



Los Angeles Regional Water Quality Control Board

September 5, 2017

Cindy Wilcox
Marine BioEnergy, Inc.
4408 Union Avenue
La Canada, CA 91001

VIA CERTIFIED MAIL
RETURN RECEIPT REQUESTED
No. 7016 0750 0000 8035 3643

Dear Ms. Wilcox:

RE: CLEAN WATER ACT SECTION 401 WATER QUALITY CERTIFICATION AND ORDER FOR THE EXPERIMENTAL DEPTH CYCLING OF KELP (4WQC40117065)

Enclosed please find a CLEAN WATER ACT SECTION 401 WATER QUALITY CERTIFICATION AND ORDER, authorized by Los Angeles Regional Water Quality Control Board Executive Officer, Samuel Unger. This Order is issued to Cindy Wilcox, Marine BioEnergy Inc. for Experimental Depth Cycling of Kelp (Project). Attachments A through C of the Enclosure are also part of the Order.

This Order is issued in response to an application submitted by Marine BioEnergy, Inc. for proposed Project discharge to waters of the state, to ensure that the water quality standards for all waters of the state impacted by the Project are met. You may proceed with your Project according to the terms and conditions of the enclosed Order.

If you require further assistance, please contact me by phone at (213) 576-6759 or by email at Valerie.CarrilloZara@waterboards.ca.gov. You may also contact LB Nye, Senior Environmental Scientist, by phone at (213) 576-6785 or by email at LB.Nye@waterboards.ca.gov.

Sincerely,

LB Nye, Senior Environmental Scientist
Section 401 Certification and Wetlands Unit
Los Angeles Water Quality Control Board

Enclosures (1): Order for Experimental Depth Cycling of Kelp, File No. 17-065

cc: [Via email only] (w/ enclosure):

Jessica Dutton
Diane Kim
USC Wrigley Institute

Bill Orme
CWA Section 401 WQC Program
Division of Water Quality
State Water Resources Control Board
P.O. Box 944213
Sacramento, CA 94244-2130

Melissa Scianni
U.S. Environmental Protection Agency, Region 9
75 Hawthorne Street
San Francisco, CA 94105

Daniel P. Swenson
Army Corps of Engineers
Regulatory Branch, Los Angeles District
915 Wilshire Blvd., Suite 1101
Los Angeles, CA 90017

California Coastal Commission
South Coast District Office
200 Ocean Gate, 10th Floor
Long Beach, CA 90802



EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIGUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Los Angeles Regional Water Quality Control Board

CLEAN WATER ACT SECTION 401 WATER QUALITY CERTIFICATION AND ORDER

Effective Date: Date Signed

Program Type: Fill/Excavation

Project Type: Data Collection

Project: Experimental Depth Cycling of Kelp (Project)

Applicant: Marine BioEnergy, Inc.

Applicant Contact: Cindy Wilcox
MaineEnergy, Inc.
4408 Union Avenue
La Canada, CA 91001
Phone: (818) 952-6018
Email: cindy.wilcox@marinebiomass.com

Applicant's Agent: Jessica Dutton
Diane Kim
USC Wrigley Institute
University of Southern California
3454 Trousdale Parkway, CAS 200
Los Angeles, CA 90089
Phone: (213) 740-9888/ (213) 740-8776
Email: jmdutton@usc.edu / dianekim@usc.edu

Water Board Staff: Valerie Carrillo Zara
Engineering Geologist
320 W. 4th Street, Suite 200
Los Angeles, CA 90013
Phone: (213) 576-6759
Email: Valerie.carrillozara@waterboards.ca.gov

Reg. Meas. ID:	413152
Place ID:	835070
WDID:	4WQC40117065
USACOE#:	SPL-2017-00118
	Letter of Permission
R4 File No	17-065

Table of Contents

I. Order.....3

II. Public Notice3

III. Project Purpose.....3

IV. Project Description3

V. Project Location4

VI. Project Impact and Receiving Waters Information5

VII. Description of Direct Impacts to Waters of the State.....5

VIII. Compensatory Mitigation.....5

IX. California Environmental Quality Act (CEQA)5

X. Petitions for Reconsideration.....6

XI. Fees Received6

XII. Conditions6

XIII. Water Quality Certification.....12

- Attachment A** Signatory Requirements
- Attachment B** Map
- Attachment C** Report and Notification Requirements

I. Order

This Clean Water Act (CWA) section 401 Water Quality Certification action and Order (Order) is issued at the request of Maine BioEnergy, Inc. (herein after Permittee) for the Project. This Order is for the purpose described in application submitted by the Permittee. The application was received on May 8, 2017.

II. Public Notice

The Los Angeles Water Board provided public notice of the application pursuant to California Code of Regulations, title 23, section 3858 from May 9, 2017 to the effective date of Order. The Los Angeles Water Board did not receive any comments during the comment period.

III. Project Purpose

The purpose of the proposed project is to test an economical system for cultivating kelp in the open ocean, which would demonstrate if it is possible to farm kelp in large scale for biofuel conversion. If successful, this project will validate a new system for open water kelp cultivation and potentially enable kelp farming in extensive regions of the mid-latitude open ocean.

