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April 25, 2011

U.S. Environmental Protection Agency
Docket # EPA-R09-OW-2010-0976
75 Hawthorne Street, WTR-3
San Francisco, California 94105

To Whom It May Concern:

I am encouraged by EPA's investigations into new approaches to address water quality in the San Francisco Bay/Sacramento-San Joaquin Delta Estuary. Thus far, regulations and significant public investment have not prevented the continued decline of environmental conditions in the Delta system. There is significant potential to improve the effectiveness of regulations and the investment public funding by developing a regional environmental accounting system and using it as a decision support and accountability framework. The input provided in this letter can address many of the questions in the notice, and specifically questions A.1.b, A.4.b, A.4.h, and B.1.h.

In *Managing California's Water: From Conflict to Reconciliation*[1] published earlier this year, the authors are critical of the effectiveness of existing policies to control agricultural nonpoint source and urban stormwater pollution based on a lack of focus on performance (p. 284). As a result, they conclude: "Performance-based standards are clearly needed to remediate some water quality problems, where technology standards and best management practices are falling short" (p. 286). The report also recommends development of water quality trading schemes to promote cost-effectiveness and innovation (p. 287).

In line with these recommendations, I encourage EPA to establish a regional environmental accounting system to clearly articulate goals and drive accountability. Regional environmental accounting systems define incremental units of environmental benefit that directly link on-the-ground actions to TMDL and habitat enhancement targets. Tracking and reporting consistent units of benefit aligns regulatory policies (e.g. municipal separated stormwater sewer permits or MS4 permits) and public investment in restoration (e.g. Environmental Quality Improvement Program) to motivate effective actions and reduce the cost of environmental restoration. This approach also underpins an adaptive management approach that leverages monitoring information by comparing expected results using decision support models to actual observations. The resulting feedback informs improvements to models, policies and decisions.

Please see the overview of regional environmental accounting approach included below in this memo. The following references provide information about the a regional environmental accounting system currently being implemented in the Lake Tahoe Basin, the Lake Clarity Crediting Program.

http://ndep.nv.gov/BWQP/tahoe.htm
http://swrcb2.swrcb.ca.gov/lahontan/water_issues/programs/tmdl/lake_tahoe/index.shtml
http://enviroincentives.com/accountingexamples.htm

Thank you for the opportunity to comment on this important process. I believe that with improvements to the management of the San Francisco Bay/Sacramento-San Joaquin Delta Estuary we can greatly improve the resiliency of California's ecosystems and economy.

Sincerely,
Jeremy Sokulsky

[1] E. Hanak, et al (2011). *Managing California's Water: From Conflict to Resolution*. San Francisco: Public Policy Institute of California.

MEMORANDUM

DATE	December 15, 2010
TO	Interested Environmental Accounting Professionals & Practitioners
RE	Environmental Accounting System Operations Overview

This memo provides an overview of the general operations, tools and products involved in environmental accounting programs. It also identifies roles for each of the three main types of program participants described in Table 1 – credit users, credit producers and program administrators.

Table 1. Environmental Accounting Program Participants

Credit Users		Non-regulated credit users purchase credits or fund restoration efforts to produce and retire credits as a means to meet their environmental restoration goals. Credits provide the performance metric to determine the effectiveness and efficiency of the use of funds to produce environmental benefits.
		Regulators compel others to produce environmental benefits. Regulators use credits to define performance-based targets in permits and mitigation requirements.
Credit Producers		Credit producers are those individuals or entities that have the ability to produce credits by implementing improvements on current assets (land or facilities). Credit aggregators are a type of producer that creates opportunities to produce credits by working with others who own assets or by purchasing assets. Program provides performance metrics and flexibility to regulated credit producers.
Administrators		Program administrators are responsible for managing the overall program, including all of the necessary tools and protocols. Administrators are also responsible for the adaptive management cycle to ensure continual program improvement.

Two sets of operations are necessary to (1) prioritize the investment in conservation actions and define benefits of implemented actions, and (2) report outcomes and make ongoing technical and operational improvements to ensure the system continues to motivate effective actions over time. A fully operational program will clearly define the roles, tools and products, including forms, templates and technical guidance.

