

On July 5, 2023 the Ocean Acidification Task Force (OATF) published the Draft report titled Ocean Acidification: Its Causes, Impacts, and Mitigation; A Report to the New York State Legislature for a 65-day public comment period, which closed on September 7, 2023 at 11:59 pm. The OATF received 7 comments, which are summarized below, along with the OATF's responses.

On behalf of the Ocean Acidification Task Force, we are grateful for all the well-considered and in-depth comments provided. A summary of revisions leading to the final report follow:

**Comment 1 : Maureen Dunn (Seatuck Environmental)**

**Summary of Comment:**

Commenter states their support of the draft report and highlights the importance of mollusk shell recycling and maintaining barrier inlet openings as two especially important mitigation measures recommended in the draft report. Commenter also urges New York State Legislature to support funding to move these recommendations into actions.

**OATF Reply:**

OATF agrees that shell recycling and maintaining barrier island inlets should be considered as valid OA mitigation strategies when tackling OA in New York's waters. Text was added to recommendation I-5 (Support and broaden mollusk-shell recycling programs) to include the role of shell recycling programs to help mitigate OA. OATF also calls for the New York State Legislature to support funding to move these recommendations into action throughout the report.

**Comment 2: Alison Chase, Adrienne Esposito, Merry Camhi, PhD, Robert DiGiovanni Jr. , and Patrick McClellan (New York Ocean and Great Lakes Coalition)**

**Summary of Comment:**

Commenters congratulate the OATF and NYS DEC for producing the draft report and provides 8 discrete comments regarding different components of the Draft Report.

1. Commenters urge New York to continue prioritizing reduction of excessive nitrogen in NY waters and the OATF to support sustained funding for nitrogen reduction programs, including allocating remaining septic replacement program funding to high priority areas such as Suffolk and Nassau County. Commenters also urge OATF to support mandatory regulations on fertilizer use to limit nitrogen contamination in Long Island's waters.
2. Commenters support the blue carbon sequestration recommendation in the draft report and urge the state to prioritize funding of such initiatives.

3. Commenters strongly support the Draft Report's recommendation to invest in monitoring New York's nearshore and estuarine waters. They note that the South Shore Estuary Reserve had submitted detailed comments for monitoring with the SSER to OATF prior to the publication of the draft report and recommend the proposed sites be included with in the Final Report.
4. Commenters request OATF include a recommendation to form an advisory committee to coordinate ocean acidification research and monitoring.
5. Commenters request that OATF incorporate a recommendation to have NYS DEC host a biennial Ocean Acidification Workshop/Conference to bring stakeholders together to discuss next steps regarding OA.
6. Commenters request removal of the mitigation recommendation to introduce alkaline materials into the marine environment to buffer Ocean Acidification.
7. Commenters recommend OATF ensures the Final Report highlights the risk posed by artificial ocean alkalization and highlights the need for comprehensive research in this area before large-scale implementation measures are carried out. Commenters request that OATF support studies into the potential adverse effects of artificial ocean alkalization in addition to studies on the efficacy of these techniques.
8. Commenters request OATF amend language in V-7 of the Draft Report (*Create an expedited permitting process for aquaculture operations*) to ensure all permitting processes for aquaculture include robust environmental review and careful siting.

Lastly the Commenters request that OATF clearly identify which agencies and entities have the authority and responsibility to act for all of the recommendations in an effort to ensure accountability moving forward.

**OATF Reply:**

OATF agrees that New York needs to continue prioritizing excess nitrogen reduction and that funding is necessary to do this. The Report acknowledges the need for financial assistance regarding the new innovative alternative septic system and notes New York State's Septic System Replacement Fund Program, which provides funding to counties to help homeowners upgrade their septic systems. Section V-5 ( Embrace Suffolk and Nassau county's Subwatershed Wastewater Management Plan) has been amended to more explicitly recommend that State and local governments take advantage of all available funding sources to continue to provide financial support to homeowners upgrading their septic systems. The Report also supports implementation of the recommendations provided by the LINAP Fertilizer Management Workgroup and OATF would support relevant and reasonable mandates, although it is unclear whether legislative mandates are required without first having recommendations in place to measure their effect. Text for recommendation V-13 (Reduce Fertilizer Use) was revised accordingly.

