

San Francisco Bay Restoration Authority Advisory Committee

**Report of the Ad Hoc Subcommittee on Performance Measures:
Summary of Progress, Preparation of Performance Measures Table and Recommendations for
Annual Report Format**

August 22, 2018

Roger Leventhal on Behalf of the Ad Hoc Subcommittee on Performance Measures¹

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With staff support provided by Jessica Davenport, SFBRA Project Manager

This memo presents work of the ad hoc subcommittee on performance measures under the Advisory Committee (AC) of the San Francisco Bay Restoration Authority (SFBRA). This subcommittee took on the following tasks:

- Assess and make recommendations to the Governing Board on how best to track progress toward achieving the goals stated in the SFBRA enabling legislation and Measure AA;
- Prepare a table of recommended performance measures for review and endorsement by the full AC;
- Make recommendations on both performance measures and qualitative information to include in annual reports on work funded by Measure AA; and
- Identify additional performance measures that will need more work to develop.

Tracking and reporting on the work accomplished using Measure AA funds is important to evaluate the progress of the program and to identify areas in need of improvement. It is also important to report out to taxpayers funding the measure how well the program is meeting its stated objectives.

The ad hoc subcommittee engaged in conference calls and email exchanges to develop the table of recommended performance measures (Table 1). There was lively debate over many issues and differing viewpoints on approaches to meeting the goals of the subcommittee. The subcommittee's work provided the basis for the full AC to make a recommendation to the Governing Board on performance measures.

1. Goals and Caveats for Development of Measure AA Performance Measures

During its work, the subcommittee identified goals and caveats related to the development of performance measures for the Measure AA grant program, which are discussed below. Gaining clarity on these issues aided in the development of the table in the following section.

Goals

1. ***Develop Clear Metrics and Require Grantees to Report Them.*** In order to report on the progress of the grant program over time, the staff will need to obtain information about various aspects of projects in consistent units, such as acres of habitat and miles of trails. This will enable the staff to report on cumulative totals, for example, to assess progress after five years of grant making.

¹ Ad hoc subcommittee members included Brian Benn , Erika Castillo , Francesca Demgen , Letitia Grenier Zahra Kelly, Erika Powell, and Ameer Raval . For affiliations and expertise, see <http://www.sfbayrestore.org/sf-bay-restoration-authority-advisory.php>.

- 2. *Develop the First Iteration of Performance Measures for the First Year of the Program While Making Recommendations for the Development of Performance Measures Needed in Future Years.*** As described in more detail below, there were many issues identified by the ad hoc subcommittee that were not quickly or easily resolved. Given the nature of these identified issues and the need to produce the first draft of performance measures table to inform for the first annual report due in Fall 2018, the ad hoc subcommittee proposed that the AC focus on the table of measures contained within this memo. After discussion, the AC reached consensus on performance measures to recommend to the Governing Board and SFBRA staff. The AC is also recommending that staff continue to develop those performance measures that will require additional work, possibly assisted by outside experts.

Caveats

- 1. *Tidal Wetland Habitat Restoration Metrics Are Being Developed by Another Group.*** The subcommittee members were initially interested in developing metrics to evaluate the progress of wetland habitat restoration projects funded by Measure AA. However, a parallel effort is currently underway to develop such metrics as part of a Wetlands Regional Monitoring Program for San Francisco Bay. The project manager, Heidi Nutters of the San Francisco Estuary Project, attended a subcommittee conference call to explain the purpose, participants, and timeline for that project. She noted that a group of managers and scientists will develop management questions, which will be translated into monitoring questions. This will inform the development of indicators, metrics and methods by scientists. A steering committee will review and advise on the science content, recommend a governance structure, develop a budget and identify potential funding sources for the program. The ad hoc subcommittee will not duplicate this work. The subcommittee will continue to coordinate with this project, as well as others as described in more detail below.
- 2. *Measure AA Requirements Should Not Significantly Increase Project Monitoring and Reporting Costs.*** Monitoring and reporting can be very expensive. The ad hoc subcommittee members tended to support the goal that we should not add expensive and/or complex monitoring requirements onto applicants that may not only be difficult to achieve but also would require additional AA funds to achieve. Subcommittee members tended to support the idea of using the already required project monitoring by the permitting agencies wherever possible. However, there was consensus that where easily and low cost trackable and reportable monitoring can be performed by projects, that staff work with project applicants to ask them to report in a consistent reporting format to allow for ease of folding up results into the annual report and cumulative reports on multiple years of work. (See Goal 1, above.)
- 3. *It Will be Difficult and Potentially Expensive to Develop and Track Metrics Related to Every Stated Goal in the Measure AA Ballot Language – At Least Initially.*** This was perhaps one of the more contested and open to debate potential limitations to the proposed program. Measure AA contains many stated goals across a number of areas. Many if not most of them are fairly easily and relatively inexpensively tracked and reported. However, there are some goals (i.e. many of those involving water quality) that could be much more difficult and expensive to monitor and also to even decide what is the best metric to use. For example, a metric for trash removal that reported out as “tons of trash” removed might discriminate against a project that prevented trash from entering the system in the first place, a much better goal. However, if the applicant proposes to remove trash and to measure the amount, and the project is funded, then a standard unit can be selected and future projects involving trash removal can be required to use the same units of measure.

