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**Supporting Statement A
U.S. Department of Commerce
National Oceanic & Atmospheric Administration
Generic Clearance for Citizen Science and Crowdsourcing Projects
OMB Control No. 0648-NEW**

Appendix A

**Federal Laws, Executive Orders and Federal Policies Plans That Authorize and/or Support
NOAA's Citizen Science and Crowdsourcing Projects**

SEC. 402 of the American Innovation and Competitiveness Act of 2017, which is the Crowdsourcing and Citizen Science Act, authorizes agencies to harness the ingenuity of the public by using open innovation methods such as citizen science and crowdsourcing (CSC), in part by using voluntary participants in CSC projects designed to advance the mission of the respective Federal science agency. 16 U.S. Code § 742f(c) (Powers of Secretaries of the Interior and Commerce: Volunteer Services; Incidental Expenses; Federal Employee Status; Authorization of Appropriations) authorizes NOAA to use volunteers for CSC projects, as well as other purposes. In addition, the DOC's Department Administrative Order (DAO) 202-311 for Voluntary and Uncompensated Services sets forth laws, policies, guidelines, and procedures regarding voluntary and uncompensated services. For example, it provides information on various types of volunteer programs and provides guidance on accepting services, which do not involve an employer-employee relationship.

A variety of other Federal laws, Executive Orders (EOs), Federal policies and the NOAA FY22-26 Strategic Plan, support NOAA's use of CSC projects to meet its mission, which is to understand and predict changes in climate, weather, ocean, and coasts, to share that knowledge and information with others, and to conserve and manage coastal and marine ecosystems and resources. However, with three exceptions, they do not authorize NOAA to use voluntary participants or voluntary workers in CSC projects. The exceptions are the National Environmental Education Act (NEEA), the Save Our Seas 2.0 Act, which is related to the Marine Debris Act (MDA), and 15 USC Ch. 9 (National Weather Service).

The NEEA and the Save Our Seas 2.0 Act each authorize NOAA to use volunteers on a specific board. The 15 USC Ch. 9 provides the authority for the National Integrated Drought Information System to "utilize and support, as appropriate, monitoring by citizen scientists, including by developing best practices to facilitate maximum data integration." In addition, it provides NOAA the authority to strengthen the Cooperative Weather Observer Program and encourage public participation in the program by (1) providing distinctive insignia or paraphernalia to Cooperative Weather Observers and (2) making awards of nominal value to recognize continued

participation in the program by observers or to recognize outstanding achievements by such observers or groups of observers.

This appendix provides a brief description of each of the following acts, EOs, policies, and the NOAA FY22-26 Strategic Plan, which authorize and/or support NOAA's CSC project. Those descriptions are in the following sections and order:

A. Federal Laws That Authorize the Use of Voluntary Participants or Volunteers in a Broad Range of CSC Projects

1. Crowdsourcing and Citizen Science Act
2. 16 U.S. Code § 742f(c)
3. DOC's DAO 202-311

B. Federal Laws That Authorize and/or Support NOAA's Use of CSC Projects to Meet Its Mission

1. Coast and Geodetic Survey Act (CGSA)
2. Coastal Zone Management Act (CZMA)
3. Digital Coast Act (DAC)
4. Endangered Species Act (ESA)
5. Harmful Algal Bloom and Hypoxia Research and Control Act (HABHRCA)
6. Magnuson-Stevens Fishery Conservation and Management Act (MSA)
7. Marine Debris Act (MDA)
8. Marine Mammal Protection Act (MMPA)
9. National Environmental Education Act (NEEA)
10. National Environmental Policy Act (NEPA)
11. National Marine Sanctuaries Act (NMSA)
12. Ocean and Coastal Mapping Integration Act (OCMIA)
13. Organic Act of 1890 (OA)
14. Weather Research and Forecasting Innovation Act (WRFIA)
15. 15 USC Ch. 9: (National Weather Service)

C. Executive Orders and Federal Policies and Plans That Authorize and/or Support NOAA's Use of CSC Projects to Meet Its Mission

1. EO 12866 (Regulatory Planning and Review)
2. EO 12898 (Environmental Justice)
3. EO 13985 (Advancing Racial Equity and Support for Underserved Communities Throughout the Federal Government)
4. EO 14008 (Tackling the Climate Crisis at Home and Abroad)

