

Project Title: HABscope

Program Office Sponsoring or Conducting this CSC Project: Gulf of Mexico Coastal Ocean Observing System and NOS/NCCOS/Stressor Detection and Impact Branch

Authority for this CSC Project: HABHRCA and CCSA

Purpose of this CSC Project: With this project, researchers and citizen science volunteers collect water samples and test them with a HABscope, which is a portable microscope system that uses video and artificial intelligence to quickly analyze water samples for near real-time cell counts of *Karenia brevis*, the organism that causes red tide in the Gulf of Mexico. In the water, brevetoxins cause massive fish kills, mortalities of manatees, sea turtles, sea birds and dolphins, as well as pose a risk of neurotoxic shellfish poisoning. Brevetoxins also become aerosolized, which leads to substantial human health and economic impact. NOS uses the test results and models to provide robust, timely and useful bloom locations and respiratory forecasts, which are used to reduce the harmful effects of brevetoxins. For example, they provide information for the *Karenia brevis* respiratory risk forecast system in the Gulf of Mexico, which NOS developed to reduce the human health and economic impacts of *Karenia brevis*.

Type(s) of Information Collected and From Whom It Is Collected: *Karenia brevis* cell numbers are collected from volunteers who use HABscopes to test water samples from the beach. The cell number information is submitted with date, time and location data.

Use of the Information: NOS uses the test results to develop, test and improve models, which provide robust, timely and useful bloom locations and respiratory forecasts that NOS uses to reduce the harmful effects of brevetoxins.

Method(s) of Information Collection: Electronically. Data are sent to the GCOOS website.

Affected Public: West Coast of Florida beachgoers and coastal businesses in the same areas

Estimated Average Annual Number of Participants: 50

Estimated Average Annual Number of Responses per Participant: 300.00

Estimated Average Minutes per Response: 20.00

Estimated Average Annual Burden Hours: 5,000

Estimated Total Annual Cost to Participants in this CSC Project: \$0

Estimated Average Annual Costs to the Federal Government: \$28,659

Estimated Average Annual Number of Federal Government Employees (FTEs): 0.09

Recruitment and Retention Methods for Voluntary Participants (SSA item 1): There are no recruitment or retention methods for voluntary participants. Volunteers are actively asking to be involved; however, selection is based upon the location of a volunteer relative to the coast of West Florida. Ideally, a coastal/beach resident is selected due to samples needing to be

processed quickly. Retention is encouraged through the respiratory forecast product and the volunteer knowing they were a part of that forecast.

Gifts or Payments (SSA Item 9): We do not plan to provide a gift or payment to the voluntary participants.

Annual and Multi-Year Schedules (SSA Item 16): This program is ongoing year round and has been since 2018.

Display OMB Control No. and Expiration Date (SSA Item 17): This information will be provided when individuals sign up to participate in this CSC project.

Statistical Methods: This CSC project will not employ statistical methods.

Approval for Pretesting: This CSC project will not require additional pretesting with more than nine members of the public.

Supplemental Documents: The supplemental document for this CSC project provided screenshots of the app used to enter data and a screenshot of an internal webpage at habscope.gcoos.org where videos are analyzed and enumerated into cells/L. This information is not available to the public.

CERTIFICATION: I certify the following are true.

1. The collection is voluntary.
2. The collection is low-burden for respondents and low-cost for the Federal Government.
3. The collection is non-controversial and does not raise issues of concern to other federal agencies.
4. The collection will not include highly influential scientific information, which is information NOAA or OMB determines: (i) could have a potential impact of more than \$500 million in any year, or (ii) is novel, controversial, or precedent setting or has significant interagency interest.
5. The collection complies with 5 CFR 1320.9 and the related provisions of 5 CFR 1320.8(b)(3).
6. The collection will provide qualitative and quantitative data that help inform scientific research and monitoring, validate models or tools, support STEM learning, and enhance the quantity and quality of data collected to support NOAA's mission.

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