Request for Approval under the "Generic Clearance for Participatory Science and Crowdsourcing Projects" (OMB Control Number: 2080-0083; EPA ICR Number: 2521.44)

TITLE OF INFORMATION COLLECTION: Chesapeake Bay Solutions Driven Research Discussion Groups

PURPOSE:

EPA's Office of Research and Development (ORD) is partnering with an under-served, socially vulnerable community in the Chesapeake Bay region, Crisfield, Maryland, to co-develop research addressing climate-related flooding and erosion issues incorporating natural infrastructure comprised of coastal resources such as salt marshes and submerged aquatic vegetation (SAV). Such blue carbon resources not only attenuate wave energy and provide shoreline stability to help decrease coastal flooding and erosion but also create habitat, improve water quality, provide recreational and tourism opportunities, and sequester carbon. This project will directly engage with the community to better understand their challenges and short- and long-term goals and work together on developing methodologies to better inform their decision-making around the use of blue carbon natural infrastructure for coastal protection and associated co-benefits such as restoring habitat for economically important living resources, enhancing natural-resource-based tourism, and generally focusing on improving community health and wellbeing.

The goal of small group discussions is to better understand relationships between the people of Crisfield and Crisfield's natural spaces and coastal environment, including what natural ecosystems are important to the Crisfield community, how have they changed over time, how do the people of Crisfield use these ecosystems, what specific characteristics of these ecosystems does the community care about, or what impacts might nature-based solutions have on the community. This information will help ORD and the community identify and evaluate potential 'nature-based' strategies, such as marsh restoration or living shorelines or oyster reefs, that could be considered to address long-term flooding issues, and communicate the potential broader impacts or co-benefits of 'nature-based' strategies, such as recreational and fishing opportunities, to the Crisfield community.

NEED AND AUTHORITY FOR COLLECTION:

This research is conducted to support efforts to restore living resources in the Chesapeake Bay ecosystem under the Clean Water Act (CWA) Section 117, 33 USC Section 1267. Solutions Driven Research (SDR) is a specific research approach that emphasizes stakeholder engagement and integration of tasks to develop research that is directly along the path to a solution or decision. By nature, ORD's research seeks to provide solutions to environmental public health challenges, and SDR can enhance solutions development and delivery.

USES OF RESULTING DATA:

Community feedback from small groups discussions will be used to inform ORD solutions driven research to 1) identify nature-based strategies to improve long-term flood resilience in Crisfield, 2) model flood mitigation by nature-based strategies, 3) identify and prioritize ecosystem services and natural resource benefits of primary concern to Crisfield, 4) and model the potential ecosystem services co-benefits of nature-based strategies.

Ongoing project progress and results will be periodically communicated back to discussion group participants and project community partners, and research iteratively revised to consider modified strategies or outcomes based on community feedback as needed.

DATA COLLECTION METHODS:

Discussion groups will include approximately 10-30 people. Participants will self-select through signup sheets or may be recommended by project community partners (e.g., the Mayor's office). Participation is completely voluntary and participants determine their own degree of participation and can leave at any time. The intention is to be as inclusive of community participation as possible. The intention is that the participants serve as representatives of their community (including, but not limited, to their own opinion). To maximize participation or due to meeting space limitations, we may need to break into smaller sub-groups or supplement verbal discussion with a written questionnaire.

Participants will be asked, as a group, a series of discussion questions about natural spaces important to their community and the potential role for nature-based solutions. Participants will be shown material developed by ORD (e.g., preliminary research results) and questions via a slide presentation, or other visual aids (flip charts, posters). Workshop discussions will be paired with a follow-along packet/questionnaire/handouts where participants have the option to provide written responses to discussion questions if they prefer. Written responses will be anonymous and consolidated into group summaries, not attributed to individuals.