Also, there are some goals that are regional in nature and not the direct result of any individual projects (e.g. trends in water quality) and are thus subject to broader forces in the Bay. For AA monitoring to ask projects to track and report out some of the goals could be potentially complex and expensive and may show success or failure of parameters that may not be legitimately the result of AA funding. The goals are important, but the ad hoc subcommittee did not feel like there was sufficient time and/or expertise in the group to resolve these issues. Section 3 below contains a fuller description of these goals and possible next steps.

Note that for many types of programs that use natural systems for water quality treatment, such as green stormwater infrastructure to treat stormwater runoff, there is no requirement to measure pollutant loads. Rather, there is a “treatment by design” approach that says if the facilities are designed correctly and are maintained and working, the regulatory agencies assume treatment is occurring thereby, saving applicants from costly field measurements. This same approach may be suitable for some AA funded projects as well.

4. **Measure AA Staff Time is Limited** – Measure AA limits administrative cost to no more than 5% of funding. Therefore, by design, Measure AA staff resources are limited and they also have numerous duties already and do not have the capacity to track and roll up large amounts of data across a range of measures. Therefore, any monitoring program has to acknowledge the current limitations in staffing. In addition, some monitoring is extremely technical in nature and may require expertise in literally dozens of scientific fields from biology to chemistry to physical processes in wetlands and flood control) and would therefore, require a number of technical staff to accomplish – well beyond the current capabilities of existing staff.

5. **Some Monitoring Results May Not be Available for Several Years Following Project Implementation** – The results for some monitoring will require construction of the project and follow-up monitoring for several years and then analysis of results by experts. This limitation adds to the rationale for phasing the development of the performance measures program.

2. Summary of Performance Measures Table

Table 1 below contains the performance measures table with the metrics we believe are achievable for the Fiscal Year 2017-2018 annual report (as well as future annual reports). The list of performance measures is expected to be expanded later as the metrics described in Section 3 below are developed. As described in the table, we propose that the following metrics are easily trackable and reportable for at least years one through five of the project:

Table 1 – Performance Measures Table

<u>Performance Metrics</u>	<u>Units</u>	<u>Comments</u>
Types of Organization Funded		
Public Agency	# projects	
Non-Profit Organization	# projects	
Private For-Profit Entity	# projects	
Public-Private Partnership	# projects	

Multi-Agency Partnership or Joint Powers Authority	# projects	
Types of Projects Funded		
Habitat only projects	# projects/ # dollars *	
Habitat and public access projects	# projects/ # dollars *	
Habitat and flood protection projects	# projects/ # dollars *	
Habitat and flood protection and public access projects	# projects/ # dollars *	
Pilot or demonstration projects	# projects/ # dollars *	Projects that are by design small in size but demonstrate restoration approaches of value beyond their immediate project limits
Special projects (permitting facilitation or monitoring)	# projects/ # dollars *	
Total of All Projects Funded	# projects / # dollars *	100% of project types
Project Phases Funded		
Pre-Construction Only Projects	# projects/ # dollars *	Can include planning, CEQA, design, permitting
Construction Projects	# projects/ # dollars *	Can include other phases, too, but must include construction
Post-Construction Only Projects	# projects/ # dollars *	Can include maintenance and monitoring including periodic photos
Total of All Project Phases Funded	# projects / # dollars *	100% of project phases
Habitat Restoration and Enhancement		
Number of plans completed	# plans	This is used to measure outcomes of projects that involve funding the development of a plan.
Specific species targeted for restoration	# list of specific target species for restoration	Habitat projects are usually designed to focus on specific species of concern.

