

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**

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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 has 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. This memo lays out the main results to date, but also has a section 6 below where unresolved issues have been framed as discussion questions. Our goal is to provide 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 the work of the subcommittee, we have 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 draft table in the following section.

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>.

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.
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 proposes that the AC focus on the table of measures contained within this memo. After AC discussion, the intent is to have consensus-based performance measures to recommend to the Governing Board and SFBRA staff. The subcommittee proposes 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

* The dollar units indicated with an asterisk are secondary units that need further evaluation, as described in Section 6 below.

<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/ \$ *	
Habitat and public access projects	# projects/ \$ *	
Habitat and flood protection projects	# projects/ \$ *	
Habitat and flood protection and public access projects	# projects/ \$ *	
Pilot or demonstration projects	# projects/ \$ *	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/ \$ *	
Benefits to Economically Disadvantaged Communities		
Percentage of projects providing benefits to economically disadvantaged communities	percentage of total projects/ of total \$ *	
Youth Involvement		
Percentage of projects with significant youth involvement component	percentage of total projects/ of total \$ *	“Significant” to be determined by staff
Project Phases Funded		
Pre-Construction Only Projects	# projects/ \$ *	can include planning, CEQA, design, permitting
Construction Projects	# projects/ \$ *	can include other phases, too, but must include construction
Post-Construction Only Projects	# projects/ \$ *	can include maintenance and monitoring including periodic photos

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 usually focused on specific species of concern in the design
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	
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	
Geographic Distribution of Funds		
Dollars allotted to each region	# dollars	
Dollars allotted to each county	# dollars	
Funds Leveraged		
Total dollars leveraged by all projects funded that year	# dollars	
Private funds	# dollars	
Other government funds	# dollars	
Volunteer Hours		
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

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. Since these 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

5. Input Received During May 2018 AC Meeting

Ad Hoc Subcommittee Lead Roger Leventhal presented the draft memo and table during the May 6, 2018 Advisory Committee meeting for comment.

AC members commented on the need to use a tight filter for selecting performance measures to avoid overburdening the staff, and that measurements that inform future grantmaking are the most important.

Two sets of written comments were received and incorporated as edits, with review by Ad Hoc Subcommittee Lead and SFBRA staff.

6. Discussion Questions

Unresolved issues have been framed as discussion questions.

1. Should a trash removal metric be included in advance of having a shoreline cleanup project? Should removal of a rusting barge (i.e., Encinal Dunes project) be aggregated with trash collected during shoreline cleanup projects, with both measured in terms of weight of trash removed?
2. Should the metrics include the number of youth engaged, as well as number of projects with significant youth involvement?
3. Should metrics include trail miles *enhanced* as well as trail miles constructed?
4. Should a dollar value be reported for volunteer hours, e.g., at \$24.69/hour?
5. Should the dollar values in Table 1 be reported for items with an asterisk (*)?
 - a. Pro: More transparency about spending.

- b. Con: There will be an annual report summarizing all income and expenditures that will be audited and the audit will be reviewed by the Independent Citizens Oversight Committee. This performance measures table should focus primarily on other units since dollars are covered elsewhere. The budget will have to be prepared following accounting standards. We do not want to cause confusion by having dollar amounts in a performance measures table that are different because of different goals in calculating sums for categories. Also, it would be difficult to assess the percent of total dollars that benefit economically disadvantaged communities. I.e., if a given project benefits such a community, the total dollars provided to the grantee would not all benefit the community, as some of the dollars would benefit wildlife, etc.