Blue carbon sequestration is listed as a substantiated OA mitigation method within the Report. Mitigation recommendations are categorized based on their proven status as a viable OA mitigation method (from conceptual to potential to substantiated). Priority levels were not assigned due to the highly variable nature of coastal habitats, which makes some mitigation methods more or less suitable based on the target site. Text was added to I-4 (Enhance blue carbon sequestration using seagrasses, kelp beds and marshes) to emphasize the need for the support of programs that would help mitigate OA via blue carbon sequestration. OATF appreciates the commenters' support of recommendation III-2 (Invest in monitoring New York's near shore and estuarine waters). The SSER, in particular, is listed here

among the estuary programs that should assist with additional monitoring, coordination and management of monitoring efforts. While SSER's suggestions for monitoring locations were well thought out and should be considered by the State as it invests in near-shore monitoring, they are beyond the scope of this report. The text has been revised, however, to indicate potential areas to target for such monitoring. As suggested, the Report was amended to include a recommendation for the creation of an OA advisory committee in recommendation V-11 (Create an OA advisory committee out of the Governor's Office to help implement the OA plan), which would be charged with overseeing, advising, and promoting adherence to the report's recommendations, including OA research efforts. As suggested, standardized monitoring and QA/QC procedures are critical and explicitly stated in Section III-2 (Invest in monitoring New York's near shore and estuarine waters). The recommendation for a biennial OA workshop/conference has been added into Pillar V (Develop a legislative action plan).

In consideration of comments from these and other commenters, OATF decided to remove Recommendation I-8 : Introduce highly alkaline material into the marine environment. OATF agrees that the use of highly alkaline materials for marine buffering is merely conceptual and determined it should be kept within the realm of research at this stage.

Recommendation III-7 (Study the chemistry of mitigation measures such as artificial ocean alkalization of coastal waters) refers to the use of both natural sources of alkaline materials, such as recycled shells, as well as more industrialized sources. OATF determined this type of mitigation deserves further investigation and the text has been updated to indicate that studies should not only look at potential buffering capacity, but also for any negative effects based on the source of the alkaline materials.

OATF agrees that robust environmental review is necessary, whether or not the process is expedited and the text was amended to reflect this stance. Finally, the Report's recommendations are aimed at the appropriate actions, rather than at designating which office within NYS would be best suited to carrying out those recommendations. In this instance, the Report recognizes the ability of the State to determine the appropriate offices.

### **Commenter 3: Carl LoBue, The Nature Conservancy**

#### **Summary of Comment:**

Commenter suggests reordering the pillars so legislate is the first pillar and recommends explicitly naming the agencies/entities that should be charged with handling the recommendations throughout the report. Commenter also requests OATF prioritize the recommendations within and across the five pillars to ensure a balanced approach for combatting OA.

#### **OATF Reply:**

The recommendations in the Report were aimed at suggesting the appropriate actions, rather than at designating which office within NYS would be best suited to carrying out those recommendations. In this instance, the Report recognizes the ability of the State to determine the appropriate offices at the same time highlighting the need for partnerships and collaboration in the introduction and throughout the report where appropriate. While these partnerships are crucial, we chose to minimize references to specific NGOs to avoid unintended bias.

The pillars have not been ordered in terms of importance and were not re-ordered at this stage. Legislative actions are critical for the success of any ocean acidification action plan but should not be viewed in isolation and should include consideration of the tools provided in the other four pillars of the report. A subsequent OA action plan will engage in recommendations from all of the pillars and will look to find an appropriate balance given the unique financial, social, and environmental limitations and factors in each area. Despite geographic proximity, there are a multitude of unique considerations for distinct locations that will find different strategies to be more or less useful. A one-size-fits-all approach will not be most efficient given our local waters.

#### **Comment 4 Ben Rubin and Isabella Corpora (Carbon Business Council)**

##### **Summary of Comment:**

Commenters applauds the inclusion of marine carbon dioxide removal (mCDR) within the recommendations of the Draft Report and requests that the OATF include the following in their recommendations in the final report: creation of an mCDR task force to bring together relevant stakeholders to responsibly implement larger scale mCDR projects, increased investment in mCDR research and monitoring systems and pilot projects, assessment of opportunities to incorporate mCDR into offshore wind projects, and development of a permitting regime for mCDR in NY waters.

##### **OATF Reply:**

Development of a permitting regime for marine carbon dioxide removal (mCDR) which would facilitate field trials has been included in recommendation V-7 (Create an expedited permitting process for aquaculture operations) along with aquaculture permitting.

