



ROY COOPER
Governor

MICHAEL S. REGAN
Secretary

MEMORANDUM

TO: Chairs of the House of Representatives Appropriations Committee on Agriculture and Natural and Economic Resources and Senate Appropriations Committee on Natural and Economic Resources and the Fiscal Research Division

FROM: Department of Environmental Quality
Office of Legislative Affairs

SUBJECT: Oyster Research Reporting
University of North Carolina at Wilmington and the N.C. Division of Marine Fisheries

DATE: Feb. 26, 2018

Pursuant to Session Law 2015-241, the University of North Carolina at Wilmington and the Division of Marine Fisheries shall annually report no later than March 1 to the chairs of the Senate and the House of Representatives appropriations committees with jurisdiction over natural and economic resources and the Fiscal Research Division regarding the funding for oyster research and restoration activities provided by this act. The report shall include detail regarding the use of funds, including activities completed and additional personnel supported by the funds.

If you have any questions or need additional information, please contact Anderson Miller by phone at 919-817-0817 or via email at Anderson.Miller@ncdenr.gov.

cc: Chief Deputy Secretary John Nicholson
Division of Marine Fisheries Director Steve Murphey



Oyster Research Reporting FY2018 Annual Legislative Report

University of North Carolina Wilmington

Oyster Brood Stock Development Program/Shellfish Research Hatchery

The 2017 NC General Assembly provided \$500,000 to the Department of Environmental Quality to support the UNCW Shellfish Research Hatchery. The hatchery continues to use these funds to expand and strengthen its selective breeding program with the goal of developing and increasing production of lines of oysters that perform well (fast growth, high survival) in North Carolina waters. As reported previously, delays in the execution of the initial contract in 2016 delayed the planned expansion, resulting in the initial funds not being exhausted by the end of FY16. The residual funds were carried over, supporting operations and expansion in FY17. Similarly, the carryover from FY17 has supported operations during FY18. The overlap in funding is advantageous as it allows seamless support of staff salaries through the first quarter of the fiscal year prior to the arrival of new funding. The carryover from FY17, however, makes it unlikely that the FY18 allocation will be spent by the end of the fiscal year. The carryover from FY17 was used to support salaries (57 percent) and operations (24 percent). Additionally, capital expenditures were made to accommodate increased field support with the expansion of the aquaculture demonstration site to 1.8 acres. To date, the FY18 allocation has been expended for salaries (20 percent) and to obtain or replace necessary equipment (45 percent). Additional funds have been budgeted for additional staff, continued monitoring of disease, genetics and water quality, system maintenance and operational support. We anticipate the carry over to be similar or less than in previous years.

With the already implemented improvements in systems, monitoring and staffing, the breeding program continues to grow. Successful spawns increased from 11 to 15 from 2016 to 2017, resulting in an increase in seed production of over 65 percent. Over one-half million seed and 2 million larvae were sold to growers and another 50,000 seed and 1.75 million larvae were provided to researchers in 2017. We also provided broodstock from three lines to a commercial hatchery and another line to Carteret Community College's hatchery. With the expansion of the demonstration site in early 2017 and expanded production in 2016, we were able to grow-out more oysters, increasing our ability to select superior performers for the 2018 production cycle, which will begin in mid-March. We are currently holding another 150,000 of our odd-year lines in preparation for the 2019 season. To date, our selected lines continue to show increases in the yield of market-sized oysters at 18 months.

N.C. Division of Marine Fisheries

Restoration Activities

Cultch Planting

In Fiscal Year 2017-2018, the revised net appropriation for cultch planting is \$1.1 million, with \$155,088 of that as reoccurring funds. The division typically purchases shell throughout the year and marl in February, thus some of the expenditures for this fiscal year have not yet been incurred. Presently, the division has purchased 42,009 bushels of oyster shells at a total cost of \$103,381.78, including transportation. The division has arranged to purchase and transport an estimated 32,000 bushels of shell which has not yet been delivered, at an estimated cost of \$78,374, bringing the total number of oyster shells purchased by the division to 73,673 bushels of shell at an estimated cost of \$181,755. To supplement the purchased shell, the division is currently soliciting bids to purchase 400,710 bushels (18,050 tons) of marine limestone marl for cultch planting at an estimated cost of \$700,562.50 which includes material and transportation. The combined planned expenditures for the cultch material purchases are \$882,317.50. The remaining funds will be used to support program operations.

In addition, the division is continuing with plans to design and construct a replacement for the recently retired M/V West Bay deployment vessel. In Fiscal Year 2017-2018, the Shellfish Rehabilitation program anticipates contracting with a naval architecture firm to prepare complete design plans for use in future construction of a replacement vessel. These plans will cost an estimated \$80,000 – \$100,000, which will be mostly paid by legislative carry forward from the previous fiscal year and revenue from surplus equipment.

Oyster Sanctuaries

In Fiscal Year 2017-2018, the revised net appropriation for the Oyster Sanctuary program is \$1.4 million, with \$500,000 of that as reoccurring funds. Using these funds, the Oyster Sanctuary program will continue with the second year of its public-private partnership with the North Carolina Coastal Federation (NCCF). In this partnership, the division is responsible for permitting construction activities, purchasing reef material, and material stockpiling. The NCCF is responsible for soliciting, hiring, and paying contractors with grant funds to deploy material for the subtidal oyster sanctuary. Jointly, the NCCF and the division will construct a minimum of 10 acres of subtidal oyster sanctuary. To fulfill the division's portion of the partnership, 25,000 tons of class A granite rock is being purchased and delivered at a cost of \$1,300,000. Remaining funds will be used to support program operations.

