



Hard Clam Fishery Management Plan

Amendment 3 Overview

DEPARTMENT OF ENVIRONMENTAL QUALITY
Marine Fisheries

Lorena de la Garza, Jeff Dobbs | Nov 21, 2024



Hard Clam Amendment 3 Timeline

• Division holds public scoping period

• Marine Fisheries Commission approve goal and objectives of FMP

• Division drafting FMP

• Division holds workshop to further develop draft FMP with plan advisory committee

• Division updating draft plan

You are here

• **Marine Fisheries Commission vote to send draft FMP for public and advisory committee review**

• Commission advisory committees meet to review draft FMP and receive public comment

• Marine Fisheries Commission select preferred management options

• Department of Environmental Quality Secretary and legislative review draft FMP

• Marine Fisheries Commission vote on final adoption of FMP

• Division and Marine Fisheries Commission implement management strategies



Outline

- Base Plan
 - Goal & Objectives
 - Fishery Characterization
- Overview of Issue Paper
 - Appendix 1: Clam Mechanical Harvest Issue
- Preliminary DMF Recommendations
- Action Item
 - Vote to send FMP for public and advisory committee review



Goal and Objectives

The goal of the N.C. Hard Clam FMP is to manage the hard clam resource to provide long-term harvest and continue to offer protection and ecological benefits to North Carolina's estuaries. To achieve this goal, it is recommended that the following objectives be met:



Goal and Objectives

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- Manage hard clam harvesting gear use to minimize damage to the habitat.
- Coordinate with DEQ and stakeholders to implement actions that protect habitat and environmental quality consistent with the Coastal Habitat Protection Plan (CHPP) recommendations.



Goal and Objectives

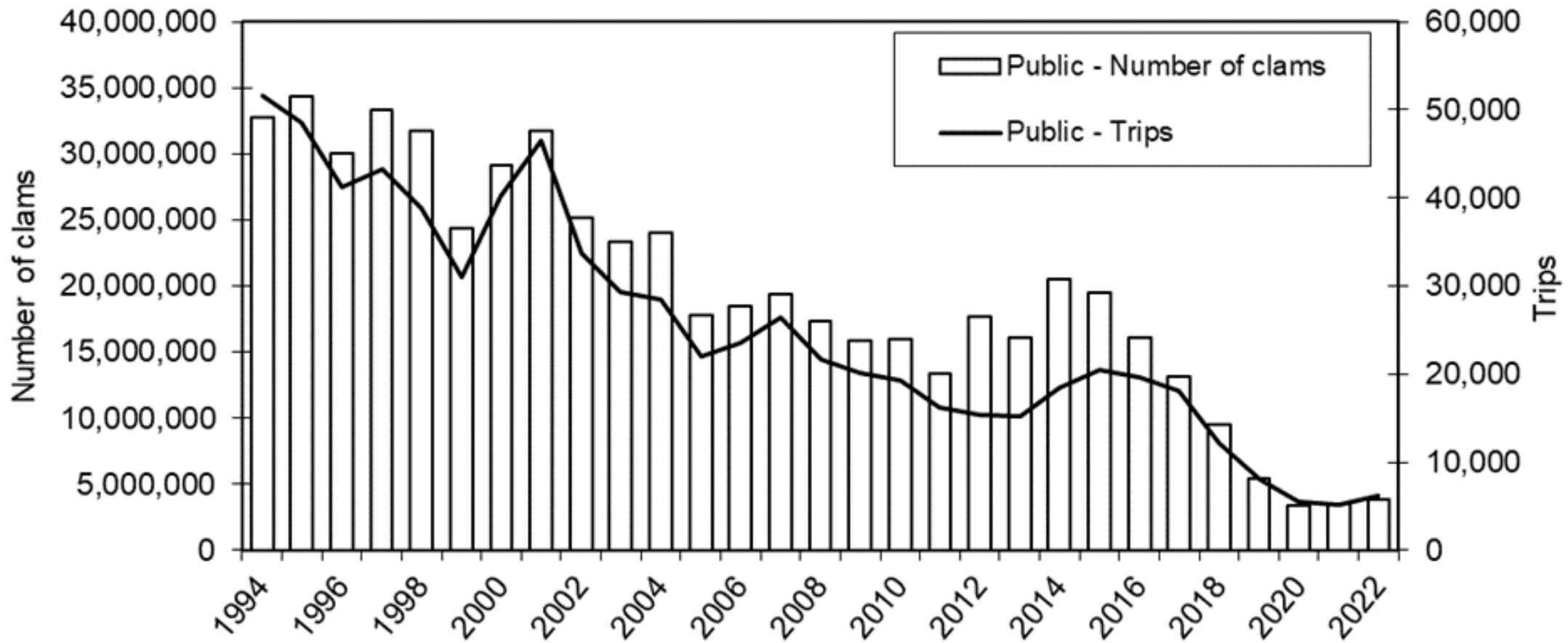
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- Manage hard clam harvesting gear use to minimize damage to the habitat.
- Coordinate with DEQ and stakeholders to implement actions that protect habitat and environmental quality consistent with the Coastal Habitat Protection Plan (CHPP) recommendations.
- Promote stewardship of the resource through public outreach to increase public awareness regarding the ecological value of hard clams and encourage stakeholder involvement in fishery management and habitat enhancement activities.