IV. Project Description

Based on a patented concept, the Permittee proposes to install up to four temporary moorings in the waters off Catalina Island to conduct early stage kelp testing for the future open ocean operation. Temporary moorings will be used to test depth-cycling impacts on locally acquired kelp species. Researchers will affix kelp to the moored structures, and monitor the growth rate and other indicators of health over multiple approximate 30-day cycles. To test whether or not the kelp will survive and biologically thrive under experimental conditions, the Permittee will compare a suite of biological and chemical response metrics in kelp exposed to depth cycling with a stationary control group maintained at a near-surface depth.

The systems will use vertically-moveable kelp support structures to translocate kelp between experimental depths (kelp elevator). During the day, the moored structures will be located near the surface to gather sunlight for photosynthesis. At night, a winch will lower the structures below the thermocline where the kelp can absorb nutrients that would not be available in surface waters. Target species will be locally acquired *Macrocystis pyrifera* and *Laminaria farlowii*. If these species do not successfully tolerate experimental treatment, the Applicant may decide to conduct subsequent test with back-up local species including *Egregia menziesii* and/or *Pelogophcus porra*.

All moorings will consist of a taunt anchor cable buoyed by a Surlyn foam flotation buoy, supporting a subsurface fiberglass extruded frame with fiberglass kelp support structures. Each of the buoys will be anchored to the bottom with a 700-pound "Dor-Mor" cast-iron pyramid anchor. Connected to the anchor will be a heavy anchor chain, the length of the chain will be 1.5 times the depth of the water at each buoy location. To the end of that chain will be attached a 1" nylon anchor rope with length equal to the depth of the water. So, in low wind and current, the chain mostly lies on the bottom and the rope goes nearly straight down from the buoy.

Research activities will be divided into two phases:

- Shallow Depth and Nursery Phase (Years 1-3): Moorings will be anchored near-shore in ~82-84 m water. Control kelp will be held stationary, while on the experimental mooring the kelp will be cycled from the near surface to depths of ~40m.

Broodstock *Macrocystis* material from local Catalina kelp beds will additionally be collected to cultivate young kelp in USC's onshore nursery; if successful, these individuals will also be deployed on the moorings to test survivorship and health. Based on the success of these trials, the study may be replicated using *Laminaria*. Other locally available kelp species may be considered in Year 2 if these initial species do not succeed.

- Deep Water Phase: (Years 2-3): Based on results from the Shallow Depth testing of this study in Year 1, the Permittee will test identical biological metrics under greater depth treatments, installing an experimental system in deeper waters offshore Catalina Island and comparing that kelp performance to control and shallow installations maintained at the original near-shore location.

V. Project Location

Project is located in the open waters off the Catalina Island, in Los Angeles County. A map showing the Project location is found in Attachment B of this Order.

Shallow Site (SS), 2 moorings:

[SS Elevator - 33°28'19.42"N, 118°30'54.20"W]

[SS Control - 33°28'12.83"N, 118°30'44.08"W]

One set of boundary coordinates for both moorings, distance from shore: 0.6 miles / Depth ~82-84m.

- A. 33°28'18.99"N, 118°31'3.39"W
- B. 33°28'26.98"N, 118°30'54.80"W
- C. 33°28'5.22"N, 118°30'43.40"W
- D. 33°28'13.39"N, 118°30'34.78"W

Deep Site A (DS-A), 1 mooring:

[DS-A Elevator - 33°28'12.78"N, 118°29'33.30"W]

Distance from shore: 1.2 miles / Depth ~169 m

- A. 33°28'23.90"N, 118°29'46.16"W
- B. 33°28'23.34"N, 118°29'20.01"W
- C. 33°28'1.73"N, 118°29'20.26"W
- D. 33°28'2.05"N, 118°29'46.65"W

Deep Site B (DS-B), 2 moorings:

[DS-B Elevator - 33°30'37.60"N, 118°30'55.60"W]

[DS-B Control - 33°30'57.78"N, 118°32'24.60"W]

DS-B Elevator, Distance from shore: 2.6 miles / Depth ~580 m

- A. 33°31'11.21"N, 118°31'10.93"W
- B. 33°30'51.27"N, 118°30'14.99"W
- C. 33°30'4.26"N, 118°30'39.10"W
- D. 33°30'25.03"N, 118°31'36.58"W

DS-B Control, Distance from shore: 2.6 miles / Depth ~490 m

- A. 33°31'23.77"N, 118°32'46.96"W
- B. 33°31'15.68"N, 118°31'53.87"W
- C. 33°30'31.98"N, 118°32'2.47"W
- D. 33°30'40.27"N, 118°32'55.70"W

VI. Project Impact and Receiving Waters Information

The Project is located within the jurisdiction of Los Angeles Regional Water Quality Control Board. Receiving waters and groundwater potentially impacted by this Project are protected in accordance with the applicable water quality control plan (Basin Plan) for the region and other plans and policies which may be accessed online at:

http://www.waterboards.ca.gov/plans_policies/. The Basin Plan includes water quality standards, which consist of existing and potential beneficial uses of waters of the state, water quality objectives to protect those uses, and the state and federal antidegradation policies.