5. GAO Report 17-507. Open Innovation: Executive Branch Developed Resources to Support Implementation, but Guidance Could Better Reflect Leading Practices. June 2017
6. 2013 Second Open Government National Action Plan
7. 2015 Third Open Government National Action Plan
8. OMB Memo M-11-07. Facilitating Scientific Research by Streamlining the Paperwork Reduction Act Process. December 9, 2010
9. OMB Memo M-10-06. Open Government Directive. December 8, 2009
10. OMB Memo M-15-16. Multi-Agency Science and Technology Priorities for the FY 2017 Budget. July 9th, 2015
11. NOAA FY22-26 Strategic Plan

A. Federal Laws That Authorize the Use of Voluntary Participants or Volunteers in a Broad Range of CSC Projects

1. **Crowdsourcing and Citizen Science Act (CCSA):** Under this Act, the head of a Federal science agency, with some restrictions, may accept services from participants in CSC projects conducted under this Act. In addition, they may utilize crowdsourcing and citizen science to conduct projects designed to advance the mission of the respective Federal science agency or the joint mission of Federal science agencies, as applicable. If they are engaged in a CSC project under this Act, they shall make public and promote such a project to encourage broad participation.

The following provisions of this Act are relevant for determining the CSC projects NOAA can conduct under the CCSA and the relationship between NOAA and each voluntary participant in those projects. The CCSA define citizen science as “a form of open collaboration in which individuals or organizations participate voluntarily in the scientific process in various ways, including: (A) enabling the formulation of research questions; (B) creating and refining project design; (C) conducting scientific experiments; (D) collecting and analyzing data; (E) interpreting the results of data; (F) developing technologies and applications; (G) making discoveries; and (H) solving problems.” It defines crowdsourcing as “a method to obtain needed services, ideas, or content by soliciting voluntary contributions from a group of individuals or organizations, especially from an online community.”

The CCSA includes the following definition of “participant” but does not define “volunteer.”

- (1) The term “participant” means any individual or other entity that has volunteered in a crowdsourcing or citizen science project under this section.

In addition, the CCSA includes the following provisions.

(d) CROWDSOURCING AND CITIZEN SCIENCE

- (1) **IN GENERAL** The head of each Federal science agency, or the heads of multiple Federal science agencies working cooperatively, may utilize crowdsourcing and

citizen science to conduct projects designed to advance the mission of the respective Federal science agency or the joint mission of Federal science agencies, as applicable.

(2) VOLUNTARY SERVICES Notwithstanding section 1342 of title 31, the head of a Federal science agency may accept, subject to regulations issued by the Director of the Office of Personnel Management, in coordination with the Director of the Office of Science and Technology Policy, services from participants under this section if such services—

(A) are performed voluntarily as a part of a crowdsourcing or citizen science project authorized under paragraph (1);

(B) are not financially compensated for their time; and

(4) CONSENT, REGISTRATION, AND TERMS OF USE

(A) In general Each Federal science agency shall determine the appropriate level of consent, registration, or acknowledgment of the terms of use that are required from participants in crowdsourcing or citizen science projects under this section on a per-project basis.

(B) Disclosures In seeking consent, conducting registration, or developing terms of use for a project under this subsection, a Federal science agency shall disclose the privacy, intellectual property, data ownership, compensation, service, program, and other terms of use to the participant in a clear and reasonable manner.

(C) Mode of consent A Federal agency or Federal science agencies, as applicable, may obtain consent electronically or in written form from participants under this section.

(6) DATA

(A) In general A Federal science agency shall, where appropriate and to the extent practicable, make data collected through a crowdsourcing or citizen science project under this section available to the public, in a machine readable format, unless prohibited by law.

(B) Notice As part of the consent process, the Federal science agency shall notify all participants—

(i) of the expected uses of the data compiled through the project;

(ii) if the Federal science agency will retain ownership of such data;

(iii) if and how the data and results from the project would be made available for public or third party use; and

(iv) if participants are authorized to publish such data.

(8) LIABILITY Each participant in a crowdsourcing or citizen science project under this section shall agree—

(A) to assume any and all risks associated with such participation; and

(B) to waive all claims against the Federal Government and its related entities, except for claims based on willful misconduct, for any injury, death, damage, or loss of property, revenue, or profits (whether direct, indirect, or consequential) arising from participation in the project.