The creation of an OA Advisory Committee has been added as V-11 (Create an OA advisory committee out of the Governor's Office to help implement the OA plan), which would include mCDR efforts within its scope. Section V-14 (Host a Biennial Ocean Acidification Conference) was also added based on these and other comments to act as a meeting place for discussion of OA topics including mCDR. The Final Report recommends funding of a variety of mCDR research, and monitoring within the various mitigation and research recommendations, including, but not limited to, recommendations I-4, I-6, III-6, and IV-1. The Report encourages taking advantage of opportunities for incorporating mCDR into other projects, which would include offshore wind farms.

#### **Comment 5 Guy Jacob (South Shore Audubon Society)**

##### **Summary of Comment:**

Commenter requests OATF include a recommendation to investigate how neonicotinoids are impacting local waters and their compounding impacts with OA. Commenter also urges OATF to include stronger and clearer statements regarding Transfer-of-Development-Rights techniques and hardening shorelines to directly link them to OA. Commenter requests OATF remove recommendation I-8 (introduce highly alkaline materials into the marine environment) and remove references to utilizing post-consumer

recycled glass in recommendation I-10 (fill in dredged hypoxic holes). Commenter urges OATF to include a recommendation to incentivize terrestrial rewilding to help lower pH in coastal waters by reducing nitrogen runoff.

**OATF Reply:**

As recommended, the text for section I-4 (Enhance blue carbon sequestration using seagrasses, kelp beds and marshes) was amended to incorporate transfer-of-development rights and based on feedback from the public comments and discussion among the task force, recommendation I-8 (Introduce highly alkaline material into the marine environment) was removed from the report.

Although water quality and ecosystem health will undoubtedly play a role in the relative success of many of the recommendations throughout the report, specific use of neonicotinoids was considered to be outside the scope of this report.

Recommendation V-13 (Reducing fertilizer use) strongly supports local actions to reduce fertilizer use, but specific legislation for rewilding was considered hyper-local jurisdiction and also would largely be outside of the scope of this report, as specific recommendations on waste management and pesticide use as a whole are outside the scope of this report, though the report does attempt to approach OA from a holistic perspective. The argument to remove recommendation I-10 is based on the idea that NYS should be zero-waste and all glass should be recycled. While these are both aspirational goals, the reality is that NYS (especially Long Island) has not been able to find a consistent market for the post-consumer glass that they are legally required to collect for recycling. We believe that Recommendation I-10 (Fill in dredged hypoxic holes) would not inhibit future markets for glass recycling and would find a beneficial reuse for a historically market-less material that is legally required to be collected through recycling.

**Comment 6 – Steven A. Ludsin, East Hampton, NY**

**Summary of Comment:**

Commenter expresses their disappointment in Suffolk County's vote against the Water Quality Restoration Act. Commenter urges OATF to support funding for septic improvement and protect our water.

**OATF Reply:**

Based on comments provided to OATF, V-5 (Embrace Suffolk and Nassau county's Subwatershed Wastewater Management Plan) has been amended to more explicitly encourage state and local governments take advantage of all available funding sources to continue to provide financial support to homeowners upgrading their septic systems. In addition, V-5 (Embrace Suffolk and Nassau counties' Subwatershed Wastewater Management Plans) and I-2 (Minimize discharges that contribute to coastal OA) now address the need for financial assistance regarding the new innovative alternative septic system and identifies New York State's Septic System Replacement Fund Program, which provides funding to counties to help homeowners upgrade their septic systems.

## **Comment 7 Jessie Turner, OA Alliance Executive Director**

### **Summary of Comment:**

Commenter suggests additional text be added to the report to provide the global context of OA within which this report is being drafted and New York will begin taking action. Commenter recommends OATF include text to highlight regional OA efforts that are ongoing which New York can connect with as part of this report and future actions. Commenter praises recommendations to develop a geospatial tool for prioritizing OA mitigation effort locations, establishing sentinel OA sites within New York, and creating an expedited permitting process for aquaculture operations. Commenter suggests reordering the recommendations within Pillar V: Legislate to more clearly emphasize the different scopes of impact each recommendation is aimed at achieving.

### **OATF Reply:**

Text was revised throughout the report to contextualize the report's recommendations within the broader network of ocean acidification mitigation and remediation efforts including groups like MACAN, MARACOOS, OA Alliance, MARCO, etc. and the larger international OA efforts. The recommendations in Pillar V (Develop a legislative action plan). were re-ordered as suggested to improve flow and cohesiveness.