

BUILDING SUSTAINABLE FISHERIES

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EXECUTIVE SUMMARY

Our estuarine fisheries are important both culturally and economically to the Commonwealth. The blue crab (*Callinectes sapidus*) fishery has seen significant reductions in harvests in recent years. Even at a reduced level of approximately 18 million pounds, the dockside value of the blue crab fishery alone was approximately \$35 million.¹ Stakeholders and fishery managers have identified specific challenges that are currently reducing the capacity of this fishery to provide a multitude of benefits to the state. Targeted investments and policies pertaining to this fishery resource can help ensure the sustainability of this fishery from both an ecological and economic perspective.

CHALLENGE

Data from this year's estimate of blue crab abundance indicate a concerning downward trend in segments of the population.² In addition, the total number of crabs estimated in the population was the lowest on record.³ An ongoing concern in the blue crab fishery has been the excess amount of crabbing gear being utilized to catch blue crabs. In order to help reduce this problem, a crab pot tagging program should be implemented in order to help ensure a more appropriate amount of gear is deployed by the fishery and aid the Virginia Marine Resources Commission (VMRC) in management of the fishery.

Water withdrawal intakes kill billions of fish, shellfish, eggs, and larvae each year through impingement (organisms being pinned against mesh screens because of strong withdrawal velocity) or entrainment (organisms that go through a facility's water system because mesh size is too large). At Surry Power Station, for example, as many as 7.4 billion finfish and 49.1 billion shellfish are entrained annually.⁴ Across Virginia, energy production facilities that withdraw more than 2 MGD for cooling water purposes are required to meet new standards for velocity and mesh

size under section 316(b) of the Clean Water Act to reduce impingement and entrainment.⁵ But Virginia has not yet enforced these fish protection requirements, leaving the facilities to operate under permits with outdated and lethal velocity and mesh size standards.

SOLUTION

The General Assembly should appropriate the necessary funds to implement a pilot crab pot tagging program for three years. This will allow VMRC to gauge the effectiveness of such a program in protecting the blue crab resource, easing enforceability of management measures for the fishery, and the feasibility of adopting such a program on a long-term basis.

To protect Virginia's fisheries from unnecessary impingement and entrainment, the Department of Environmental Quality should work with power plants facilities to update their cooling water intakes to meet the new standards required by § 316(b) of the Clean Water Act.⁶

ENDNOTES

¹ "A Lean Year for Chesapeake Bay Blue Crabs," Virginia Marine Resources Commission (May 19, 2022). https://www.mrc.virginia.gov/news_releases/2022/2022-05-19-VA-WDS-Press-Release.pdf.

² "A Lean Year for Chesapeake Bay Blue Crabs."

³ "A Lean Year for Chesapeake Bay Blue Crabs."

⁴ Surry Power Station: Clean Water Act §316(b) Compliance Submittal Requirements §122.21(r)(2)-(9) Reports (February 15, 2019).

⁵ "National Pollutant Discharge Elimination System-Final Regulations To Establish Requirements for Cooling Water Intake Structures at Existing Facilities and Amend Requirements at Phase I Facilities," *Federal Register* 79, No. 48299 (August 15, 2014). <https://www.federalregister.gov/d/2014-12164>.

⁶ "National Pollutant Discharge Elimination System-Final Regulations."



POLICY RECOMMENDATIONS

Fund a 3-year pilot program from the general fund for crab pot tagging to help ensure the improvement of the blue crab resource and assist VMRC with management of the fishery.

Allocate funds necessary to complete a comprehensive blue crab stock assessment in partnership with other Chesapeake Bay region management bodies and blue crab scientists.

Direct DEQ to promptly enforce federal regulations implementing § 316(b) of the Clean Water Act for cooling water intakes at power plants to reduce impacts on fish populations.