Item (d)(4), (d)(6) and (d)(8) address the nature of the required agreement/contract between NOAA and each voluntary participant in a CSC project. The CCSA restriction that voluntary participants “are not financially compensated for their time” does not prevent the use of other types of reimbursement or incentives as part of a CSC project. The requirement of a periodic report on the CSC projects carried out under the CCSA can be burdensome.

2. 16 U.S. Code § 742f(c) (Volunteer Services; Incidental Expenses; Federal Employee Status; Authorization of Appropriations)

Under § 742f(c):

(1) The Secretary of the Interior and the Secretary of Commerce may each recruit, train, and accept, without regard to the provisions of title 5, the services of individuals without compensation as volunteers for, or in aid of programs conducted by either Secretary through the United States Fish and Wildlife Service or the National Oceanic and Atmospheric Administration.

(2) The Secretary of the Interior and the Secretary of Commerce are authorized to provide for incidental expenses such as transportation, uniforms, lodging, awards (including nominal cash awards) and recognition, and subsistence of such volunteers without regard to their places of residence.

(3) Except as otherwise provided in this subsection, a volunteer shall not be deemed a Federal employee and shall not be subject to the provisions of law relating to Federal employment, including those relative to hours of work, rates of compensation, leave, unemployment compensation, and Federal employee benefits.

(4) For the purpose of the tort claim provisions of title 28, a volunteer under this subsection shall be considered a Federal employee.

(5) For the purposes of subchapter I of chapter 81 of title 5, relating to compensation to Federal employees for work injuries, volunteers under this subsection shall be deemed employees of the United States within the meaning of the term “employees” as defined in section 8101 of title 5, and the provisions of that subchapter shall apply.

3. DOC's DAO 202-311 for Voluntary and Uncompensated Services

The DOC's Department Administrative Order (DAO) 202-311 for Voluntary and Uncompensated Services "sets forth laws, policies, guidelines, and procedures regarding voluntary and uncompensated services, and on services which may appear to be voluntary or gratuitous but which require compensation." More specifically, it "provides information on de facto employment and various volunteer programs, provides guidance on accepting services which do not involve an employer-employee relationship, sets policy on citizenship requirements for student volunteers, provides for written agreements or letters of understanding for Guest Workers and Research Associates, and expands guidance on host-enrollee programs in which the Department of Commerce ("the Department") may participate.

The following parts of Sections 2 and 5, respectively, for Voluntary Service and Cooperative Service and Activities are relevant for CSC projects:

SECTION 2. VOLUNTARY SERVICE.

.01 Definition. Except as it applies to specific programs mentioned in this Order, "voluntary service" is service provided by any person on their own initiative without a formal request from the United States Government through an authorized appointing officer.

.04 Volunteers in the National Oceanic and Atmospheric Administration (NOAA). Under 16 U.S.C. 742f, NOAA may recruit, train, and accept the services of volunteer workers for or in aid of programs related to fish and wildlife programs or activities.

SECTION 5. COOPERATIVE SERVICE AND ACTIVITIES.

.01 Service to the United States Government Without an Employment Relationship.

a. An individual may provide service to the Government without compensation if the service is provided without the establishment of an employer-employee relationship (see 5 U.S.C. 2105) and is otherwise lawful (e.g., does not constitute prohibited voluntary service). The individual providing the service does not receive an appointment as an employee of the United States Government. Examples of such service include the following:

1. Consulting with or furnishing advice to the Government;
6. Participating as a private person in a joint or cooperative activity in which the Government has an official interest (such as Observers for the National Weather Service); and
7. Providing other service of benefit or interest to the Federal Government, as approved by the General Accounting Office.

b. Only an appointing or procurement officer may authorize a request, agreement, or contract for service to the Department of the kind described in Subparagraph a. above. The

arrangement should be confirmed in writing, and the individual should sign a waiver of compensation. The model form attached as Exhibit 2 to this Order may be used for this purpose.

.04 Individuals Working on Projects of Mutual Interest. The Secretary of Commerce is authorized by statute to engage in joint projects of mutual interest in collaboration with nonprofit, research, or public organizations or agencies (15 U.S.C. 1525). Unpaid volunteers from the co-sponsoring organization (i.e., the organization or agency other than the Department) might work with Commerce employees on the projects. Before being undertaken, projects of this type should be reviewed by the appropriate personnel office, and as necessary, by the Assistant General Counsel for Administration.