Receiving Water: Pacific Ocean

Designated Beneficial Uses: NAV, REC-1, REC-2, COMM, MAR, WILD, BIOL, RARE, SPWN, SHELL

VII. Description of Direct Impacts to Waters of the State

Direct temporary impacts to waters of the State will be associated with the installation of four (4) 700- pound "Dor-Mor" cast-iron anchors, which are necessary to anchor each buoy to the bottom. Each anchor/mooring is approximately 3 square feet.

Total Project fill/excavation quantities for all impacts are summarized in Table 1.

Aquatic Resource Type	Temporary Impact ¹			Permanent Impact					
	Acres	CY ²	LF	Acres	CY	LF	Acres	CY	LF
Ocean	0.0003								

VIII. Compensatory Mitigation

The Permittee is required to restore the areas of temporary impacts; the Los Angeles Water Board will not require any additional compensatory mitigation because impacts are temporary in nature. All structures associated with the moorings will be removed at the end of the study.

IX. California Environmental Quality Act (CEQA)

¹ Includes only temporary direct impacts to waters of the state and does not include upland areas of temporary disturbance which could result in a discharge to waters of the state.

² Cubic Yards (CY); Linear Feet (LF)

The Los Angeles Water Board has determined that the Project is exempt from review under CEQA pursuant to California Water Code of Regulations, title 14, section 15061. Specifically, the issuance of this Order and the activities described herein meet the exemption criteria under California Code of Regulations title 14, section(s) 15061 Information Collection. Additionally, the Los Angeles Water Board concludes that no exceptions to the CEQA exemption apply to the activities approved by this Order.

X. Petitions for Reconsideration

Any person aggrieved by this action may petition the State Water Board to reconsider this Order in accordance with California Code of Regulations, title 23, section 3867. A petition for reconsideration must be submitted in writing and received within 30 calendar days of the issuance of this Order.

XI. Fees Received

An application fee of \$720.00 was received on June 30, 2017. The fee amount was determined as required by California Code of Regulations, title 23, sections 3833(b)(3) and 2200(a)(3), and was calculated as category E - Low Impact Discharges (fee code 19) with the dredge and fill fee calculator.

XII. Conditions

The Los Angeles Water Board has independently reviewed the record of the Project to analyze impacts to water quality and designated beneficial uses within the watershed of the Project. In accordance with this Order, the Permittee may proceed with the Project under the following terms and conditions:

A. Authorization

Impacts to waters of the state shall not exceed quantities shown in Table 1.

B. Reporting and Notification Requirements

The following section details the reporting and notification types and timing of submittals. Requirements for the content of these reporting and notification types are detailed in Attachment C, including specifications for photo and map documentation during the Project. Written reports and notifications must be submitted using the Reporting and Notification Cover Sheet located in Attachment C, which must be signed by the Permittee or an authorized representative.

1. Project Reporting

- a. **Annual Reporting:** The Permittee shall submit an Annual Report each year on the anniversary of Project effective date. Annual reporting shall continue until a Notice of Project Complete Letter is issued to the Permittee.

2. Project Status Notifications

- a. **Commencement of Construction:** The Permittee shall submit a Commencement of Construction Report at least seven (7) days prior to start of initial ground disturbance activities.

- b. Request for Notice of Completion of Discharges Letter:** The Permittee shall submit a Request for Notice of Completion of Discharges Letter following completion of active Project construction activities, including any required restoration and permittee-responsible mitigation. This request shall be submitted to the Los Angeles Water Board staff within thirty (30) days following completion of all Project construction activities. Upon acceptance of the request, Los Angeles Water Board staff shall issue a Notice of Completion of Discharges Letter to the Permittee which will end the active discharge period and associated annual fees.
- c. Request for Notice of Project Complete Letter:** The Permittee shall submit a Request for Notice of Project Complete Letter when construction and/or any post-construction monitoring is complete,³ and no further Project activities will occur. This request shall be submitted to Los Angeles Water Board staff within thirty (30) days following completion of all Project activities. Upon approval of the request, the Los Angeles Water Board staff shall issue a Notice of Project Complete Letter to the Permittee which will end the post discharge monitoring period and associated annual fees.

3. Conditional Notifications and Reports: The following notifications and reports are required as appropriate.

a. Accidental Discharges of Hazardous Materials⁴

Following an accidental discharge of a reportable quantity of a hazardous material, sewage, or an unknown material, the following applies (Wat. Code, § 13271):

- i. As soon as (A) Permittee has knowledge of the discharge or noncompliance, (B) notification is possible, and (C) notification can be provided without substantially impeding cleanup or other emergency measures then:
1. first call – 911 (to notify local response agency)
 2. then call – Office of Emergency Services (OES) State Warning Center at: (800) 852-7550 or (916) 845-8911
 3. Lastly follow the required OES procedures as set forth in:
http://www.caloes.ca.gov/FireRescueSite/Documents/CalOES-Spill_Booklet_Feb2014_FINAL_BW_Acc.pdf
- ii. Following notification to OES, the Permittee shall notify Los Angeles Water Board, as soon as practicable (ideally within 24 hours). Notification may be via telephone, e-mail, delivered written notice, or other verifiable means.

