

## SAFMC Citizen Science Program Evaluation

4/30/2020 - DRAFT

### Background

The Citizen Science Program goals were developed by the Operations Committee in August 2018 and adopted by the SAFMC in December 2018. Based on these goals, staff, working with Rick Bonney (Cornell Lab of Ornithology) and Jennifer Shirk (Citizen Science Association), developed draft Program objectives that were initially shared with Operations Committee members as part of their October 2019 meeting materials.

Based on discussion on the October 2019 Operations Committee webinar, a google doc was created with Program goals and draft objectives. Committee members were asked to provide edits/feedback on the draft objectives and brainstorm potential indicators of success within the google doc. Staff, working with Rick Bonney and Jennifer Shirk, reviewed and incorporated Committee feedback into the draft below in advance of the Jan 24 webinar.

During the Jan 24 meeting, the Committee reviewed and edited Program goals and objectives. After the webinar, Committee members were asked to review and edit the draft objectives and brainstorm potential strategies (e.g. steps to meet objectives) via another google doc by Monday, March 16. Staff incorporated feedback from members into the document and provided it to the Committee in advance of their March 30 webinar.

An updated version of this document, incorporating feedback from the March 30 webinar, was provided to the Committee on April 20 via another google doc. Committee members are asked to review and edits this document by Mon, Apr 27. Staff, working with Rick Bonney, reviewed and incorporated Committee feedback into the draft below in advance of the May 5 webinar. Language highlighted in yellow indicates suggested changes to the goals and/or objectives that were made after the Committee provided feedback in the google doc.

## **SAFMC Citizen Science Program**

**Vision Statement:** Produce data that will support and improve fisheries management

**Mission Statement:** Improve information for fisheries management through collaborative science

**GOAL 1: Design, implement, and sustain a program framework to guide the development of projects that support fishery management decision making.**

### *Draft Objectives*

- OBJ 1: Establish organizational infrastructure to provide program administration and oversight.
  - Create a Council Citizen Science Committee to provide overall program direction and authority.
  - Create a Citizen Science Program Advisory Panel to advise program policies related to scientific goals and integrity and operational processes.
  - Create a Citizen Science Operations Committee to develop and review program policies, procedures, goals, and objectives.
  - Create a Citizen Science Projects Advisory Committee to identify research needs across fishery management plans, assist with volunteer engagement strategies, and serve as outreach ambassadors for the Program.
  - Appoint a Citizen Science Advisory Panel Pool with broad interest and expertise in areas of program development.
  - Assign Action Teams as needed from the Citizen Science Advisory Panel pool to assist in development of program framework and resources.
  
- OBJ 2: Develop program procedures, policies, and tools.
  - Create program Standard Operating Procedures and Practices (SOPPs). Establish and maintain a citizen science research needs prioritization process.
  - Implement the above process to update the citizen science research priorities every two years.
  - Create a Citizen Science Project Endorsement Program.
  - Develop support resources (best practices, templates, etc.) to assist in development of citizen science projects.
  - Produce Citizen Science Program communication and outreach plans to include routine program communication, program website, social media development, program support resources, and annual report.
  - Develop program evaluation process.
  
- OBJ 3: Create a funding strategy that is adaptable to changing circumstances and needs.
  - Develop and regularly review an inventory of project and program funding opportunities (i.e. requests for proposals).
  - Generate a matrix of funding models (e.g. public-private partnerships, crowdfunding) for program and project needs.

## **GOAL 2: Facilitate development of individual projects to address specific research priorities.**

### *Draft Objectives*

- OBJ 1: Publish and broadly disseminate the SAFMC's citizen science research priorities.
  - Post priorities to the program webpage.
  - Share priorities with Council Advisory Panels, SSC, and SEP.
  - Distribute priorities via an annual report.
  
- OBJ 2: Implement the SAFMC's Citizen Science Project Endorsement Program.
  - Develop a launch strategy.
  - Promote/announce development of the Program.
  - Establish an ad-hoc review committee.
  
- OBJ 3: Provide project support resources (best practices, templates, etc.).
  - Publish resources on the program webpage.
  - Review and update support resources, as needed.
  - Distribute resources to program partners annually via Council communication outlets (e.g. newsletter, social media).
  
- OBJ 4: Encourage collaboration by diverse teams of stakeholders (scientists, fishermen, managers, etc.) to develop projects.
  - Require internal Council citizen science projects to use a Design Team with diverse expertise during project development and implementation.
  - Help identify and connect stakeholders for project development (e.g. matchmaking).
  - Develop and implement a Citizen Science Project Idea Portal.
  
