

2023 NCCOS HAB and Hypoxia Review Panelist Charge

Overview

In NOAA, program evaluations examine quality, relevance and performance at the level of a laboratory, center, program, or science theme. The 2023 NCCOS Harmful Algal Bloom (HAB) and Hypoxia Review will provide a focused assessment of the 1) science and management of research transitions, 2) systematic approach to service delivery, and 3) responsiveness to input from the 2018 HABs and Hypoxia Review. This includes science activities conducted via funding from discretionary, extramural, and external sources.

NCCOS science includes the full spectrum of research transitions, including transitions to operations (R2O), application (R2A), commercialization (R2C), knowledge transfer, and other uses. In addition, NCCOS seeks to meet many of the service delivery standards set forth by NOAA ([ref.](#)). Science activities supporting HAB, HAB toxin, and Hypoxia-related R&D falling under the 2023 review will include 1) monitoring and detection technology, 2) improvements of modeling and predictive capabilities, 3) forecasting, and 4) control and other hazard mitigation technologies.

In lieu of a comprehensive review of all projects, reviewers will receive briefings on a subset of projects and products within the HAB and Hypoxia portfolio as examples that represent NCCOS' approach to research transitions, service delivery, and responsiveness to the previous review. Testimonials and other data from user groups will also be used to further inform the reviewers' assessment. Reviewers are charged with scoping their assessment according to the "Quality", "Relevance", and "Performance" criteria as outlined in [NOAA Administrative Order 216-115B Handbook](#) and the [NOS Program Evaluation Framework](#). Prior to the review, NCCOS will offer separate briefings and Q&A sessions to ensure panelists have a strong understanding of the principles of these foundational policies. Reviewers' assessments will be guided by the following core questions:

Reviewers' Responsibility

NCCOS will present data and information relevant to its HAB and hypoxia portfolio during the course of the review, primarily as lecture presentations and in the briefing book. Each member of the Review Panel will use that information and any ensuing discussion to come up with independent observations, evaluation, and recommendations on different aspects of the portfolio (reviewers are encouraged to use the attached format). We have formulated the

following questions to guide your review and to conform to the three core evaluation criteria:

Matrix of Review Criteria and Scope			
	Quality	Relevance	Performance
Service Delivery	Results of R&D efforts are providing reliable and accurate information to user groups	R&D outputs are providing data and services that are visible, accessible, and impactful to users	Measures put into place to ensure corporate knowledge of user needs and integrate knowledge into overall portfolio planning
Research Transitions	Appropriate steps are taken to ensure accuracy and reliability of data/services/technology as R&D moves through readiness levels	Knowledge of user needs and relevant environment are integrated into the design and augmentation of R&D throughout readiness level pipeline	Management decisions and structures are in place to efficiently transition research
Follow-up 2018 Review	Description of how steps taken across the portfolio have supported each criteria		

Quality

1. How well are NCCOS scientists, both intramural and extramural, and program managers recognized as leaders in their scientific disciplines for the quality of their contributions (e.g., authors of peer-reviewed publications; congressional briefings; invited lectures; awards and recognition; and national and international leadership positions in the scientific community)?
2. How effective are NCCOS intramural and extramural studies in developing (a) new and validated analytical methods and technologies in wide use, and (b) advanced tools to understand and mitigate HAB and hypoxia events (e.g., forecast models, sensors, and prevention-control mitigation (PCM) technologies)?
3. How does NCCOS assure and does it have procedures for funding preeminent research and impactful science?

Relevance

1. How well has the portfolio supported noteworthy achievements in improving

scientific understanding of causes of HAB that have led to improvements in HAB management and response?

2. How effective are the hypoxia modeling and related studies in informing Federal guidance on nutrient management strategies in upland states?
3. Is there evidence of the application of the NCCOS-produced scientific knowledge for improving preparedness and response to HAB and hypoxia events by local, state, tribal, and regional governments and for preventing or minimizing HAB and hypoxia occurrence?
4. How effective has NCCOS been in transitioning research to applications, i.e., operations, commercialization, and management use, and how such transitions may be improved.

Performance

1. How effective is the NCCOS HAB and hypoxia portfolio in meeting the requirements of HABHRCA (e.g., documenting improved scientific knowledge and communicating information on HAB and hypoxia impacts, delivering an assessment plan for the Great Lakes HAB and hypoxia, and promoting and coordinating a national research strategy on HAB and hypoxia).
2. How well does NCCOS execute its research and related studies in an efficient and effective manner given the resources?
3. How effectively does NCCOS utilize collaboration and partnerships to achieve desired outcomes, and how well are stakeholders engaged in transitioning research to applications?
4. How effective are NCCOS roles in leading workshops, symposia and training that result in outputs that drive management outcomes?

Given the scope of planned presentations as well as anticipated use of the panel's recommendations, the "Relevance" criterion is the most important one. Prior to the review, the reviewers may suggest additional criteria, and at the review, each reviewer will be free to ask additional questions as appropriate.

Anticipated Products

Each member of the review panel will use her / his scientific expertise and professional judgment to provide independent observations, evaluation, and recommendations on different aspects of the NCCOS HAB and hypoxia portfolio, including product value and utilization. Each member of the Review Panel will also prepare notes on his/her observations, comments and recommendations that, at a minimum, address the three core evaluation criteria: Quality, Relevance, and Performance. For convenience, a tabular format is provided for recording comments on different aspects of the review (attachment).

Panel members will present their preliminary finds to NCCOS and NOS leadership (Day 3 of the review). Individual written reports, following the attached format, will be due within 60 days after the review. ***No consensus report is required.*** The Review Panel chair may summarize findings from the review (e.g., salient points, recurring themes, or notable exceptions) in the Review Panel's presentation to NCCOS and NOS leadership (Day 3 of the review) and in a written report (due within 60 days after the review).

NOAA procedures allow for "evaluation ratings" with a bipolar construct for program components, e.g., Exceeds Highest Expectations, Exceeds Expectations, etc. However, we are not requiring the panel members to do that. Also, note that answering the question merely by "yes" or "no" will not be sufficient in conveying your observations, assessment and recommendations and should be avoided.

Review Report

Individual reviewer reports will be compiled in a document for use by NCCOS director and program managers. The document will be used for planning of future science and related activities and improving the performance of current and near-term projects. Individual review reports will not be made public, and will only be used by NCCOS as background for the final report. Internal distribution of the individual reports will be limited.

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