Number of acres of habitat to be constructed divided by type (see Grant Program Guidelines for definitions of eligible habitat categories)	# acres	To avoid double counting acres of habitat, a project that involves developing a plan for habitat restoration will be counted as 1 plan under “number of plans completed” above, whereas a project that involves construction will be measured by the number of acres of habitat to be constructed.
• Subtidal habitats	# acres	
• Baylands habitats	# acres	
• Upland habitats providing transition habitat and/or migration space	# acres	
Benefits to Economically Disadvantaged Communities		
Percentage of projects providing benefits to economically disadvantaged communities	percentage of total projects	The definition of EDCs adopted by the Governing Board will be used to determine which projects qualify.
Youth Involvement		
Percentage of projects with significant youth involvement component	percentage of total projects	“Significant” to be determined by staff
Number of youth engaged	# youth	Youth includes young adults, up to age 25. Youth engagement includes job training, as well as volunteer work. There may be some overlap with the metric ‘Number of unique volunteers participating’.
Public Access		
Trail miles planned or constructed	# trail miles	Divide into miles of Bay Trail or miles other trails
Water trail sites planned or constructed	# water trail sites	
Public access enhancements	# of enhancements	Includes trail improvements that enable access for people with disabilities, interpretative displays, benches, trash cans, and other public access enhancements.

Geographic Distribution of Funds		
Dollars allotted to each region	# dollars	
Dollars allotted to each county	# dollars	
Contributions / Funds Leveraged **		
Total dollars “leveraged” by all projects funded that year	# dollars	
Private contributions	# dollars	
Other government contributions	# dollars	
Volunteer Involvement		
Number of volunteer hours	# hours	
Number of unique volunteers participating in restoration	# volunteers	
Administrative Costs		
Program administrative costs	% of total grants awarded	Enabling legislation limits admin costs to 5% of total spent over the life of the program

* Total nominal dollars granted to corresponding projects.

** All non-Measure AA monetary contributions; include the value of non-monetary contributions if values are provided by contributors. “Leverage” refers to grant funds that are a basis for matching or other contributions.

3.0 Measures and Metrics Requiring Further Development

The measures described in this section may be more difficult and more expensive to track and report. As previously indicated, some of the measures may reflect influences that are beyond the control of Measure AA funding which is on a project by project level.

Flood Risk Reduction Benefits – This measure would track how well the project achieves its stated flood risk reduction benefits. Since flood risk reduction can be tracked using many different metrics (i.e., acres of reduced flooding, protection from 1% annual exceedance probability (AEP) event, reduction in storm-related monetary losses) this category needs further work to develop some common metrics that can be tracked across many projects without excessive costs.

Comparison of Intended Benefits to Actual Benefits – This measure would track how well the project delivered on the intended versus in its project proposal, i.e., the grant application. Since this requires implementation and actual monitoring data, it is anticipated that this metric would not likely be added until sometime past Year 5 at the earliest and more likely later in the program like at Year 10 for many metrics as natural systems can take years to develop. For planning level projects, performance measures may include production of plans or acquisition of permits.

Benefit to Region's Economy – Although a stated goal, this metric may be difficult to measure as direct result of AA funding. It is likely that an expert in economics may be required to provide advice and input in how to structure this performance measure. Job creation is a potential metric.

Cost-Effectiveness and Efficiency of Funds Expended – Like the regional economic benefit above, evaluating the cost-efficiency is difficult in practice. A simple metric like dollars per acre isn't always meaningful since costs can vary for a number of reasons and wetlands have different values that are difficult to normalize for comparison. It is likely that an expert in economics may be required to provide advice and input in how to structure this performance measure. Alternatively, the AC with support of staff could review the funded projects' total nominal costs by year per acre (or per other units measured) and develop project categories for potentially relevant comparison over time. We could also look at responses to application section I, questions 9 and 10 regarding measuring success, and barriers/risk. Evaluation of this information could help guide potential next steps toward structuring this performance measure.

Habitat Quality of Wetlands Restored or Enhanced – There are a number of performance measures related to the quality of the constructed habitat. These include responses across a number of scientific areas:

1. Physical processes (tidal channel formation, sedimentation)
2. Wildlife response (especially threatened and endangered species and other species of concern)
3. Vegetation response
4. Vector control & mosquito abatement

Local and Regional Water Quality Benefits – Measure AA describes several water quality goals, from trash removal to pollution reduction. A measure related to trash removal and shoreline cleanup should be developed based on what applicants propose to measure. The Restoration Authority should create a standard metric after funding a few projects that have this component. Since other metrics for water quality benefits may be more complicated and regional in extent, we propose working with other programs like the Wetlands Regional Monitoring program (WRMP) to utilize their expertise to develop these measures. More details on the WRMP and other regional programs is in the next section.