Hard Clam Fishery Overview

- The status of the hard clam stock in North Carolina is unknown due to the lack of appropriate data



Hard Clam Fishery Overview

Commercial fishery

- Min size 1-inch thickness (shell width)
- Daily limit from 3,750 to 6,250 hard clams depending on area and gear
 - Hand harvest open year round
 - Mechanical harvest Dec 1 – March 31 with rotational openings

Recreational Fishery

- Min size 1-inch thickness (shell width)
- 100 clams/Day, 200 clams/vessel/day
- Recreational harvest in North Carolina does not require a license
 - Total recreational landings cannot be estimated



Socioeconomic Impact

Year	Participants ¹	Trips ¹	Clams landed (in thousands) ¹	Estimated Economic Impacts			
				Ex-vessel value (in thousands) ¹	Jobs ^{2,3}	Income impacts (in thousands) ³	Sales impacts (in thousands) ³
2022	276	6,194	3,828	\$890	326	\$1,370	\$2,988
2021	268	5,140	3,557	\$789	313	\$1,399	\$2,996
2020	292	5,438	3,430	\$903	338	\$1,389	\$2,997
2019	311	8,151	5,428	\$1,110	365	\$1,793	\$4,119
2018	452	12,211	9,492	\$1,710	537	\$2,667	\$5,843
2017	544	18,189	13,156	\$2,349	647	\$3,490	\$7,920
2016	599	19,612	16,047	\$2,891	722	\$4,247	\$9,252
2015	627	20,413	19,529	\$5,850	885	\$8,400	\$18,830
2014	581	18,372	20,538	\$3,267	728	\$4,883	\$11,222
2013	491	15,241	16,061	\$2,611	606	\$4,124	\$8,767

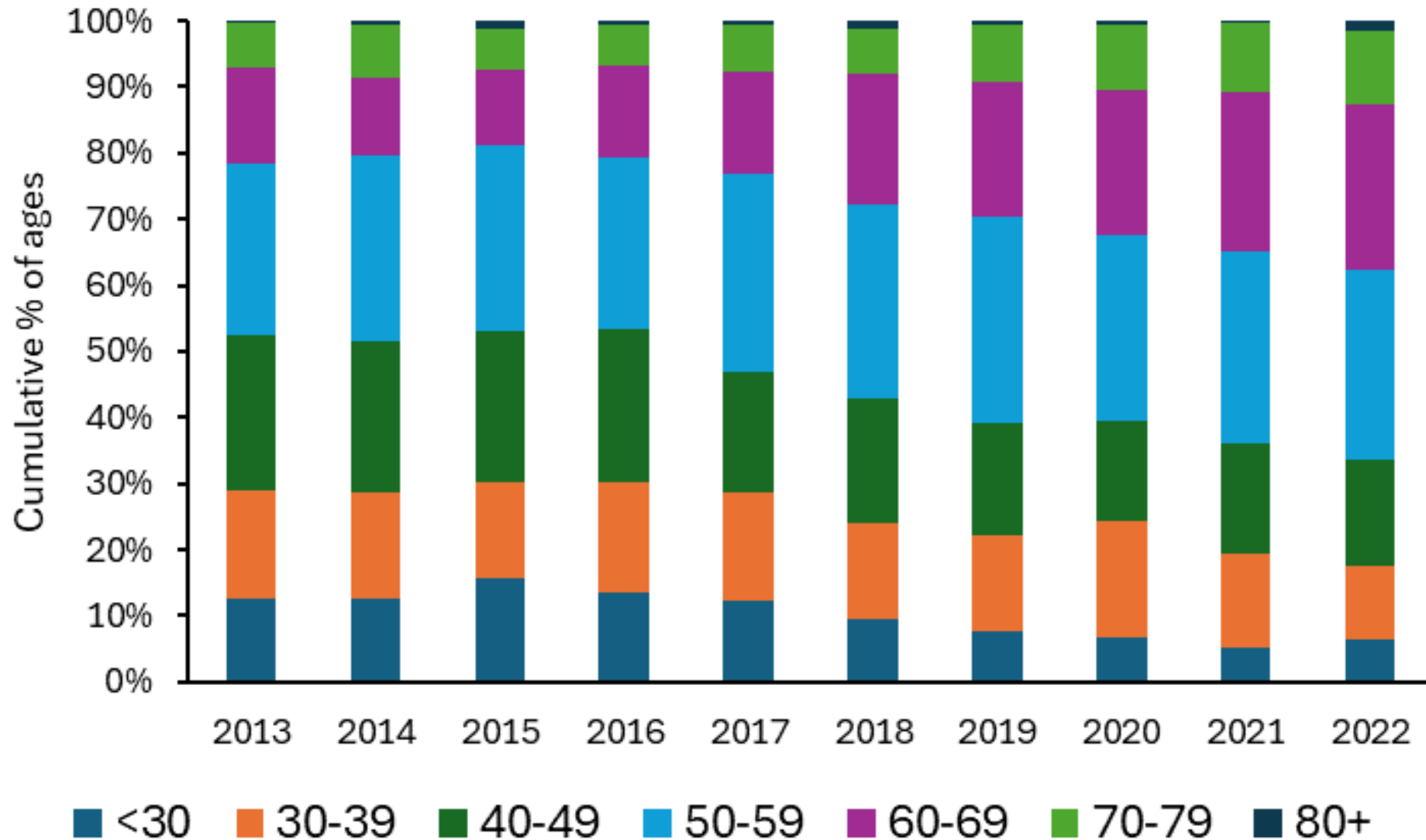
¹As reported by the NCDMF trip ticket program.

