

## **Listening, Learning, and Looking Ahead: Reflections from the Alaska Forum on Marine Carbon Dioxide Removal**

On February 5, 2026, members of the Community Leaders and Marine Carbon Dioxide Removal (CLaM) team participated in a session at the Alaska Forum titled *Community Leaders and Marine Carbon Dioxide Removal: Building Capacity for Informed Community Engagement*. Our goal was to introduce the emerging field of marine carbon dioxide removal (mCDR), share what is currently known, and most importantly, listen to how Alaskans are thinking about this topic.

Because Alaska has been identified as a potential location for future mCDR research, conversations about this work are no longer hypothetical. This presentation followed two focused community workshops in Cordova and Kodiak in order to bring this topic to a wider audience whose interests and professions would likely intersect with mCDR. The Alaska Forum therefore provided a valuable opportunity to bring together scientists, community leaders, industry representatives, and policymakers to start that dialogue in a shared space.

### **Building a Foundation for Understanding**

During the session, presenters from the CLaM partnership provided an overview of the major approaches to mCDR and discussed how community engagement can shape responsible decision-making as technologies develop. One lesson we took away immediately was the challenge of communicating this complex science within a limited timeframe. The session reinforced the importance of pacing information carefully and creating space for questions but also showed the need for materials and resources that can help community members gain knowledge about these techniques and practices in an accessible way. Part of CLaM's goal will continue to be to provide a baseline understanding of these technologies within Alaska communities through resources, outreach, and focused trainings.

### **A Curious and Thoughtful Conversation**

Participants were engaged, curious, and willing to consider new ideas, but they also approached the topic with healthy skepticism. Rather than reacting emotionally, most attendees focused on practical questions about implementation, accountability, and real-world impacts, with many speaking from personal experience about other research and development projects in their home regions.

A recurring theme throughout the discussion was the desire to connect mCDR to existing systems rather than treating it as an entirely new challenge. Participants asked how these technologies might fit into familiar regulatory frameworks, monitoring programs, and research efforts already underway in Alaska. This perspective reflects a strong preference for building on established knowledge and governance structures rather than starting from scratch.

### **What We Heard: Questions and Concerns**

Across both the main session and breakout discussions, several consistent themes emerged.

- **Environmental understanding**

Participants emphasized the need for a comprehensive baseline understanding of ecosystems before any intervention is considered. Many questions focused on how changes to ocean chemistry, oxygen levels, or nutrient dynamics might affect marine species and food webs. Others highlighted the importance of understanding water circulation, migration pathways, and cumulative impacts across regions.

- **Trust depends on credible monitoring and verification**

A particularly strong point of discussion was the challenge of proving that carbon is actually removed and stored in the ocean. Participants noted that reliable monitoring, reporting, and verification systems will be essential for maintaining public confidence in any future projects.

- **Governance clarity is essential**

Attendees wanted to know who would oversee mCDR activities, how decisions would be coordinated across jurisdictions, and what processes would guide project approval. Many referenced familiar frameworks such as environmental impact assessments and fisheries management systems as potential models. At the same time, they acknowledged that these processes can place significant demands on local capacity, especially in smaller communities.

- **Economic questions remain unresolved**

Participants asked practical questions about costs, benefits, and accountability. Who stands to benefit financially from mCDR projects? How might local communities share in those benefits? And if something goes wrong, who is responsible for addressing the impacts?

- **Engagement must be inclusive**

Another clear message was that conversations about mCDR should extend beyond individual coastal communities and include diverse geographies. Participants noted that ocean systems are interconnected and that decisions made in one region can affect fisheries, ecosystems, and economies across the state. For Alaska this interconnectedness is often framed around salmon, as their lifecycle requires the health and stability of both ocean and inland systems. During these discussions, participants emphasized the importance of involving Tribal governments, industry groups, regional organizations, and interior communities in future discussions.

## **Openness to Innovation with Conditions**

Similar to the outcomes of previous focused coastal community workshops, this session showed many participants expressed openness to exploring new approaches to climate mitigation with caution. Several attendees noted that addressing climate change will require creativity and experimentation. However, this openness was consistently paired with a call for caution, transparency, and local oversight. Participants showed particular interest in the idea of smaller, community-scale research efforts that allow for learning and adaptation over time. These approaches were seen as more manageable and more consistent with local governance and monitoring capacity than large, centralized projects.

## **What We Still Need to Learn**

The Alaska Forum discussion made it clear that the conversation about mCDR is just beginning. While awareness is growing, many technical, social, and governance questions remain unanswered.

Future questions and efforts we can engage in might include:

- Expanding baseline ecosystem data and monitoring systems
- Clarifying regulatory pathways and decision-making roles
- Developing transparent approaches to cost-benefit analysis
- Understanding social and cultural impacts on communities
- Building local capacity to participate in research and oversight

These are not questions that can be resolved in a single meeting. They will require sustained dialogue, collaboration, and learning over time.

## **Moving Forward Together**

The CLaM team left the Alaska Forum with a deeper appreciation for the knowledge, experience, and perspective that Alaska communities bring to discussions about emerging technologies. Community engagement is not a one-time activity. It is an ongoing process of listening, sharing information, and adapting as new information becomes available. As research on marine carbon dioxide removal continues, we hope our role can be to help ensure that communities have the tools and information they need to participate meaningfully in decisions that affect their waters and livelihoods.

We are grateful to everyone who contributed their time and insight during the session. Your questions and perspectives are shaping how this work moves forward.