³ Completion of post-construction monitoring shall be determined by Los Angeles Water Board staff and shall be contingent on successful attainment of restoration and mitigation performance criteria.

⁴ "Hazardous material" means any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. "Hazardous materials" include, but are not limited to, hazardous substances, hazardous waste, and any material that a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment. (Health & Saf. Code, § 25501.)

- iii. Within five (5) working days of notification to the Los Angeles Water Board, the Permittee must submit an Accidental Discharge of Hazardous Material Report.
- b. Violation of Compliance with Water Quality Standards:** The Permittee shall notify the Los Angeles Water Board of any event causing a violation of compliance with water quality standards. Notification may be via telephone, e-mail, delivered written notice, or other verifiable means.
- i. Examples of noncompliance events include: lack of storm water treatment following a rain event, discharges causing a visible plume in a water of the state, and water contact with uncured concrete.
 - ii. This notification must be followed within three (3) working days by submission of a Violation of Compliance with Water Quality Standards Report.
- c. Modifications to Project**
Project modifications may require an amendment of this Order. The Permittee shall give advance notice to Los Angeles Water Board staff if Project implementation as described in the application materials is altered in any way or by the imposition of subsequent permit conditions by any local, state or federal regulatory authority by submitting a Modifications to Project Report. The Permittee shall inform Los Angeles Water Board staff of any Project modifications that will interfere with the Permittee's compliance with this Order. [Click here to enter text.](#)
- d. Transfer of Property Ownership:** This Order is not transferable in its entirety or in part to any person or organization except after notice to the Los Angeles Water Board in accordance with the following terms:
- i. The Permittee must notify the Los Angeles Water Board of any change in ownership or interest in ownership of the Project area by submitting a Transfer of Property Ownership Report. The Permittee and purchaser must sign and date the notification and provide such notification to the Los Angeles Water Board at least 10 days prior to the transfer of ownership. The purchaser must also submit a written request to the Los Angeles Water Board to be named as the permittee in a revised order.
 - ii. Until such time as this Order has been modified to name the purchaser as the permittee, the Permittee shall continue to be responsible for all requirements set forth in this Order.

C. Water Quality Monitoring

1. **General:** Continuous visual surface water monitoring shall be conducted to detect accidental discharge of construction related pollutants (e.g. oil and grease, turbidity plume, or uncured concrete). Waters shall not contain oils, greases, waxes or other materials in concentrations that result in a visible film or coating on the surface of the water or on objects in the water, that cause nuisance, or that otherwise adversely affect beneficial uses.

- 2. Accidental Discharges/Noncompliance:** Upon occurrence of an accidental discharge of hazardous materials or a violation of compliance with a water quality standard, Los Angeles Water Board staff may require water quality monitoring based on the discharge constituents and/or related water quality objectives and beneficial uses.

D. Standard

1. This Order is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to Water Code section 13330, and California Code of Regulations, title 23, chapter 28, Article 6 commencing with sections 3867-3869, inclusive. Additionally, the Los Angeles Water Board reserves the right to suspend, cancel, or modify and reissue this Order, after providing notice to the Permittee, if the Los Angeles Water Board determines that: the Project fails to comply with any of the conditions of this Order; or, when necessary to implement any new or revised water quality standards and implementation plans adopted or approved pursuant to the Porter-Cologne Water Quality Control Act (Wat. Code, § 13000 et seq.) or federal Clean Water Act section 303 (33 U.S.C. § 1313). For purposes of Clean Water Act section 401(d), the condition constitutes a limitation necessary to assure compliance with water quality standards and appropriate requirements of state law.
2. This Order is not intended and shall not be construed to apply to any activity involving a hydroelectric facility requiring a Federal Energy Regulatory Commission (FERC) license or an amendment to a FERC license, unless the pertinent certification application was filed pursuant to subsection 3855(b) of chapter 28, title 23 of the California Code of Regulations, and that application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.
3. This Order is conditioned upon total payment of any fee required under title 23 of the California Code of Regulations and owed by the Permittee.
4. In the event of any violation or threatened violation of the conditions of this Order, the violation or threatened violation shall be subject to any remedies, penalties, process, or sanctions as provided for under state and federal law. For purposes of Clean Water Act, section 401(d), the applicability of any state law authorizing remedies, penalties, processes, or sanctions for the violation or threatened violation constitutes a limitation necessary to assure compliance with the water quality standards and other pertinent requirements incorporated into this Order.

E. General Compliance

1. Failure to comply with any condition of this Order shall constitute a violation of the Porter-Cologne Water Quality Control Act and the Clean Water Act. The Permittee and/or discharger may then be subject to administrative and/or civil liability pursuant to Water Code section 13385.
2. Permitted actions must not cause a violation of any applicable water quality standards, including impairment of designated beneficial uses for receiving waters as adopted in the Basin Plans by any applicable Los Angeles Water Board or any applicable State Water Board (collectively Water Boards) water quality control plan or policy. The source of any such discharge must be eliminated as soon as practicable.