- OBJ 5: Should there be an objective about providing guidance for project development?

**GOAL 3: Ensure that data collected by projects are accessible, robust, and fit for purpose.**

*Draft Objectives*

- OBJ 1: Implement program guidelines that address data management, standards, quality, and accessibility.
  - Ensure project support resources include clear data guidelines.
  - Share data guidelines with all projects the Program supports and/or endorses.
  - Develop minimum data standards that projects must meet to be supported/endorsed by the program.
  - Develop draft data accessibility agreements and incorporate into project resources available online.
  
- OBJ 2: Review project results to ensure that data meet intended needs.
  - Develop and implement a process to review projects.
  - Share summary results of review with Citizen Science Committee to publicly highlight how data meet Council needs.
  
- OBJ 3: Document the contribution of citizen science projects and data to specific SAFMC research priorities and science and management decision making.
  - Develop and maintain project inventory that includes, project research priority and how/if data have been used in science and management.
  - Distribute summary of project inventory highlighting data usage in annual report.

## **GOAL 4: Foster mutual learning, collaboration, and program engagement.**

### *Draft Objectives*

- OBJ 1: Promote opportunities for learning among diverse constituents.
  - Support and encourage development of projects on a range of research priorities.
  - Utilize ideas collected via the Project Idea Portal & matchmaking service to promote mutual learning.
  - Host open discussion (e.g. webinars) with interested stakeholders to share project results, lessons learned, what stakeholders/project participants have learned from each other, etc.
  
- OBJ 2: Foster existing partnerships and develop new partnerships to support both program and project goals.
  - Create partnership development best practices.
  - Encourage clear lines of communication between partners.
  - Conduct informal reviews/evaluations of partnerships.
  - Explore broader citizen science platforms (e.g. Scistarter) for partnerships that help connect volunteers to projects.
  
- OBJ 3: Improve trust among scientists, managers, and fishermen.
  - Encourage transparent communication among stakeholders.
  - Manage expectations for programmatic and project level activities.
  
- OBJ 4: Engage new categories of stakeholders that are not typically involved in the Council process.
  - Identify approaches to promote the program and individual projects outside of the Council's normal communication methods.
  - Develop a mechanism to track engagement across stakeholder categories.
  
- OBJ 5: Develop Citizen Science Program volunteer engagement (recruitment, training, retention) strategies, products, and activities using best practices outlined by the Citizen Science Action Teams.
  - Develop communication tools (e.g. Citizen Science Corner in SAFMC newsletter, #CitSciFri, annual report) to maintain volunteer awareness of program and project activities.
  - Develop a method and approach to better understand the interests, capacity, and expectations of potential volunteers.
  - Design and implement a volunteer recognition program.
  - Compile available resources on volunteer engagement.
  - Develop a matrix for determining what type of volunteer training and delivery approach is needed for different levels of projects.
  - Develop a list of potential and appropriate volunteer incentives.
  - Identify appropriate options for the program to share project data results and present data visualizations to volunteers.

## DRAFT INDICATORS OF SUCCESS

- Organizational infrastructure was developed to include (insert infrastructure components here) and meet, as needed.
- SOPPS adopted by Council and updated as needed.
- Research Priorities updated every two years using process identified in SOPPS.
- Number of policies and procedures that have been created and have been used # times to create # of projects and # of research priorities.
- Number of downloads of the SOPPS and/or other project support resources
- Number of external funding sources/partners (i.e. non-SAFMC budget -- whether FIS, SeaGrant, NGO, etc.)
- Number of citizen science projects that have been developed.
- Number of stakeholders involved in development of citizen science projects. Stakeholders are from # different organizations such as (list affiliations).
- Citizen science projects have contributed to (insert type of decision making component) and used to make management decisions for X species/complex.
- Number of projects have been evaluated for effectiveness. Effectiveness is shown by (insert measure showing how the project has been effective in management decisions).
- Number of new partnerships that were created. Partners include (list of partner organizations or types of partners).
- Number of partners that continue to be part of the program. Partners include (list of partner organizations or types of partners).
- Number of new stakeholders that were engaged. These stakeholders come from # of different organizations including (list affiliations).
- Number of volunteers who were recruited for the program.
- Number of volunteers who were trained through the program. Number of projects volunteers participated in.
- Number of volunteers retained in the program. Number of projects volunteers participated in.
- Number of people reached through communication and outreach plan. Number of people who were engaged or responded to communication and outreach plan by (list type of engagement).
- Number of visits to Program webpages
- Number of presentations and/or requests for presentations
- Citizen Science Corner article included in quarterly newsletters
- Citizen Science Program Annual Report completed