B. Federal Laws That Authorize and/or Support NOAA's Use of CSC Projects to Meet Its Mission

- 1. Coast and Geodetic Survey Act of 1947 (CGSA):** This Act identifies a number of activities the Secretary of Commerce is authorized to conduct; however, it does not provide the authority to use volunteers to assist in conducting those activities.
- 2. Coastal Zone Management Act (CZMA):** This Act provides for the management of the nation's coastal resources, including the Great Lakes and has the goal to "preserve, protect, develop, and where possible, to restore or enhance the resources of the nation's coastal zone"; however, it does not provide the authority to use volunteers to help manage the nation's coastal resources.
- 3. Digital Coast Act (DAC):** This Act requires the Secretary of Commerce to fill data information gaps, develop publicly available tools that integrate various data products, provide greater focus on underserved areas, including Alaska, and document best practices; however, it does not provide the authority to use volunteers to assist in meeting those requirements..
- 4. Endangered Species Act (ESA):** The purposes of the ESA are to prevent extinction and to recover species to the point where the law's protections are not needed; however, the EPA does not provide the authority to use volunteers to assist in meeting those purposes.
- 5. Harmful Algal Bloom and Hypoxia Research and Control Act of 1998 (HABHRCA):** This Act states, "the Under Secretary, acting through the Task Force, shall maintain and enhance a national harmful algal bloom and hypoxia program." However, it does not provide the authority to use volunteers in any of the activities of that program.
- 6. Magnuson-Stevens Fishery Conservation and Management Act (MSA):** The MSA states, "The Secretary shall initiate and maintain, in cooperation with the Councils, a comprehensive program of fishery research to carry out and further the purposes, policy, and

provisions of this chapter. Such a program shall be designed to acquire knowledge and information, including statistics, on fishery conservation and management and on the economics and social characteristics of the fisheries.” However, it does not provide the authority to use volunteers to assist in any of the program activities.

- 7. Marine Debris Act (MDA):** The Act requires NOAA to “identify, determine sources of, assess, prevent, reduce, and remove marine debris and address the adverse impacts of marine debris on the economy of the United States, marine environment, and navigation safety”, but, it does not provide the authority to use volunteers to assist in meeting those requirements.

However, a related Act provides explicit authority for NOAA to use volunteers for a specific purpose. The Save Our Seas 2.0 Act established the Marine Debris Foundation and states, “The Secretary of Commerce may accept, without regard to the civil service classification laws, rules, or regulations, the services of the Foundation, the Board, and the officers and employees of the Board, without compensation from the Department of Commerce, as volunteers in the performance of the functions authorized in this title.”

- 8. Marine Mammal Protection Act (MMPA):** This Act established a national policy to prevent marine mammal species and population stocks from declining beyond the point where they ceased to be significant functioning elements of the ecosystems of which they are a part. NOAA is one of the three federal entities that share responsibility for implementing the MMPA. It is responsible for the protection of whales, dolphins, porpoises, seals, and sea lions. However, this Act does not provide the authority for NOAA to use volunteers to assist in meeting its MMPA responsibilities.

- 9. National Environmental Education Act (NEEA):** This Act requires EPA to provide national leadership to increase environmental literacy. EPA established the Office of Environmental Education to implement this program. It states, “The Federal Government, acting through the Environmental Protection Agency, should work with local education institutions, State education agencies, not-for-profit educational and environmental organizations, noncommercial educational broadcasting entities, and private sector interests to support development of curricula, special projects, and other activities, to increase understanding of the natural and built environment and to improve awareness of environmental problems.” This Act does not provide the authority for the EPA or NOAA to use CSC project volunteers to assist in meeting the requirements of the Act. However, it provides another example of the language used to provide the authority to use volunteers for a specific purpose. It states, “The Administrator may accept, without regard to the civil service classification laws, rules, or regulations, the services of the Foundation, the Board, and the officers and employees of the Board, without compensation from the Environmental Protection Agency, as volunteers in the performance of the functions authorized herein, in the manner provided for under this section.”