²Represents both full-time and part-time jobs.

³Economic impacts calculated using the NCDMF commercial fishing economic impact model and reported in 2022 dollars.



Socioeconomic Impact



Environmental Factors & Threats

- Physical threats
 - Bottom disturbing gear
- Water quality threats
 - Point and non-point sources
 - Hypoxia
 - Climate change
- Environmental pathogens
 - Vibrio
 - Green gill
 - Neurotoxic shellfish poisoning



[Interactive Shellfish Closure Map](#)



Appendix 1: Clam Mechanical Harvest Issue Paper



Appendix 1: Issue

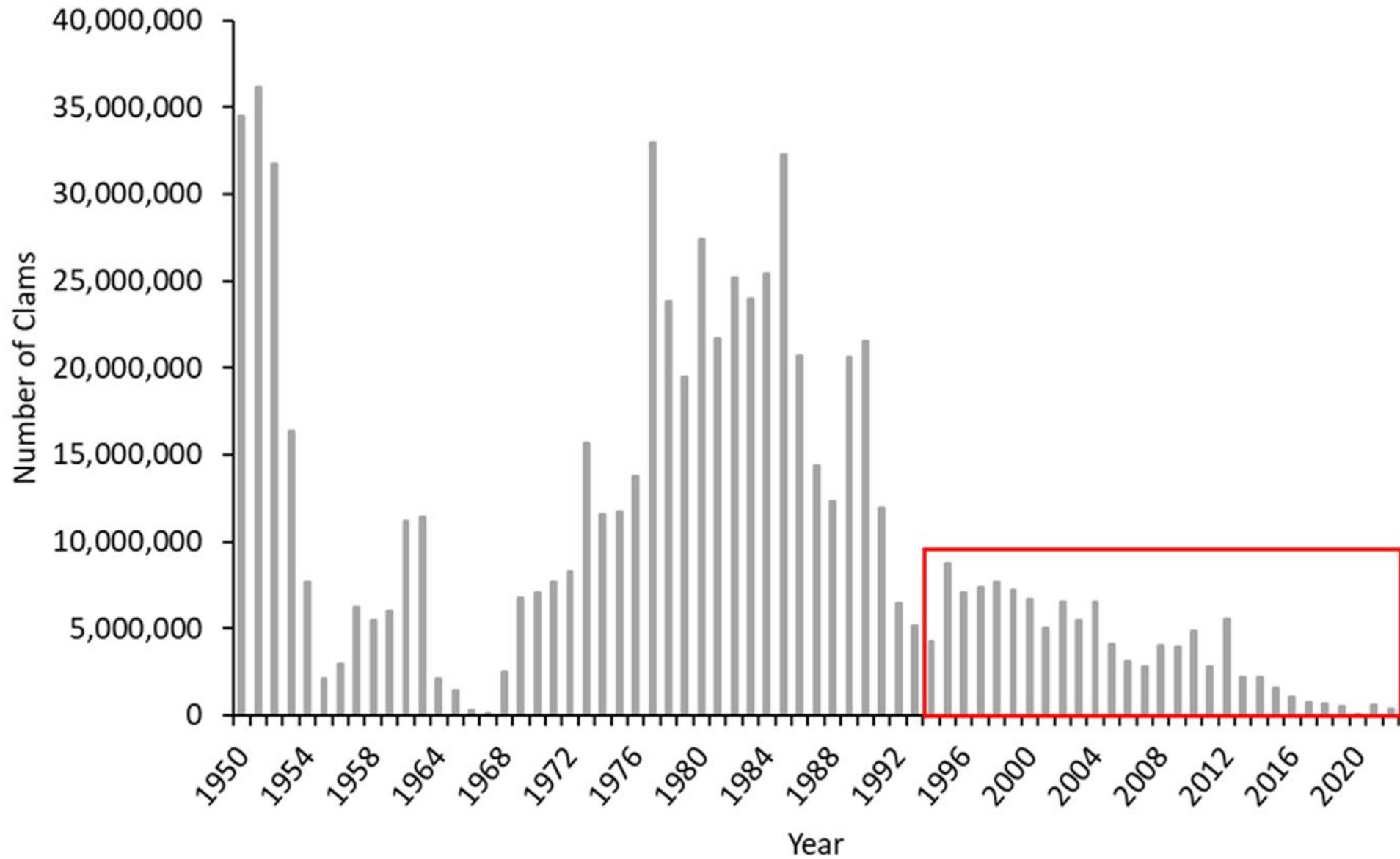
- Participants and trips have declined since the 1990s
 - The lowest levels on record
- Habitat concerns associated with bottom disturbing gears
- State resources
 - Maintenance
 - Monitoring