3. In response to a suspected violation of any condition of this Order, the Los Angeles Water Board may require the holder of this Order to furnish, under penalty of perjury, any technical or monitoring reports the Water Boards deem appropriate, provide that the burden, including costs, of the reports shall bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports. The additional monitoring requirements ensure that permitted discharges and activities comport with any applicable effluent limitations, water quality standards, and/or other appropriate requirement of state law.
4. The Permittee must, at all times, fully comply with engineering plans, specifications, and technical reports submitted to support this Order; and all subsequent submittals required as part of this Order. The conditions within this Order and Attachments supersede conflicting provisions within Permittee submittals.
5. This Order and all of its conditions contained herein continue to have full force and effect regardless of the expiration or revocation of any federal license or permit issued for the Project. For purposes of Clean Water Act, section 401(d), this condition constitutes a limitation necessary to assure compliance with the water quality standards and other pertinent requirements of state law.

F. Administrative

1. Signatory requirements for all document submittals required by this Order are presented in Attachment A of this Order.
2. This Order does not authorize any act which results in the taking of a threatened, endangered or candidate species or any act, which is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish & G. Code, §§ 2050-2097) or the federal Endangered Species Act (16 U.S.C. §§ 1531-1544). If a "take" will result from any act authorized under this Order held by the Permittee, the Permittee must obtain authorization for the take prior to any construction or operation of the portion of the Project that may result in a take. The Permittee is responsible for meeting all requirements of the applicable endangered species act for the Project authorized under this Order.
3. The Permittee shall grant Los Angeles Water Board staff, or an authorized representative (including an authorized contractor acting as a Water Board representative), upon presentation of credentials and other documents as may be required by law, permission to:
 - a. Enter upon the Project or compensatory mitigation site(s) premises where a regulated facility or activity is located or conducted, or where records are kept.
 - b. Have access to and copy any records that are kept and are relevant to the Project or the requirements of this Order.
 - c. Inspect any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order.
 - d. Sample or monitor for the purposes of assuring Order compliance.
4. A copy of this Order shall be provided to any consultants, contractors, and subcontractors working on the Project. Copies of this Order shall remain at the Project

site for the duration of this Order. The Permittee shall be responsible for work conducted by its consultants, contractors, and any subcontractors.

5. A copy of this Order must be available at the Project site(s) during construction for review by site personnel and agencies. All personnel performing work on the Project shall be familiar with the content of this Order and its posted location at the Project site.
6. This certification shall expire five (5) years from date of Certification. The Applicant shall submit a complete application at least 90 days prior to termination of this Certification if renewal is requested.

G. Best Management Practices

1. All installations and removals shall be done by a trained mooring professional.
2. All vessels installing moorings or maintaining structures or operating the kelp systems shall not cause visible oil, grease, or foam in the work area.
3. All vessels installing moorings or maintaining structures or operating the kelp systems shall retain a spill plan and appropriate spill control and clean up materials (e.g., oil absorbent pads) onsite in case spills occur
4. Moorings, and structures and materials associated with the moorings, shall be removed in their entirety at the conclusion of the Project.
5. All trash and debris will be disposed of onshore.

XIII. Water Quality Certification

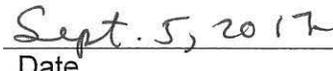
I hereby issue the Order for the Experimental Depth Cycling of Kelp, 4WQC40117065 certifying that as long as all of the conditions listed in this Order are met, any discharge from the referenced Project will comply with the applicable provisions of Clean Water Act sections 301 (Effluent Limitations), 302 (Water Quality Related Effluent Limitations), 303 (Water Quality Standards and Implementation Plans), 306 (National Standards of Performance), and 307 (Toxic and Pretreatment Effluent Standards).

This discharge is also regulated pursuant to State Water Board Water Quality Order No. 2003-0017-DWQ which authorizes this Order to serve as Waste Discharge Requirements pursuant to the Porter-Cologne Water Quality Control Act (Wat. Code, § 13000 et seq.).

Except insofar as may be modified by any preceding conditions, all Order actions are contingent on: (a) the discharge being limited and all proposed mitigation being completed in strict compliance with the conditions of this Order and the attachments to this Order; and, (b) compliance with all applicable requirements of Statewide Water Quality Control Plans and Policies, the Regional Water Boards' Water Quality Control Plans and Policies.



Samuel Unger, PE
Executive Officer
Los Angeles Water Quality Control Board



Date

Attachment A
Signatory Requirements

SIGNATORY REQUIREMENTS

*All Documents Submitted In Compliance With This Order
Shall Meet The Following Signatory Requirements:*

1. All applications, reports, or information submitted to the Los Angeles Water Quality Control Board (Los Angeles Water Board) must be signed and certified as follows:
 - a) For a corporation, by a responsible corporate officer of at least the level of vice-president.
 - b) For a partnership or sole proprietorship, by a general partner or proprietor, respectively.
 - c) For a municipality, or a state, federal, or other public agency, by either a principal executive officer or ranking elected official.
2. A duly authorized representative of a person designated in items 1.a through 1.c above may sign documents if:
 - a) The authorization is made in writing by a person described in items 1.a through 1.c above.
 - b) The authorization specifies either an individual or position having responsibility for the overall operation of the regulated activity.
 - c) The written authorization is submitted to the State Water Board Staff Contact prior to submitting any documents listed in item 1 above.
3. Any person signing a document under this section shall make the following certification:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."