PARTICIPANT UNIVERSE:

Category of Respondent	Respondents	Responses per respondent	Time per response	Burden Hours
People who live and work in the Crisfield area (Active participants in verbal discussions)	15	7	10 minutes	17.5 hours
People who live and work in the Crisfield area (Written questionnaire)	15	7	10 minutes	17.5 hours
Totals	30	7	10 minutes	35 hours

AGENCY COST:

- Contractor support to assist with discussion group logistics, planning, implementation, qualitative analysis, and summary report - $24,000

- ORD staff – planning, implementation, review of summary report –
    - GS14 x 80 hours x $66.92 x 1.6 (https://www.opm.gov/policy-data-oversight/pay-leave/salaries-wages/salary-tables/23Tables/html/RUS_h.aspx) - $8565.76
    - GS13 x 40 hours x $60.83 x 1.6 (https://www.opm.gov/policy-data-oversight/pay-leave/salaries-wages/salary-tables/23Tables/html/DCB_h.aspx) - $3893.12
    - GS12 x 40 hours x $52.66 x 1.6 (https://www.opm.gov/policy-data-oversight/pay-leave/salaries-wages/salary-tables/23Tables/html/DCB_h.aspx) - $3370.24
    - GS13 x 10 hours x $51.91 x 1.6 (https://www.opm.gov/policy-data-oversight/pay-leave/salaries-wages/salary-tables/23Tables/html/RUS_h.aspx) – $830.56
    - GS13 x 10 hours x $50.34 x 1.6 (https://www.opm.gov/policy-data-oversight/pay-leave/salaries-wages/salary-tables/23Tables/html/RUS_h.aspx) = $805.44
    - GS14 x 10 hours x $61.35 x 1.6 (https://www.opm.gov/policy-data-oversight/pay-leave/salaries-wages/salary-tables/23Tables/html/RUS_h.aspx) = $981.60
- Travel costs for ORD to attend meeting in Crisfield, MD – 2 from outside DC area, approximately $2500 x 2 = $5000; 2 from Washington, DC area, approximately $500 x 2 = $1000

The estimated annual (one time) cost to the Federal government is $48446.72.

STATISTICAL ANALYSIS:

No formal statistical analysis is planned. Qualitative analysis will be used to identify key themes, supported by citations and summaries from discussions and questionnaires. Verbal and written answers will be coded using the National Ecosystem Services Classification System and the Final Ecosystem Goods and Services Scoping Tool to identify the top natural resource users and natural resource attributes of relevance to the Crisfield community. These attributes will then be considered top priorities for further ORD research to map, measure, and model potential benefits of nature-based solutions to the Crisfield community.

Tetra Tech is supporting EPA ORD research and assessment activities under Task Order 68HERC23F0158 as part of the Chesapeake SDR, addressing coastal resiliency with blue carbon resources in four areas: (A) community engagement, (B) natural infrastructure for coastal resilience, (C) blue carbon, and (D) social context of risk assessment. Tetra Tech will assist ORD in recruiting and registering group discussion participants. Tetra Tech will assist ORD in developing discussion group questions, meeting logistics, and implementing discussion groups. Tetra Tech will develop a summary of small group discussions, performing qualitative analysis to identify key themes.

DATA QUALITY ASSESSMENT PROCEDURES:

Project team members from ORD and Tetra Tech will attend the small group discussion to take notes, with a minimum of 2 notetakers. Questionnaires of discussion questions will be used to supplement verbal discussions, as an alternative instrument to verbal answers and an opportunity for participants to provide additional clarifying information. Visual aids (e.g., maps, illustrations)

will be used to help make sure participant comments are being interpreted correctly by facilitators and notetakers. The National Ecosystem Services Classification System will be used to provide consistency in coding participant answers on important ecosystems, natural resource users, and natural resource attributes. Tetra Tech will draft initial workshop summary and key themes, providing support for themes using citations and qualitative summaries from focus group discussions and question, which ORD representatives who also attended the meeting will review for accuracy before developing a final report.

ADMINISTRATION OF THE INSTRUMENT: (Check all that apply)

[ ] Web-based or Social Media
[ ] Mail
[ ] Telephone
[ ] Other, Explain
[X] In-person

INSTRUMENT: Chesapeake Bay Solutions Drive Research Discussions Information and Packet included.

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