain its existing, fully-staffed 24-hour telephone hotline and shall provide the hotline telephone number and the name of the Liaison, in writing, to any fisherman licensed to trawl in the Lease Premises and to any other party who requests such information. Lessee shall also provide its hotline number to NOAA for inclusion in the Notice to Pilots. Should Lessee's hotline number or Liaison change, Lessee shall provide its new number to those persons and entities listed in this sub-paragraph (d) and in sub-paragraphs (a) and (c) immediately above. If a fisherman believes he or she has snagged or damaged the Cable, he or she shall immediately notify Lessee, through Lessee's 24-hour hotline, of the location of his or her vessel by GPS coordinates at the time of the actual or suspected snag or damage. If, due to serious adverse weather conditions or other emergency conditions, the fisherman is unable to immediately contact Lessee, he or she shall note the date, time and location of the actual or suspected snag, and shall thereafter provide notice to Lessee of the actual or suspected Cable snag or injury as soon as the emergency conditions have abated. Lessee will, pursuant to the provisions of Paragraph 20(e), immediately investigate the report and provide its findings on damage to the Cable, on written request, to the fisherman involved, within 10 days after Lessee obtains such findings. Such documentation shall also be made available from Lessee on request;
- e) After notice by a fisherman legally authorized to trawl in the Lease Premises to Lessee on Lessee's hotline, of a suspected or actual snag of, or other damage to, the Cable, and if, at Lessee's direction, the fisherman immediately sacrifices trawling gear which snags the Cable, Lessee will pay one hundred percent (100%) of actual reasonable retail replacement cost of gear comparable to the sacrificed gear, or the reasonable cost to repair any damaged gear, and the wholesale market value, at the fisherman's port of destination, of any catch lost with the gear. The Liaison will consult with the designated representative(s) of the ACSF and may consult with other licensed fishermen regarding any submitted claim. Lessee is not required by this Lease to pay claims unless Lessee is notified on its hotline number by fisherman within 24 hours of any actual or suspected Cable snag or damage;
- f) Lessee's payment for damaged or sacrificed gear and lost catch will be made as soon as possible but no later than ten (10) days after Lessee has been provided written documentation, including invoices or bids for the replacement cost of the gear or the reasonable cost to repair the gear, and the

wholesale market value of the lost catch with certification of a claim form that the claim for payment is being made by the owner of the sacrificed or damaged gear;

- g) Lessee will release all claims against any fisherman legally authorized to trawl in the Lease Premises who, while using reasonable care, snags the Cable, if the fisherman immediately notifies Lessee of the snag or other contact with the Cable on Lessee's hotline and cuts loose his or her gear, as directed by Lessee, to prevent further damage to the Cable. Lessee will also refrain from taking any administrative, legal, or other action to sanction and/or recover damages against a fisherman who notifies Lessee of a probable snag or damage on Lessee's hotline and who is directed by Lessee to cut loose his or her gear to prevent further damage to the Cable. Lessee is not required by this Lease to release claims for Cable damage or refrain from taking administrative or legal action against a fisherman who damages the Cable, unless Lessee is notified on its hotline number by the fisherman within 24 hours of any actual or suspected snag or damage.
- h) Lessee will agree to submit, no later than 30 days after a dispute arises, any dispute with a fisherman legally authorized to trawl in the Lease Premises over reimbursement for lost or damaged gear or lost catch to mediation by a mediator mutually selected by the parties. As used in this provision, the term mediator includes any individual deemed to be independent by the parties and may include, for example, a representative of a committee associated with any other West Coast Cable. Lessee will agree to pay half the costs of any mediation. If the dispute is not resolved by mediation within 30 days, Lessee will agree to submit the dispute to binding arbitration before a single arbitrator selected by mutual agreement of the parties, or if the parties cannot agree, then selected in accordance with the California Arbitration Act then in effect (Code. Civ. Proc. §1280, et. seq.), with said arbitration to occur no later than 60 days after the dispute arose. Lessee will also agree that the arbitrator will be authorized to award any arbitration costs and attorneys' fees incurred in the arbitration to the prevailing party in the arbitration as a part of the arbitrator's award.