Mooring sites (Yellow) and kelp collection sites (Red) at Catalina Island, CA. Also marked are: the Wrigley Marine Science Center (Green) where USC's laboratory facilities and research boats are based, as well as the Marine Protected Area boundaries (blue markers and white lines). Based on a Google Earth image.

Attachment C

Report and Notification Requirements

Copies of this Form

In order to identify your project, it is necessary to include a copy of the Project specific Cover Sheet below with your report: please retain for your records

Report Submittal Instructions

1. Check the box on the Report and Notification Cover Sheet next to the report or notification you are submitting.
 - **Part A (Annual Report):** This report will be submitted annually from the anniversary of Project effective date until a Notice of Project Complete Letter is issued.
 - **Part B (Project Status Notifications):** Used to notify the Los Angeles Water Board of the status of the Project schedule that may affect Project billing.
 - **Part C (Conditional Notifications and Reports):** Required on a case by case basis for accidental discharges of hazardous materials, violation of compliance with water quality standards, notification of in-water work, or other reports.
2. Sign the Report and Notification Cover Sheet and attach all information requested for the Report Type.
3. **Electronic Report Submittal Instructions:**
 - Submit signed Report and Notification Cover Sheet and required information via email to: Valerie.CarrilloZara@waterboards.ca.gov
 - Include in the subject line of the email:
Subject: ATTN: Valerie CarrilloZara; File No: 17-065, Reg. Measure ID: 413152_Report

Definition of Reporting Terms

1. **Active Discharge Period:** The active discharge period begins with the effective date of this Order and ends on the date that the Permittee receives a Notice of Completion of Discharges Letter or, if no post-construction monitoring is required, a Notice of Project Complete Letter. The Active Discharge Period includes all elements of the Project including site construction and restoration, and any Permittee responsible compensatory mitigation construction.
2. **Request for Notice of Completion of Discharges Letter:** This request by the Permittee to the Los Angeles Water Board staff pertains to projects that have post construction monitoring requirements, e.g. if site restoration was required to be monitored for 5 years following construction. Los Angeles Water Board staff will review the request and send a Completion of Discharges Letter to the Permittee upon

approval. This letter will initiate the post-discharge monitoring period and a change in fees from the annual active discharge fee to the annual post-discharge monitoring fee.

3. **Request for Notice of Project Complete Letter:** This request by the Permittee to the Los Angeles Water Board staff pertains to projects that either have completed post-construction monitoring and achieved performance standards or have no post-construction monitoring requirements, and no further Project activities are planned. Los Angeles Water Board staff will review the request and send a Project Complete Letter to the Permittee upon approval. Termination of annual invoicing of fees will correspond with the date of this letter.
4. **Post-Discharge Monitoring Period:** The post-discharge monitoring period begins on the date of the Notice of Completion of Discharges Letter and ends on the date of the Notice of Project Complete Letter issued by the Los Angeles Water Board staff. The Post-Discharge Monitoring Period includes continued water quality monitoring or compensatory mitigation monitoring.
5. **Effective Date:** Date of Order issuance.

Map/Photo Documentation Information

When submitting maps or photos, please use the following formats.

1. **Map Format Information:**

Preferred map formats of at least 1:24000 (1" = 2000') detail (listed in order of preference):

- **GIS shapefiles:** The shapefiles must depict the boundaries of all project areas and extent of aquatic resources impacted. Each shape should be attributed with the extent/type of aquatic resources impacted. Features and boundaries should be accurate to within 33 feet (10 meters). Identify datum/projection used and if possible, provide map with a North American Datum of 1983 (NAD38) in the California Teale Albers projection in feet.
- **Google KML files** saved from Google Maps: My Maps or Google Earth Pro. Maps must show the boundaries of all project areas and extent/type of aquatic resources impacted. Include URL(s) of maps. If this format is used include a spreadsheet with the object ID and attributed with the extent/type of aquatic resources impacted.
- **Other electronic format** (CAD or illustration format) that provides a context for location (inclusion of landmarks, known structures, geographic coordinates, or USGS DRG or DOQQ). Maps must show the boundaries of all project areas and extent/type of aquatic resources impacted. If this format is used include a spreadsheet with the object ID and attributed with the extent/type of aquatic resources impacted.
- Aquatic resource maps marked on paper **USGS 7.5 minute topographic maps** or **Digital Orthophoto Quarter Quads (DOQQ)** printouts. Maps must show the boundaries of all project areas and extent/type of aquatic resources impacted. If this format is used include a spreadsheet with the object ID and attributed with the extent/type of aquatic resources impacted.

2. **Photo-Documentation:** Include a unique identifier, date stamp, written description of photo details, and latitude/longitude (in decimal degrees) or map indicating location of photo. Successive photos should be taken from the same vantage point to compare pre/post construction conditions.

