

Ocean Visions to Develop Environmental Impact Assessment Framework for mCDR Research

Framework to guide responsible research and development of marine carbon dioxide removal approaches

WASHINGTON, DC, UNITED STATES, May 29, 2025 /EINPresswire.com/ --Today Ocean Visions announced that it is spearheading the development of a comprehensive Environmental Impact Assessment Framework (EIAF) for marine carbon dioxide removal (mCDR). The initiative will create a tool for systematic evaluation of the potential environmental impacts of mCDR projects.



Ocean Visions is developing an environmental impact assessment framework for marine carbon dioxide removal research.

As the world confronts the urgent challenge of climate change, the Intergovernmental Panel on Climate Change (IPCC) has made clear that large-scale carbon dioxide removal (CDR) is required

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The assessment framework is another critical step in the maturation of the mCDR field, which is working hard to find responsible approaches to address climate disruption and clean up carbon pollution." *Ocean Visions CEO Brad Ack* for meeting climate targets. Among the wide range of possible CDR approaches, mCDR has significant potential as an ocean-climate solution; the ocean already holds more carbon than any other part of the Earth's living system and its sheer size means that any mCDR approaches effective at removing carbon dioxide and ecologically safe have great potential to be scaled.

While there has been rapid growth in the understanding of mCDR, fundamental questions about efficacy and impacts remain. Answering these unresolved questions requires multi-scale, controlled ocean testing, which in turn requires

comprehensive data and standardized methods for assessing the potential environmental impacts of mCDR. Together, these will support informed decision-making by project developers,

researchers, regulators, and local communities considering whether they can safely host an mCDR project.

Ocean Visions, a science-based nonprofit conservation organization, is taking a leadership role in addressing this need by fielding an expert team to



Ocean Visions is advancing solutions for oceanclimate restoration

create a comprehensive mCDR EIAF to serve as a standardized tool for evaluating the risks and environmental interactions of mCDR projects. Application of the tool will provide the scientific data needed to inform policy and permitting of research in the first instance, and ultimately scaled deployment, by helping society make informed decisions about mCDR projects before they ever touch the water.

"Marine carbon dioxide removal has the potential to become a powerful tool in the fight to stop climate change—but first it must be able to pass the dual tests of safety and effectiveness," said Brad Ack, CEO of Ocean Visions. "This framework will provide a comprehensive structure for evaluating the environmental safety of all mCDR technologies, which in turn will provide decision-makers and interested parties the evidence base needed to make decisions about the ultimate use of the approaches."

Ocean Visions selected an interdisciplinary team to develop <u>the EIAF</u> after conducting a rigorous and highly competitive international application process. The team will be led by Fugro, in collaboration with teams from Integral Consulting and the National Oceanography Centre. The team will work in two phases over 24 months, first to develop and refine the framework, and secondly to test and improve it. The framework will ensure an environmental assessment process that:

- Identifies and then minimizes potential negative impacts on marine ecosystems and the communities that rely on the health of those ecosystems

- Facilitates public consultation and dialogue
- Creates compliance structures for mCDR proposals 🛛

The final product will be an openly accessible, comprehensive, implementable EIAF that can be applied in a standardized way to projects representing a range of mCDR approaches, including ocean alkalinity enhancement, growing macroalgae and microalgae, direct ocean capture, and more. Ocean Visions will publish the final product in summer 2027.

"This <u>assessment framework</u> is another critical step in the maturation of the mCDR field, which is working hard to find responsible approaches to address climate disruption and clean up carbon pollution," said Ack. "It reflects the commitment of a growing community to ensure that mCDR research and development and potential deployment is held to high environmental standards and guided by the best available science."

DABOUT OCEAN VISIONS

Ocean Visions was created to develop and advance solutions to protect and restore the ocean. We focus on the biggest driver of dangerous change – the climate disruption that is increasing ocean temperatures and levels of acidification. We mobilize a diverse network of collaborators and leverage cutting-edge science and innovative technologies to build ocean-based solutions that reduce climate stressors and restore ocean ecosystems. In short, we work to stabilize the climate and regenerate ocean health.

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