4.0 Coordination with Other Regional Monitoring Programs

As described above, there are other ongoing programs around San Francisco Bay involved in the monitoring of wetland restoration projects. These other programs provide expertise in performance monitoring of these types of projects that should be coordinated and integrated in with the SFBRA performance tracking work to avoid duplicative and/or contradictory monitoring and reporting and to better leverage monitoring dollars. Two of the major efforts for monitoring and reporting are as follows:

Wetlands Regional Monitoring Program (WRMP)

The U.S. Environmental Protection Agency provided a grant to the San Francisco Estuary Partnership (SFEP) and two other partners (the San Francisco Estuary Institute and the San Francisco Bay National Estuarine Research Reserve) to develop the WRMP. The SFEP project manager Heidi Nutters joined the ad hoc subcommittee on one of the conference calls to facilitate coordination. The WRMP Project has a Scientific Advisory Team with expertise from many disciplines that will develop indicators, metrics, methods and a budget. The project is intended to result in a program that will monitor the performance of wetland restoration projects in San Francisco Bay, including those funded Measure AA.

The WRMP is in its early stages and will likely not have developed monitoring metrics until 2019. The project team is evaluating which metrics are best done on a project scale and which are best done on a regional scale. It is possible that Measure AA could fund some monitoring activities if approved by the Governing Board as consistent with the ballot language. It is also not known at this time whether these monitoring measures will be required by the permitting agencies.

At this point, staff and ad hoc committee members will be coordinating with Heidi and will track the progress of the project and report back to the full AC.

[Measures Assessed in the State of the Estuary Report \(SFEP, 2015\)](#)

The *State of the Estuary Report*, if updated periodically, can help the public evaluate whether the combination of projects funded by Measure AA and other sources are resulting in improvements to “the Bay as a whole in terms of clean water, wildlife habitat and beneficial use to Bay Area residents”.

The subcommittee learned that this report will be updated in the near future.

The following is a list of indicators from this report that are of most relevant to SFBRA and Measure AA Goals:

1. Water Quality

1. Safe for Aquatic Life: toxicity and concentrations of chemical pollutants
2. Fishing: concentrations of pollutants in fish popular for consumption by anglers

2. Habitat

1. Tidal Marsh: Total extent (acres) and tidal marsh in big patches (>500 acres)
2. Eelgrass: acreage

3. Wildlife

1. Benthic: Community composition
2. Fish: Native fish abundance, percent native fish, percent native species
3. Harbor Seals: Index of abundance
4. Wintering Waterfowl: abundance of six species of dabbling ducks and six species of diving ducks
5. Breeding Waterfowl: annual abundance of five of the most of the most abundant dabbling duck species in the estuary
6. Shorebirds: Abundance per hectare during the winter
7. Herons and Egrets: nest density and nest survival
8. Tidal Marsh Birds: index
9. Ridgway's Rail: density per hectare

4. Processes

1. Migration Space: percentage of undeveloped space and percentage protected from development
2. Feeding Chicks: for Brandt's cormorants, # of fledged young produced per breeding pair; for egrets and herons, # of young produced per successful nest

5. People

1. Public Access: increases in mileage of the Bay Trail and sites on the Water Trail
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San Francisco Bay Restoration Authority Advisory Committee

**Recommendations from the Advisory Committee to the Governing Board on
Performance Measures and Annual Report Format**

August 22, 2018

The following are the recommendations from the Advisory Committee (AC) to the Governing Board regarding performance measures for the San Francisco Bay Restoration Authority (SFBRA), as well as recommendations for the annual report covering Fiscal Year 2017-2018 and future years. These recommendations were initially developed by an ad hoc subcommittee and presented to the AC in May and June 2018. Following review of both written and verbal comments, the memo of the ad hoc subcommittee was updated and attached to this list of recommendations.

The Advisory Committee recommends that the Governing Board direct staff, as time permits, to do the following:

- Summarize and report out the performance measures contained in Table 1 below for the annual report covering Fiscal Year 2017-2018, focusing on primary metrics while continuing to evaluate secondary metrics for tracking and inclusion in future reports. Future reports should also include cumulative totals in relevant categories, as well as an assessment after five years to determine if changes to the grant program are needed. Gather Governing Board input and finalize this table while understanding that this table is a living document and may be updated as the program is implemented.
- For the annual report, develop a more qualitative “story” side to the projects that describes goals and eventually performance in a visually appealing format including photos, videos and charts. Ensure that the annual reports are clear and easy for nontechnical people to understand and identify with.
- Coordinate with the staff of the agencies and organization developing the Wetlands Regional Monitoring Program (WRMP), who are separately developing performance metrics for assessing regional wetlands restoration progress, and determine how the metrics developed for the WRMP can be used to assess the effectiveness of SFBRA-funded wetland restoration projects over time.
- Review the “Measures and Metrics Requiring Further Development” section of the attached memo and report to the Governing Board on which measures that staff recommends for further development and why, along with a process and timeline for doing so.

Table 1 contains a summary of the recommended performance measures.

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