REPORT AND NOTIFICATION COVER SHEET

Project:	Experimental Depth Cycling of Kelp		
Permittee:	Marine BioEnergy Inc., Cindy Wilcox		
Reg. Meas. ID:	413152	Place ID:	835070
			File No: 17-065

Report Type Submitted

Part A – Project Reporting	
Report Type	<input type="checkbox"/> Annual Report
Part B - Project Status Notifications	
Report Type	<input type="checkbox"/> Commencement of Construction
Report Type	<input type="checkbox"/> Request for Notice of Completion of Discharges Letter
Report Type	<input type="checkbox"/> Request for Notice of Project Complete Letter
Part C - Conditional Notifications and Reports	
Report Type	<input type="checkbox"/> Accidental Discharge of Hazardous Material Report
Report Type	<input type="checkbox"/> Violation of Compliance with Water Quality Standards Report
Report Type	<input type="checkbox"/> In-Water Work/Diversions Water Quality Monitoring Report
Report Type	<input type="checkbox"/> Modifications to Project Report
Report Type	<input type="checkbox"/> Transfer of Property Ownership Report
Report Type	<input type="checkbox"/> Transfer of Long-Term BMP Maintenance Report

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

Print Name ¹

Affiliation and Job Title

Signature

Date

¹STATEMENT OF AUTHORIZATION (include if authorization has changed since application was submitted)

I hereby authorize _____ to act in my behalf as my representative in the submittal of this report, and to furnish upon request, supplemental information in support of this submittal.

Permittee's Signature

Date

*This Report and Notification Cover Sheet must be signed by the Permittee or a duly authorized representative and included with all written submittals.

Part A – Project Reporting

Report Type	Annual Report
Report Purpose	Notify the Los Angeles Water Board staff of Project status during both the active discharge and post-discharge monitoring periods.
When to Submit	Annual reports shall be submitted each year on the anniversary of Project effective date. Annual reports shall continue until a Notice of Project Complete Letter is issued to the Permittee.
Report Contents	<p>The contents of the annual report shall include the topics indicated below for each project period. Report contents are outlined in Annual Report Topics below.</p> <p><u>During the Active Discharge Period</u></p> <ul style="list-style-type: none"> • Topic 1: Construction Summary • Topic 2: Mitigation for Temporary Impacts Status • Topic 3: Compensatory Mitigation for Permanent Impacts Status <p><u>During the Post-Discharge Monitoring Period</u></p> <ul style="list-style-type: none"> • Topic 2: Mitigation for Temporary Impacts Status • Topic 3: Compensatory Mitigation for Permanent Impacts Status
Annual Report Topics (1-3)	
Annual Report Topic 1	Construction Summary
When to Submit	With the annual report during the Active Discharge Period.
Report Contents	<ol style="list-style-type: none"> 1. Project progress and schedule including initial ground disturbance, site clearing and grubbing, road construction, site construction, and the implementation status of construction storm water best management practices (BMPs). If construction has not started, provide estimated start date and reasons for delay. 2. Map showing general Project progress. 3. If applicable: <ol style="list-style-type: none"> a. Summary of Conditional Notification and Report Types 6 and 7 (Part C below). b. Summary of Certification Deviations. See Certification Deviation Attachment for further information.
Annual Report Topic 2	Mitigation for Temporary Impacts Status
When to Submit	With the annual report during both the Active Discharge Period and Post-Discharge Monitoring Period.

Report Contents	<ol style="list-style-type: none"> 1. Planned date of initiation and map showing locations of mitigation for temporary impacts to waters of the state and all upland areas of temporary disturbance which could result in a discharge to waters of the state. 2. If mitigation for temporary impacts has already commenced, provide a map and information concerning attainment of performance standards contained in the restoration plan.
Annual Report Topic 3	Compensatory Mitigation for Permanent Impacts Status
When to Submit	With the annual report during both the Active Discharge Period and Post-Discharge Monitoring Period.
Report Contents	<p>*If not applicable report N/A.</p> <p>Part A. Permittee Responsible</p> <ol style="list-style-type: none"> 1. Planned date of initiation of compensatory mitigation site installation. 2. If installation is in progress, a map of what has been completed to date. 3. If the compensatory mitigation site has been installed, provide a final map and information concerning attainment of performance standards contained in the compensatory mitigation plan. <p>Part B. Mitigation Bank or In-Lieu Fee</p> <ol style="list-style-type: none"> 1. Status or proof of purchase of credit types and quantities. 2. Include the name of bank/ILF Program and contact information. 3. If ILF, location of project and type if known.

Part B – Project Status Notifications

Report Type	Commencement of Construction
Report Purpose	Notify Los Angeles Water Board staff prior to the start of construction.
When to Submit	Must be received at least seven (7) days prior to start of initial ground disturbance activities.
Report Contents	<ol style="list-style-type: none"> 1. Date of commencement of construction. 2. Anticipated date when discharges to waters of the state will occur. 3. Project schedule milestones including a schedule for onsite compensatory mitigation, if applicable.