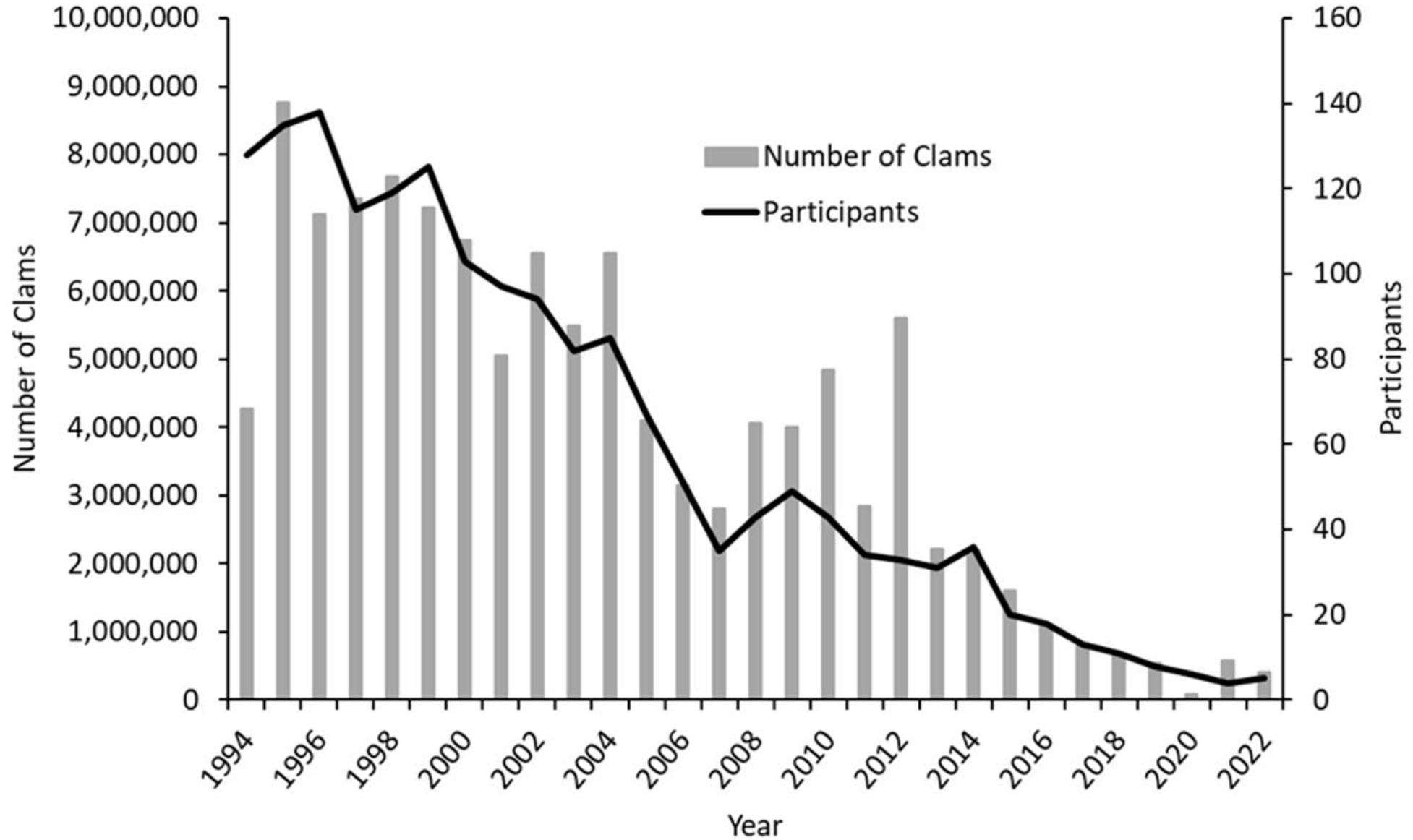
Appendix 1: Background



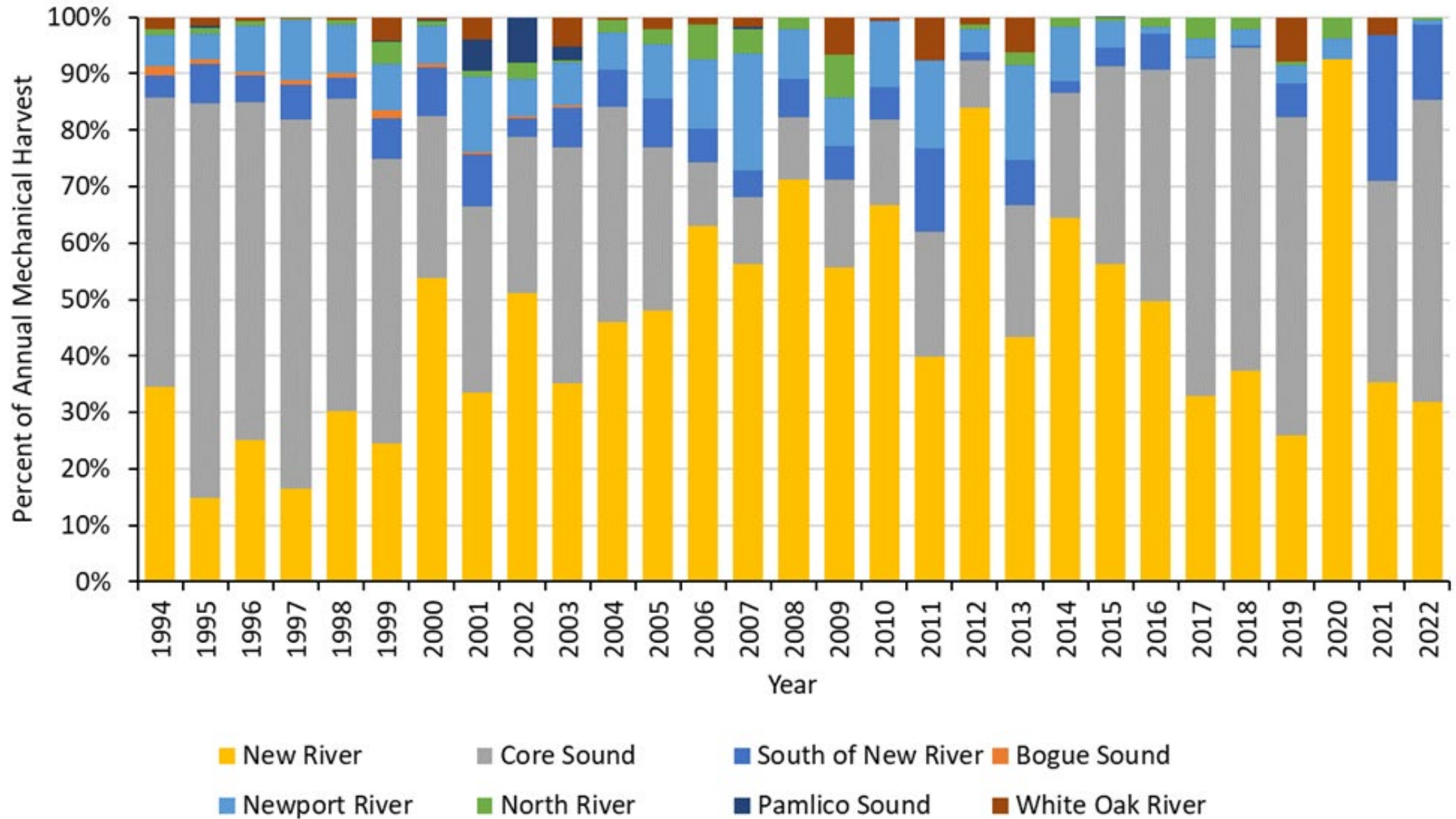
Appendix 1: Background



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Appendix 1: Background

- Enforcement and maintenance require a lot of state resources
 - Areas marked by division staff
 - Requires many Marine Patrol to monitor
 - Management areas can be large with boundary lines difficult to enforce
 - e.g. Core Sound



Appendix 1: Background

- Mechanical harvest is permitted by rule (15A NCAC 03K .0301 (b)) prior to maintenance dredging
- Allows fishermen to access a resource that would otherwise be destroyed
- Has not been utilized since 2007
- Requires collaboration between fishermen, division, and Army Corps of Engineers



