SAFMC Citizen Science Program: Evaluation Planning Update Rick Bonney 5/18/20

At the December 2019 Council meeting, we began a discussion of evaluation of the SAFMC Citizen Science Program (CSP). We pointed out that a program evaluation begins by articulating program goals, i.e., visionary statements of what a program hopes to achieve. These are followed by development of objectives, which are specific and measurable steps or actions that can be taken to achieve those goals. Finally, "indicators of success" are needed to show whether and how the objectives are being met. These indicators must be realistic, feasible, and valid, and identifying appropriate indicators is one of the most challenging steps in designing a program evaluation.

At the time of the meeting, the CSP had developed and formally adopted program goals. The program also had been pursuing numerous objectives in service of those goals, although the objectives had not yet been written out. And no specific indicators of success had been developed.

Since that time, the CSP Operations Committee has met several times to develop formal program objectives as well as draft indicators of success. These meetings have led to rich discussion about the program's vision, aspirations, and measurable outcomes, which are reflected in the attached document.

Please note a few things while perusing this document.

First, the Committee decided that the original goals 4 and 5 would be better articulated by combining them into one shared goal focused on participant engagement. That rewritten goal reads "Foster mutual learning, collaboration, and program engagement."

Second, each of the four goals now has from three to five measurable objectives.

Third, the Committee added a step into the process, specifically, articulation of specific strategies that should be undertaken to achieve the objectives. Many of these strategies are under way (and have been since the program began). Others are aspirational. For example, Standard Operating Procedures and Practices for the Program have been developed, along with a research needs prioritization process (Objective 2, Goal 1). However, "Develop a method and approach to better understand the interests, capacity, and expectations of potential volunteers" has not. Doing this would require funding beyond which the program currently has available.

Fourth, the Committee has added several draft Indicators of Success, presented at the end of the document.

Finally, note that Indicators of Success can be placed into two major types. First are "outputs," which are easily documented and counted achievements, i.e., "number of downloads of the SOPPS" or "Number of volunteers recruited for the program." Such outputs can be collated by program staff and placed on a dashboard to keep tabs on the program's progress.

The second category of indicators are much harder to measure. These are "outcomes," which are measures of what, for example, a program participant has learned, or a degree to which a program participant has enhanced their trust. Determining program outcomes, often referred to as "summative evaluation," is usually best achieved in partnership with somebody trained in program evaluation. As a starting point, evaluation of outcomes requires collection of baseline data about each of the audiences involved in the program.

At the June council meeting, we will review the goals, objectives, strategies, and indicators for the Citizen Science Program that have been developed by the Operations Committee. We also plan to present examples of outcomes, or summative evaluation from other citizen science programs as illustrations of the kinds of evidence for increases in knowledge or changes in attitudes and behavior that can be measured among program participants. Resources permitting, we hope to conduct similar summative evaluation of the Council Program over the next few years.