Report Type	Request for Notice of Completion of Discharges Letter
Report Purpose	Notify Los Angeles Water Board staff that post-construction monitoring is required and that active Project construction, including any mitigation and permittee responsible compensatory mitigation, is complete.
When to Submit	Must be received by Los Angeles Water Board staff within thirty (30) days following completion of all Project construction activities.
Report Contents	<ol style="list-style-type: none"> 1. Status of storm water Notice of Termination(s), if applicable. 2. Status of post-construction storm water BMP installation. 3. Pre- and post-photo documentation of all Project activity sites where the discharge of dredge and/or fill/excavation was authorized. 4. Summary of Certification Deviation discharge quantities compared to initial authorized impacts to waters of the state, if applicable. 5. An updated monitoring schedule for mitigation for temporary impacts to waters of the state and permittee responsible compensatory mitigation during the post-discharge monitoring period, if applicable.

Report Type	Request for Notice of Project Complete Letter
Report Purpose	Notify Los Angeles Water Board staff that construction and/or any post-construction monitoring is complete, or is not required, and no further Project activity is planned.
When to Submit	Must be received by Los Angeles Water Board staff within thirty (30) days following completion of all Project activities.
Report Contents	<p>Part A: Mitigation for Temporary Impacts</p> <ol style="list-style-type: none"> 1. A report establishing that the performance standards outlined in the restoration plan have been met for Project site upland areas of temporary disturbance which could result in a discharge to waters of the state. 2. A report establishing that the performance standards outlined in the restoration plan have been met for restored areas of temporary impacts to waters of the state. Pre- and post-photo documentation of all restoration

sites.

Part B: Permittee Responsible Compensatory Mitigation

3. A report establishing that the performance standards outlined in the compensatory mitigation plan have been met.
4. Status on the implementation of the long-term maintenance and management plan and funding of endowment.
5. Pre- and post-photo documentation of all compensatory mitigation sites.
6. Final maps of all compensatory mitigation areas (including buffers).

Part C: Post-Construction Storm Water BMPs

7. Date of storm water Notice of Termination(s), if applicable.
8. Report status and functionality of all post-construction BMPs.

Part C – Conditional Notifications and Reports

Report Type	Accidental Discharge of Hazardous Material Report
Report Purpose	Notifies Los Angeles Water Board staff that an accidental discharge of hazardous material has occurred.
When to Submit	Within five (5) working days following the date of an accidental discharge. Continue reporting as required by Los Angeles Water Board staff.
Report Contents	<ol style="list-style-type: none"> 1. The report shall include the OES Incident/Assessment Form, a full description and map of the accidental discharge incident (i.e. location, time and date, source, discharge constituent and quantity, aerial extent, and photo documentation). If applicable, the OES Written Follow-Up Report may be substituted. 2. If applicable, any required sampling data, a full description of the sampling methods including frequency/dates and times of sampling, equipment, locations of sampling sites. 3. Locations and construction specifications of any barriers, including silt curtains or diverting structures, and any associated trenching or anchoring.

Report Type	Violation of Compliance with Water Quality Standards Report
Report Purpose	Notifies Los Angeles Water Board staff that a violation of compliance with water quality standards has occurred.
When to Submit	The Permittee shall report any event that causes a violation of water quality standards within three (3) working days of the noncompliance event notification to Los Angeles Water Board staff.
Report Contents	The report shall include: the cause; the location shown on a map; and the period of the noncompliance including exact dates and times. If the noncompliance has not been corrected, include: the anticipated time it is expected to continue; the steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance; and any monitoring results if required by Los Angeles Water Board staff.

Report Type	In-Water Work and Diversions Water Quality Monitoring Report
Report Purpose	Notifies Los Angeles Water Board staff of the completion of in-water work.
When to Submit	Within three (3) working days following the completion of in-water work. Continue reporting in accordance with the approved water quality monitoring plan.
Report Contents	As required by the approved water quality monitoring plan.

Report Type	Modifications to Project Report
Report Purpose	Notifies Los Angeles Water Board staff if the Project, as described in the application materials, is altered in any way or by the imposition of subsequent permit conditions by any local, state or federal regulatory authority.
When to Submit	If Project implementation as described in the application materials is altered in any way or by the imposition of subsequent permit conditions by any local, state or federal regulatory authority.
Report Contents	A description and location of any alterations to Project implementation. Identification of any Project modifications that will interfere with the Permittee's compliance with the Order.

Report Type	Transfer of Property Ownership Report
Report Purpose	Notifies Los Angeles Water Board staff of change in ownership of the Project or Permittee-responsible mitigation area.
When to Submit	At least 10 working days prior to the transfer of ownership.
Report Contents	<ol style="list-style-type: none"> 1. A statement that the Permittee has provided the purchaser with a copy of this Order and that the purchaser understands and accepts: <ol style="list-style-type: none"> a. the Order's requirements and the obligation to implement them or be subject to administrative and/or civil liability for failure to do so; and b. responsibility for compliance with any long-term BMP² maintenance plan requirements in this Order. 2. A statement that the Permittee has informed the purchaser to submit a written request to the Los Angeles Water Board to be named as the permittee in a revised order.

Report Type	Transfer of Long-Term BMP Maintenance Report
Report Purpose	Notifies Los Angeles Water Board staff of transfer of long-term BMP maintenance responsibility.
When to Submit	At least 10 working days prior to the transfer of BMP maintenance responsibility.
Report Contents	A copy of the legal document transferring maintenance responsibility of post-construction BMPs.

² Best Management Practices (BMPs) is a term used to describe a type of water pollution or environmental control.