- 10. National Environmental Policy Act of 1970 (NEPA):** This Act requires federal agencies to assess the environmental effects of their proposed actions prior to making decisions and includes the following (see 42 U.S.C. 4345). However, NEPA does not provide the authority for federal agencies to use volunteers to assist in assessing those effects.
- 11. National Marine Sanctuaries Act of 1972 (NMSA):** This Act authorizes the Secretary of Commerce to designate and protect areas of the marine environment with special national significance due to their conservation, recreational, ecological, historical, scientific, cultural, archeological, educational, or esthetic qualities as national marine sanctuaries. The primary objective of the NMSA is to protect marine resources, such as coral reefs, sunken historical vessels or unique habitats. However, NMSA does not provide NOAA the authority to use volunteers to assist in meeting its responsibilities under the Act.
- 12. Ocean and Coastal Mapping Integration Act (OCMIA):** This Act requires the establishment of a program to develop a coordinated and comprehensive Federal ocean and coastal mapping plan for the Great Lakes and coastal state waters, the territorial sea, the exclusive economic zone, and the continental shelf of the United States that enhances ecosystem approaches in decision-making for conservation and management of marine resources and habitats, establishes research and mapping priorities, supports the siting of research and other platforms, and advances ocean and coastal science. However, this Act does not provide NOAA the authority to use volunteers to assist in meeting these requirements.
- 13. Organic Act (OA):** With the Organic Act of October 1, 1890, all weather functions were transferred to a new agency called the Weather Bureau. Among other duties, one of the primary mandates of the Organic Act was the volunteer weather observer program. Although 15 USC Ch. 9 (National Weather Service) includes requirements and authorities, it does not include that mandate. However, it does state, “The National Integrated Drought Information System may—... utilize and support, as appropriate, monitoring by citizen scientists, including by developing best practices to facilitate maximum data integration” (see §313d(c)). In addition, it states, “The Secretary of Commerce may use funds otherwise available for conducting weather observations to strengthen the Cooperative Weather Observer Program and encourage public participation in the program. The Secretary may— (1) provide distinctive insignia or paraphernalia to Cooperative Weather Observers; and (2) make awards of nominal value to recognize continued participation in the program by observers or to recognize outstanding achievements by such observers or groups of observers ...” (see §325).
- 14. Weather Research and Forecasting Innovation Act of 2017 (WRFIA):** This Act, requires NOAA to conduct a program to develop improved understanding of and forecast capabilities for atmospheric events and their impacts, placing priority on developing more accurate, timely, and effective warnings and forecasts of high impact weather events that endanger life

and property. However, this Act does not provide NOAA the authority to use volunteers to assist in meeting its requirements.

15. 15 USC Ch. 9: (National Weather Service): This Chapter identifies the duties of Secretary of Commerce with respect to the Weather Service, where those duties include:

1. forecasting the weather;
2. issuing storm warnings;
3. displaying weather and flood signals for the benefit of agriculture, commerce, and navigation;
4. gauging and reporting on rivers;
5. maintaining and operating seacoast telegraph lines;
6. collecting and transmitting marine intelligence for the benefit of commerce and navigation;
7. reporting of temperature and rain-fall conditions for the cotton interests; 8) displaying frost and cold-wave signals;
8. distributing meteorological information in the interests of agriculture and commerce; and
9. taking such meteorological observations as may be necessary to establish and record the climatic conditions of the United States.

As noted above, this Chapter authorizes the National Integrated Drought Information System to, “utilize and support, as appropriate, monitoring by citizen scientists, including by developing best practices to facilitate maximum data integration.” In addition, it provides NOAA the authority to strengthen the Cooperative Weather Observer Program and encourage public participation in the program by (1) providing distinctive insignia or paraphernalia to Cooperative Weather Observers and (2) making awards of nominal value to recognize continued participation in the program by observers or to recognize outstanding achievements by such observers or groups of observers.

C. Executive Orders and Federal Policies and Plans That Support NOAA’s Use of CSC Projects to Meet Its Mission

1. **EO 12866 (Regulatory Planning and Review):** This EO provides that significant regulatory actions be submitted for review to OMB. It states that in deciding whether and how to regulate, agencies should assess all costs and benefits of available regulatory alternatives, including the alternative of not regulating. Costs and benefits shall be understood to include both quantifiable measures (to the fullest extent that these can be usefully estimated) and qualitative measures of costs and benefits that are difficult to quantify, but essential to consider. Further, in choosing among alternative regulatory approaches, agencies should select those approaches that maximize net benefits (including

potential economic, environmental, public health and safety, and other advantages; distributive impacts; and equity), unless a statute requires another regulatory approach [Sec. 1(a)].

