OYSTER FMP AMENDMENT
6/25/2003

AMENDMENT NUMBER: **1**

PROPOSED AMENDMENTS

A. Change the criterion for water depth in the Criteria for Designation of Oyster Harvest Methods from "waters less than 10 feet deep" to "waters less than ~~10~~ 6 feet deep." (Page 223, 2. II.)

B. Change recommendation C in 9.1.1 Oyster Management Measures (Page 86) from "Adopt criteria for the further designation of areas limited to hand harvest methods and designate those areas by rule" to " Adopt criteria for the further designation of areas limited to hand harvest methods and designate those areas by ~~rule~~ proclamation."

BACKGROUND

Although the Oyster FMP recommendations were available for comment at many locations over the course of the development of the plan, no comments were received on the change in hand harvest only area designations until the criteria were applied and maps of the areas designated for closure to mechanical harvest were produced. Therefore, the hand harvest criteria were adopted as presented in the FMP and the plan states that new designations for hand harvest areas will be accomplished in rule. Changes to the Oyster FMP require formal amendment.

Public meetings on the application of the adopted Criteria for the Designation of Oyster Harvest Methods were held during October 2002. During the course of the meetings the public consistently complained that the waters designated for hand harvest methods were too deep for harvest by that gear and that waters over six feet deep were too deep for hand harvesting. The public also expressed concern that, should the recommendations not result in an increase in oyster production, it could take two years to change the rules back to their current status depriving them of the ability to dredge in traditional areas for an extended period. Revised maps using the proposed 6 foot depth criterion were produced and received a more favorable response from the public when presented at a Shellfish Committee meeting. The Shellfish Committee voted to recommend the amendments proposed by the public.

CURRENT AUTHORITY

G. S. 113-182.1 Fishery Management Plans
G. S. 143B-289.52 Marine Fisheries Commission-powers and duties
Revised Guidelines for North Carolina Fishery Management Plans

DISCUSSION

Early attempts at managing mechanical harvest of oysters included depth limitations where oyster dredges could be used. The original statutory provisions restricted dredging to waters eight feet in depth or greater but they were later changed to waters greater than ten feet in depth. These restrictions primarily applied to Pamlico Sound and adjacent waters. The ten-foot depth restriction was in effect from 1895 to 1903. Currently, mechanical harvest of oysters is restricted by area not water depth and all coastal waters from Cedar Island to the South Carolina State line and behind the Outer Banks are closed to the mechanical harvest of oysters. Many of the sounds and rivers included in this area contain waters that are naturally up to ten feet deep. The FMP management strategy of using a ten-foot depth criterion is based on these comparisons to former restrictions and current conditions.

Persons opposed to the change in oyster harvest area designations presented convincing arguments that, although the current areas limited to hand harvest methods contained waters up to 10 feet deep, most if not all of the harvest in those areas occurred in waters six feet or less in depth due to the depth of oyster rocks found in high salinity areas. They also correctly noted that oysters in the lower salinity areas grow at depths below six feet.

Speakers at the public meetings also expressed concern over making the proposed changes to oyster harvest areas in rule. They noted that a rule change could take as long as two years to accomplish. Their idea for the proposed change appeared to be to close selected areas to mechanical harvest, wait one or two seasons to assess any benefits to oyster harvest, and return to mechanical harvesting immediately if oyster harvest from these areas does not increase.

DMF staff formulated this recommendation based more on the long-term benefits that a lower impact harvesting method would have on oyster habitat. Mechanical harvest of oysters has been cited as a major contributor to the reduction in natural oyster reef profile in Maryland, Virginia and North Carolina, including loss of up to three feet of vertical relief on natural oyster reefs in the Pamlico Sound system (Lenihan and Peterson 1998, DeAlteris 1988, Rothschild et al. 1994). Shallow water oyster reefs (<6') such as those in the proposed areas have thinner bases and can be more quickly and severely impacted by high impact harvest methods. The same is true for shallow water cultch planting sites. Both Chestnut (1955) and Winslow (1889) reported finding formerly productive areas in Pamlico Sound where intensive oyster harvest made further harvest and recovery of oyster rocks impossible. Chestnut (1955) also found that oyster rocks in North Carolina generally had thinner bases than oyster rocks in more northern states making them more vulnerable to harvest damage. Therefore, staff feel that the management strategy of restricting mechanical oyster harvest to areas where hand harvest is not

practical is a justified long-term management goal and not an experiment for increased oyster production.

DIVISION POSITION

Take the proposed amendments to the Regional Advisory committees for their recommendation. DMF recommends amending the Oyster FMP by changing the water depth criterion in the Criteria for Designation of Oyster Harvest Methods from 10' to 6'. DMF does not support an amendment to designate the hand harvest areas identified by the oyster harvest method criteria under proclamation authority. DMF supports following the FMP recommendation and adding the new areas in rule.

MFC SELECTED MANAGEMENT STRATEGY

Agreed with DMF recommendations and amended the Oyster FMP to include a 6' depth criterion for selecting where mechanical methods are prohibited for oyster harvesting on January 30, 2003.

LITERATURE CITED

Chestnut, A. F. 1955. A report of the mollusc studies conducted by the University of North Carolina Institute of Fisheries Research, 1948-1954. University of North Carolina, Institute of Fisheries Research, 39 p.

DeAlteris, J.T. 1988. The geomorphic development of Wreck Shoal, a subtidal oyster reef of the James River, Virginia. Estuaries 11:240-249

Lenihan, H. S., and C. H. Peterson. 1998. How habitat degradation through fishery disturbances enhances impacts of hypoxia on oyster reefs. Ecological Applications 8: 128-140.

Rothschild, B. J., J. S. Ault, P. Goulletquer, and M. Heral. 1994. Decline of the Chesapeake Bay oyster population: a century of habitat destruction and overfishing. Marine Ecology Progress Series 111:29-39.

Winslow, F. 1889. Report on the sounds and estuaries of North Carolina with reference to oyster culture. United States Coast and Geodetic Survey, Bulletin No. 10, 135 p.

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