



STATE OF WASHINGTON  
**DEPARTMENT OF ECOLOGY**

Southwest Region Office

PO Box 47775, Olympia, WA 98504-7775 • 360-407-6300

April 9, 2024

Todd Pelman  
Chief Engineer  
950 Commercial Street  
San Carlos, CA 94070

Re: Approval of Engineering Report, Ebb Carbon Project Macoma

Dear Todd Pelman:

The Department of Ecology (Ecology) received an engineering report from Ebb Carbon, Project Macoma LLC (Project Macoma), titled "Engineering Report, Ebb Carbon Project Macoma", on February 1, 2024. Project Macoma is proposing to start a research project and construct a marine carbon dioxide removal (mCDR) system at Terminal 7 of the Port of Port Angeles in Port Angeles, Washington. The proposed facility will consist of a pilot-scale version of the mCDR system currently operating at the United States Department of Energy's Pacific Northwest National Laboratory (PNNL) in Sequim, Washington.

The pilot-scale system would use electrochemical processes to remove acid from the ambient seawater of Port Angeles Harbor. The produced alkaline seawater that remains would be returned to the ocean where it can absorb carbon dioxide (CO<sub>2</sub>) from the atmosphere and store it as bicarbonate. Aziz Mahar, P.E., a registered professional engineer at Ecology's Southwest Regional Office, reviewed this engineering report and provided comments on March 12, 2024. Project Macoma addressed Ecology's comments and resubmitted the engineering report on March 26, 2024.

Aziz Mahar, P.E., has completed a review of the engineering report. In accordance with RCW 90.48.110 and Chapter 173-240 WAC, the engineering report is hereby **APPROVED**.

This office is to be notified immediately of any proposed changes or revisions to the approved document. Any such changes or revisions must be issued in the form of addenda, technical appendices, or supplemental reports to the original approved documents and must be approved in writing by the Department of Ecology.

The Department of Ecology's review and approval of this document is to assure compliance and consistency with the appropriate rules, regulations, guidelines, planning and design criteria, and/or other similar documents.

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The Department of Ecology's review shall not be construed as a quality control check or as approval with respect to the completeness, accuracy, or adequacy of this document.

This approval **does not** relieve the owner(s) of the proposed facilities from any other approvals as may be required by other governmental reviewing agencies. In addition, this approval **does not relieve** the owner or the owner's engineer from the responsibilities and liabilities that result from noncompliance with water pollution laws and regulations during the design, construction, or operation of the proposed facilities. Also, this approval **does not** relieve the owner or the owner's engineer from the responsibilities for the technical adequacy and/or accuracy of the contents of this document.

If you have any questions or need any additional information, please don't hesitate to contact Aziz Mahar, P.E. by email at [aziz.mahar@ecy.wa.gov](mailto:aziz.mahar@ecy.wa.gov), or by phone at (564) 233-9562 (cell).

Sincerely,



Andrew Kolosseus  
Southwest Region Section Manager  
Water Quality Program

cc: Todd Pelman, Ebb Carbon, Project Macoma  
John Diamant, P.E., Ecology