2. **EO 12898 (Environmental Justice):** This EO directs federal agencies to: (1) identify and address the disproportionately high and adverse human health or environmental effects of their actions on minority and low-income populations, to the greatest extent practicable and permitted by law; (2) develop a strategy for implementing environmental justice; and (3) promote nondiscrimination in federal programs that affect human health and the environment, as well as provide minority and low-income communities access to public information and public participation. In addition, it established an Interagency Working Group (IWG) on environmental justice chaired by the EPA Administrator and includes the heads of 11 departments or agencies and several White House offices. EPA's Office of Environmental Justice (OEJ) works to protect human health and the environment in communities overburdened by environmental pollution by integrating environmental justice into all EPA programs, policies and activities.
3. **EO 13985 (Advancing Racial Equity and Support for Underserved Communities Throughout the Federal Government):** This EO calls on agencies to advance equity through identifying and addressing barriers to equal opportunity that underserved communities may face due to government policies and programs.
4. **EO 14008 (Tackling the Climate Crisis at Home and Abroad):** This EO places the climate crisis at the forefront of foreign policy and national security planning. It states, "The United States will work with other countries and partners, both bilaterally and multilaterally, to put the world on a sustainable climate pathway" and "move quickly to build resilience, both at home and abroad, against the impacts of climate change that are already manifest and will continue to intensify according to current trajectories."
5. **GAO Report 17-507. Open Innovation: Executive Branch Developed Resources to Support Implementation, but Guidance Could Better Reflect Leading Practices. June 2017:** This report states, "Open innovation involves using various tools and approaches to harness the ideas, expertise, and resources of those outside an organization to address an issue or achieve specific goals. Agencies have frequently used several open innovation strategies—crowdsourcing and citizen science, ideation, open data collaboration, open dialogues, and prize competitions and challenges—to engage the public. Staff from the General Services Administration (GSA), Office of Management and Budget (OMB), and Office of Science and Technology Policy (OSTP) developed resources to support agency use of these strategies."

6. **2013 Second Open Government National Action Plan:** This plan encourages Federal Agencies to harness the ingenuity of the public by accelerating and scaling the use of open innovation methods such as citizen science and crowdsourcing:
https://obamawhitehouse.archives.gov/sites/default/files/docs/us_national_action_plan_6p.pdf
7. **2015 Third Open Government National Action Plan:** In September 2015, the Office of Science and Technology Policy encouraged Federal science agencies, in designing citizen science and crowdsourcing projects, to take steps to ensure that datasets, code, applications, and technologies generated by such projects are transparent, open, and freely available to the public. https://obamawhitehouse.archives.gov/sites/default/files/microsites/ostp/final_us_open_government_national_action_plan_3_0.pdf
8. **OMB Memo M-11-07. Facilitating Scientific Research by Streamlining the Paperwork Reduction Act Process. December 9, 2010:** This memo was, in part, intended to address identified impediments to open government and to the use of new technologies. Citizen science and crowdsourcing projects often use new technologies to contribute to open government.
9. **OMB Memo M-10-06. Open Government Directive. December 8, 2009:** This memo requires the Deputy Director for Management at OMB, the Federal Chief Information Officer, and the Federal Chief Technology Officer to establish a working group that focuses on transparency, accountability, participation, and collaboration within the Federal Government. Among other things, that working group is to be a forum to share best practices on innovative ideas to promote participation and collaboration, including how to experiment with new technologies, take advantage of the expertise and insight of people both inside and outside the Federal Government, and form high-impact collaborations with researchers, the private sector, and civil society. Citizen science and crowdsourcing are included in the topics of that forum.
10. **OMB Memo M-15-16. Multi-Agency Science and Technology Priorities for the FY 2017 Budget. July 9th, 2015:** With this memo, “Agencies are encouraged to use approaches to foster innovation such as Grand Challenges, incentive prizes, citizen science, and collaboration with members of the Maker Movement”, which is a cultural trend that places value on an individual's ability to be a creator of things as well as a consumer of things.
11. **NOAA FY22-26 Strategic Plan**

The three overarching priorities in the NOAA Strategic Plan are:

1. Building a Climate Ready Nation by establishing NOAA as the primary federal authoritative provider of climate information and services in the whole-of-government response to tackling the climate crisis;
2. Integrating equity into our core operations and
3. Promoting economic development while maintaining environmental stewardship with a focus on advancing the New Blue Economy.

