

Ecosystem Health Report Cards in the Chesapeake Bay and its tributaries: management impacts and limitations, stakeholder perspectives and future direction

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Ecosystem health report cards provide accessible, synthesized information to wider audiences, and are an emerging tool for science communication and environmental management. In the Chesapeake Bay watershed, a number of bay-wide and tributary report cards have been developed by different organizations since the early 2000. In particular, the Chesapeake Bay Report Card by the University of Maryland Center for Environmental Science, the first scientifically rigorous broad assessment of the Bay and its major tributaries, was first published in 2007. Its publication through the years has inspired citizen scientist groups to create local report cards and catalyzed a myriad of positive actions from federal and state agencies and advocacy groups. However, its role in engaging a wider group of stakeholders (including watermen, farmers, community groups and public and private companies, and the general public) within the Chesapeake Bay and its overall societal impact has not been evaluated. In this study, we analyzed and compared the different report cards within the Bay. Using an inductive approach through content analysis of key informant interviews, we also identified how Chesapeake Bay stakeholders value the Bay and their perceptions on the management impacts and limitations of report cards. Finally, we show how the results of this study could inform the 5-year process of expanding the Chesapeake Bay report card (beginning 2019). This will lead to a holistic report card that consider both the accuracy of scientific information and the diversity of cultural values held by the various stakeholder groups within the Chesapeake Bay.

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