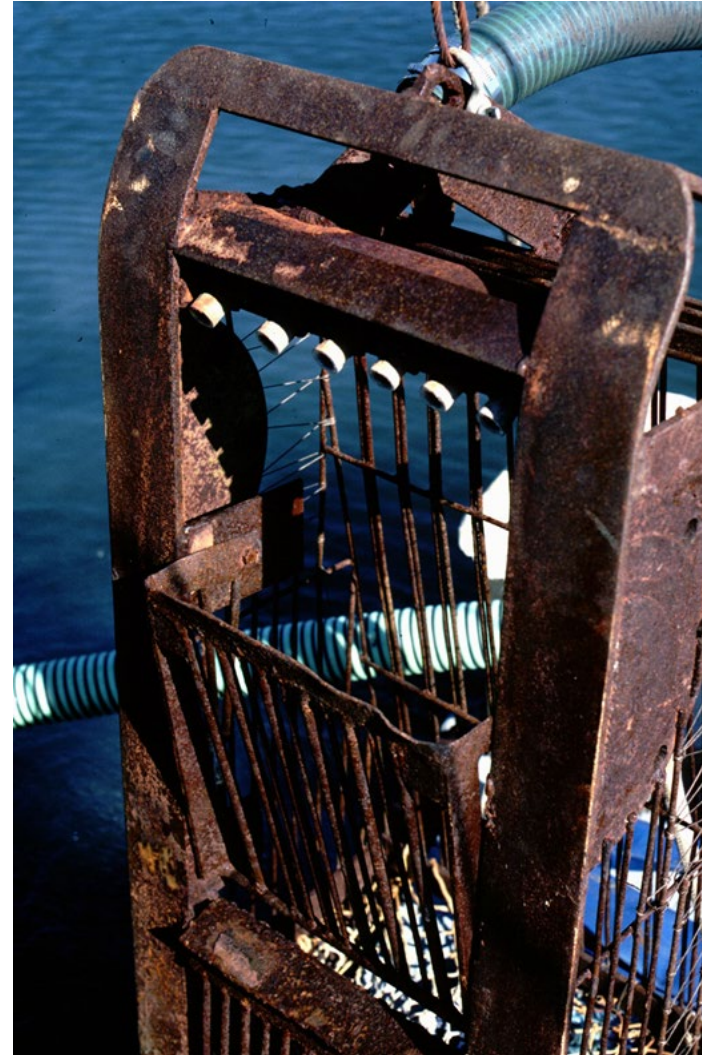
Appendix 1: Discussion



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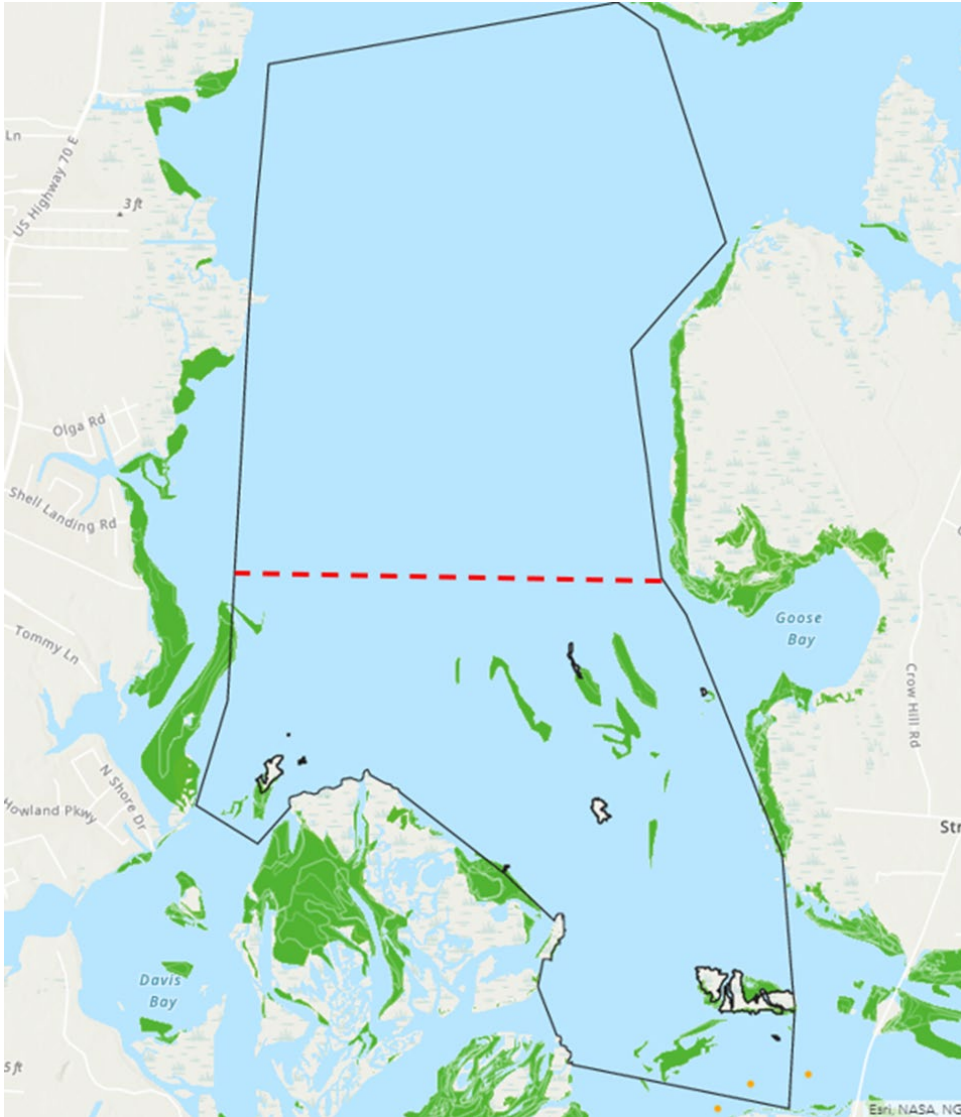
Habitat Concerns

- Research has shown that dredging and trawling is harmful to soft bottom habitat
- Mechanical clam harvesting is done with escalator dredges and clam trawls
- Mechanical harvest of clams is prohibited in SAV and oyster beds



Appendix 1: Discussion Habitat Concerns

North River



Bogue Sound



Appendix 1: Discussion

Habitat Concerns

Excessive sedimentation from mechanical gears can have negative impacts to soft bottom habitats

These gears also cause physical damage to habitats and organisms

Excessive sedimentation can also harm shellfish



Appendix 1: Discussion

Socioeconomic Analysis

Year	Trips	Participants	Ex-Vessel Value	Job Impacts	Income Impacts	Value Added Impacts	Sales Impacts
2022	41	3	< \$75,000*	4	\$44,522	\$92,392	\$105,235
2021	72	3	< \$75,000*	5	\$32,630	\$149,882	\$175,563
2020	32	6	\$18,891	7	\$29,053	\$53,201	\$62,685
2019	40	6	\$32,992	8	\$53,273	\$83,219	\$122,346
2018	56	9	\$24,752	10	\$38,595	\$69,255	\$84,564
2017	59	10	\$27,570	11	\$40,962	\$67,218	\$92,955
2016	106	15	\$83,951	19	\$123,316	\$214,598	\$268,630
2015	178	17	\$257,687	28	\$369,966	\$649,341	\$829,340
2014	360	33	\$226,378	43	\$338,399	\$554,643	\$777,574
2013	348	29	\$252,269	40	\$365,723	\$636,974	\$826,304
2012	414	29	\$284,867	41	\$423,831	\$701,532	\$960,031

* Indicates confidential data



Appendix 1: Discussion

Maintenance Dredging

- If MCH is discontinued, the exception for maintenance dredging would need to end as well
- This would help reduce turbidity associated with maintenance dredging projects