The Strategic Plan includes several Strategic Objectives for each of those overarching priorities. As noted below, there is a link between CSC and most of those Strategic Objectives. Below, we list only the Strategic Objectives and related actions with a clear link to CSC.

BUILDING A CLIMATE READY NATION

STRATEGIC OBJECTIVE 1.1: Enhance Service Delivery to Partners

CSC is a method of continuous engagement with partners and CSC projects can provide some of the data and insights needed to do the following effectively, efficiently and equitably:

- 1.1.1: Improve Continuous Engagement with Partners

STRATEGIC OBJECTIVE 1.2: Improve Environmental Predictions and Projections

CSC projects can provide some of the data and insights needed to do each of the following effectively, efficiently and equitably:

- 1.2.1: Improve Weather, Water and Climate Predictions and Projections
- 1.2.4: Enhance Monitoring and Modeling for Mitigation and Adaptation Strategies
- 1.2.5: Build Out an Integrated Climate and Ocean Modeling System
- 1.2.6: Enhance Ecological Forecasting of NOAA Trust Resources

STRATEGIC OBJECTIVE 1.3: Advance Integrated Breakthrough Climate Research

CSC projects can provide some of the data and insights needed to do each of the following effectively, efficiently and equitably:

- 1.3.1: Mature World-Class Next-Generation Earth System Models
- 1.3.2: Strengthen Capacity for Social Science Research
- 1.3.3: Advance cutting-edge integrated research to operations.

STRATEGIC OBJECTIVE 1.5: Enhance Comprehensive Observations and Monitoring Systems

CSC projects can provide some of the data and insights needed to do each of the following effectively, efficiently and equitably and/or an effective method for doing some of them:

- 1.5.1: Improve Local/In-Situ Distributed Observations

1.5.3: Expand Commercial Partnerships and New Technology

1.5.4: Improve Common Source Data Integration and Common Ground Services

MAKE EQUITY CENTRAL TO NOAA'S MISSION

STRATEGIC OBJECTIVE 2.2: Support Underserved and Vulnerable Communities

CSC projects can provide some of the data and insights needed to do each of the following effectively, efficiently and equitably and/or an effective method for doing some of them:

2.2.1: Launch National Integrated Community Pilot Projects

2.2.3: Design Easy-to-Use Tools and Services

2.2.4: Develop New Community Engagement Approaches

2.2.5: Strengthen Social Science and Evaluation Capacity

In addition, CSC is a community engagement approach.

ACCELERATE GROWTH IN AN INFORMATION-BASED BLUE ECONOMY

STRATEGIC OBJECTIVE 3.1: Improve Ocean-Related Data and Data Access

CSC projects can provide some of the data and insights needed to do each of the following effectively, efficiently and equitably:

3.1.1: Promote the Development of the Ocean Enterprise

3.1.2: Innovate Approaches for Data Collection and Forecasting

3.1.3: Increase Stakeholder Engagement

In addition, CSC is an innovative approach for data collection and an effective method of increasing stakeholder engagement.

STRATEGIC OBJECTIVE 3.2: Strengthen Established Sectors of the Blue Economy

CSC projects can provide some of the data and insights needed to do each of the following effectively, efficiently and equitably:

3.2.1: Improve Adaptive Fisheries Management

3.2.2: Expand Sustainable Marine Tourism and Recreation Opportunities

3.2.3: Support Sustainable Development of Offshore Renewable Energy

3.2.4: Advance NOAA's Contribution to a Safe and Efficient Marine Transportation System

STRATEGIC OBJECTIVE 3.3: Improve Resilience of Coastal Communities and Economies

CSC projects can provide some of the data and insights needed to do each of the following effectively, efficiently and equitably:

- 3.3.1: Advance Forecast Effects of Sea-Level Rise and Coastal Inundation
- 3.3.2: Reduce Risk from Coastal and Environmental Hazards
- 3.3.3: Support Responsible Coastal Development and Management

STRATEGIC OBJECTIVE 3.4: Protect and Restore Marine Life and Ocean, Coastal and Great Lakes Ecosystems

CSC projects can provide some of the data and insights needed to do each of the following effectively, efficiently and equitably:

- 3.4.1: Recover and Conserve Protected Species
- 3.4.2: Protect, Conserve and Restore Coastal, Ocean and Great Lakes Lands, Waters and Resources
- 3.4.3: Advance Science for Stewardship and Conservation