

**BACKGROUND INFORMATION
AND
CONFIDENTIAL CONFLICT OF INTEREST DISCLOSURE**
For Ocean Alkalinity Enhancement Best Practices Guide

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PREAMBLE

It is essential that the development of the Best Practices Guide for Ocean Alkalinity Enhancement Research is not compromised by any significant conflict of interest. For this purpose, **the term "conflict of interest" means any financial or other interest which conflicts with the service of the individual because it (1) could significantly impair the individual's objectivity or (2) could create an unfair competitive advantage for any person or organization.** Except for those situations in which a conflict of interest is unavoidable and that conflict of interest promptly and publicly disclosed, no individual can serve as author of the guide if the individual has a conflict of interest that is relevant to the functions to be performed. The term "conflict of interest" means something more than individual bias. There must be an *interest*, ordinarily financial, that could be directly affected by the work on the document.

By filling in and signing this Conflict of Interest Disclosure document, we will ensure that all information provided in the Best Practices Guide is unbiased and follows best scientific practices.

INSTRUCTIONS

Please provide the information requested below regarding **relevant** organizational affiliations, government service, public statements and positions, research support, and additional information (if any). Information is "relevant" if it is related to -- and might reasonably be of interest to others concerning -- your knowledge, experience, and personal perspectives regarding Ocean Alkalinity Enhancement and your contribution to the Ocean Alkalinity Enhancement Research Best Practices Guide.

I. ORGANIZATIONAL AFFILIATIONS. Report your relevant business relationships (as an employee, owner, officer, director, consultant, etc.) and your relevant remunerated or volunteer non-business relationships (e.g., professional organizations, trade associations, public interest or civic groups, etc.).

II. GOVERNMENT SERVICE. Report your relevant service (full-time or part-time) with federal, state, or local government (including elected or appointed positions, employment, advisory board memberships, military service, etc.).

III. RESEARCH SUPPORT. Report relevant information regarding both public and private sources of research support (other than your present employer), including sources of funding, equipment, facilities, etc.

IV. PUBLIC STATEMENTS AND POSITIONS. Provide a brief description of relevant positions of any organizations or groups with which you are closely identified or associated.

V. ADDITIONAL INFORMATION. If there are relevant aspects of your background or present circumstances not addressed above that might reasonably be construed by others as affecting your judgment in matters within the assigned task of the committee or panel on which you have been invited to serve, and therefore might constitute an actual or potential source of bias, please describe them briefly.

VI. FINANCIAL INTERESTS. (a) Taking into account stocks, bonds, and other financial instruments and investments including partnerships (but excluding broadly diversified mutual funds and any investment or financial interests valued at less than \$10,000), do you or, to the best of your knowledge others with whom you have substantial common financial interests, have financial investments that could be affected, either directly or by a direct effect on the business enterprise or activities underlying the investments, by the best practices guide?

(b) Taking into account real estate and other tangible property interests, as well as intellectual property (patents, copyrights, etc.) interests, do you or, to the best of your knowledge others with whom you have substantial common financial interests, have property interests that could be directly affected by the best practices guide?

(c) Could your employment or self-employment (or the employment or self-employment of your spouse), or the financial interests of your employer or clients (or the financial interests of your spouse's employer or clients) be directly affected by the best practices guide?

(d) Taking into account research funding and other research support (e.g., equipment, facilities, industry partnerships, research assistants and other research personnel, etc.), could your current research funding and support (or that of your close research colleagues and collaborators) be directly affected by the best practices guide?

(e) Could your service on the author committee of the best practices guide create a specific financial or commercial competitive advantage for you or others with whom you have substantial common financial interests?

If the answer to all of the above questions under FINANCIAL INTERESTS is either "no" or "not applicable," check here _____ (NO).

If the answer to any of the above questions under FINANCIAL INTERESTS is "yes," check here X (YES), and briefly describe the circumstances below.

Explanation of circumstances: I tick yes because of point (a) in VI Financial Interests. I am advising an US-based start-up called "Submarine" founded by Mowgli Holmes. Submarine describes themselves as: "Submarine is a benefit corporation building the computational climate models it will take to make carbon drawdown possible and safe." In other words, they work on tools for so-called monitoring, reporting, and verification (MRV) for atmospheric CO₂ removal with different marine CO₂ removal methods. This includes (but is not restricted to) OAE.

I have had interesting conversations with Mowgli and also Matt Long (NCAR) about the science behind Submarine for quite some time. At some point, Mowgli Holmes asked me if I could join an advisory team to help identify biogeochemical processes that affect MRV. I find this an interesting project and therefore agreed to join. My personal benefit is that I receive an option to purchase (I believe at a very low price) 0.25% of the shares should Submarine ever go to the stock market. This is currently not >10,000\$ (it currently has zero value for me, other than interesting conversations and a good learning experience how start-ups operate) but wanted to disclose it here just in case. The document I signed to become an Advisor for them explicitly says that I will not hold back on publishing/publicly saying (or in any other way disseminating) things that I believe are important to consider for MRV or marine CDR in general, even if they are against Submarines interests. And I believe I have made this abundantly clear in my publications, conversations on e.g. twitter, or presentations on mCDR. I am happy to share this document if needed.

I can check "no" for all the other points raised in the financial interests section (b-e).

Date & signature

21.12.2022