Appendix 1: Management Options

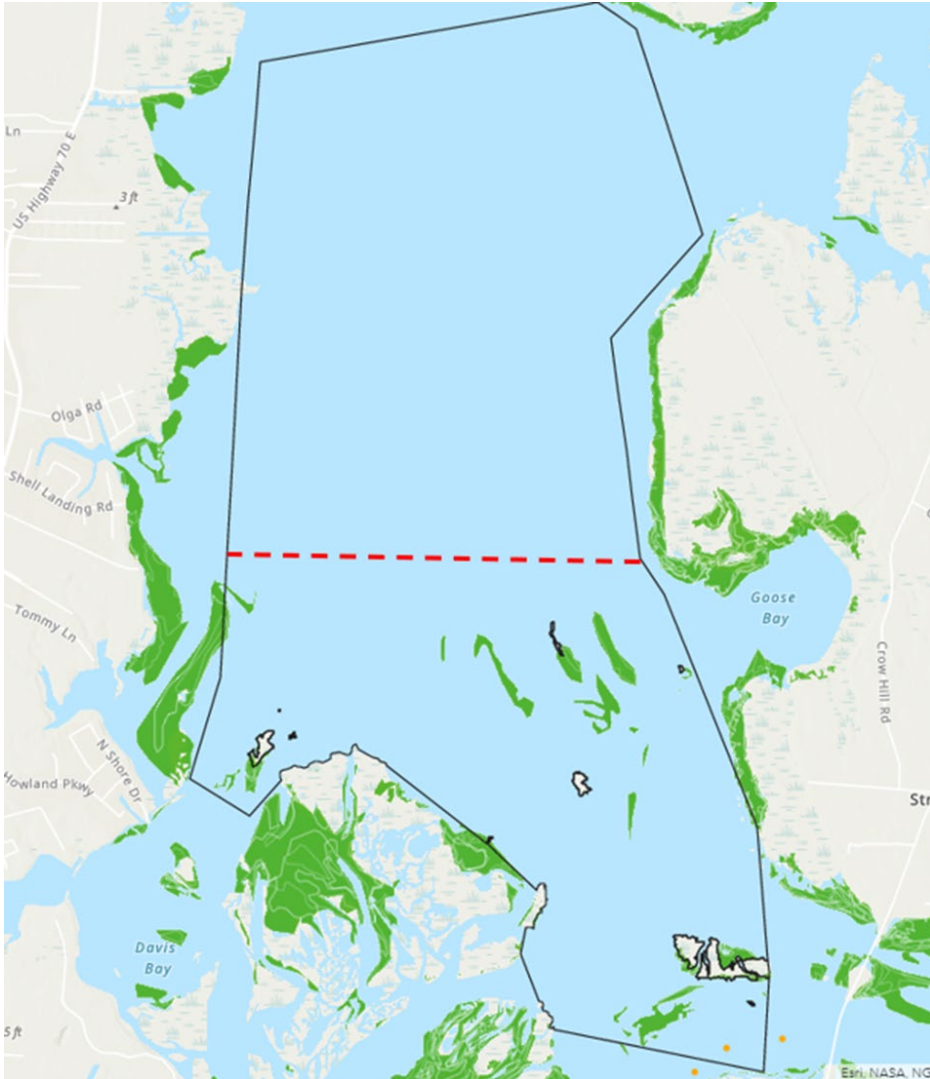


Appendix 1: Management Options

- Status quo
 - Historical significance
 - Supplemental income
 - Would not solve current state resources and enforcement issues
 - Habitat concerns would remain



Appendix 1: Management Options



- Further limit mechanical clam harvest areas to improve enforceability and lessen habitat effects
 - Make mechanical harvest areas rectangular for easier enforcement (i.e. North River)
 - Look into overlap areas



Appendix 1: Management Options

- Phase out mechanical clam harvest
 - G.S. 113 221 (d)
 - 3-year phase out and contingent on two triggers prior to 2027
 - There are at least 10 active mechanical clam harvesters in a given year
 - Landings from mechanical clam harvest increases to greater than 1 million clams in a given year



Appendix 1: Phase Out Timeline



- Final adoption of Hard Clam Amendment 3
- End of increase threshold period
- MFC reconsider phase out if both triggers met
- Phase out of fishery completed if triggers not reached



Appendix 1: Management Options

- Discontinue allowance for mechanical clam harvest in conjunction with maintenance dredging
 - Has not been utilized since 2007
 - Would require a rule suspension



Appendix 1: Draft Division Recommendations

- Phase out mechanical clam harvest
 - 3-year phase out with contingency triggers prior to 2027
 - At least 10 active participants
 - Greater than 1 million clams landed
- Discontinue allowance for mechanical clam harvest in conjunction with maintenance dredging



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Questions?

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Action Item

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