ENVIRONMENTAL BENEFIT REGISTRATION & ACQUISITION PROCESS

The environmental benefit registration and acquisition process overview is described in Table 2, which outlines the process for credit producers and credit users to engage in an environmental accounting program. Blue arrows signify the steps undertaken by credit producers or project proponents, green arrows represent the steps for credit users or investors, and the red Track & Transfer connector provides the platform for these two entities to come together. A brief description is provided for each step of the process, as well as associated tools, products and administrative roles.

	Select Site	Calculate Credit	Verify Conditions	Register & Issue	Track & Transfer	Procurement Strategy	Credit Demand
Description	Producer sets the project boundaries and determines types of credits applicable to project design (Infrequently/once per project)	Producer implements the project, calculates baseline conditions and estimates anticipated project benefits based on as-built information (Infrequently/once per project)	Third party verifier confirms that protocols were followed and anticipated environmental impact was appropriately calculated (At project completion & periodically)	Producer enters project into the online registry and program administrator issues credit periodically when impact is confirmed (Periodically/annually)	Issued credits are tracked by program administrators and either transferred to credit users or retired.	Credit user sets procurement strategy for obtaining desired credits (reverse auction, pooled resources, etc.)	Credit user determines internal demand for credits and funding availability
Tools	• Validation checklist • Program eligibility descriptions	• Credit calculators & protocols • Field measurement datasheets • Features inventory templates • Stewardship plan template • Easement Templates	• Rapid Assessment Methodology • Registry and Reporting Tool	• Online Registry and Reporting Tool	• Online Registry and Reporting Tool	• Online Registry and Reporting Tool • Online User Interface • Purchase agreement & standard contract templates	• Internal Documentation (permit or program requirements)
Products	• Property Maps • Notice of Validation (optional)	• Credit Estimate Report • Agency Banking Agreements (if applicable) • Stewardship plan/easements (if applicable)	• Accreditation Certificate • Verification Service Agreement (optional) • Verification and Monitoring Report	• Agency Certification Form • Annual Report • Credit Suspension or Cancellation Notice (if applicable)	• Credit balance report • Notice of sale • Approval of sale	• Formal Agency Approval (if fulfilling permit or program requirement) • RFP • Credit balance report	• Statement of Demand or Available Funding • Watershed Loadings Profile
Administrator Role	• Determine eligibility to participate • Provide Notice of Validation, technical commentary and anticipated credit estimate	• Provide credit calculators and datasheets • Determine reserve pool contributions • Provide Technical Assistance	• Verifier accreditation and training • Maintain online registry	• Provide registry guidance • Issue and list credits online • Generate Annual Report • Maintain online registry and user interface	• Confirm issuance, transfer and retirement of credits • Maintain online registry and user interface	• Determine buyer eligibility to participate • Assist with procurement • Confirm transaction through Registry and Reporting Tool	• Consultation and orientation to program

PROGRAM MANAGEMENT SYSTEM

The Program Management System establishes a coordinated annual cycle, defining a transparent program improvement process. Adaptive management functions incorporate targeted research and monitoring into action by systematically testing hypotheses in order to ensure credit calculation tools and assessment protocols accurately reflect environmental outcomes. Continual improvement functions enhance performance through an iterative process of developing plans with performance targets, tracking and reviewing actual performance, and using the information to improve operations. Periodic program adjustments ensure that the program continues to provide incentives to implement effective actions over time.

Figure 1 outlines the process for administrators to routinely evaluate new information, report results and make overall programmatic improvement decisions. Table 3 provides more detailed descriptions of each step, and associated tools, products and participant roles. The program management system steps are divided into four stages:

Plan – identify goals to be achieved, define how potential actions relate to the goal, document explicit objectives and action plans, define areas of uncertainty and allocate resources.

Do – implement and document actions, perform research and effectiveness monitoring to test hypotheses and reduce uncertainty.

Check – track, monitor and evaluate the results of the actions implemented, then synthesize information for decision makers.

Act - adopt operational and technical improvements and adjust future goals and plans in light of reduced uncertainty.

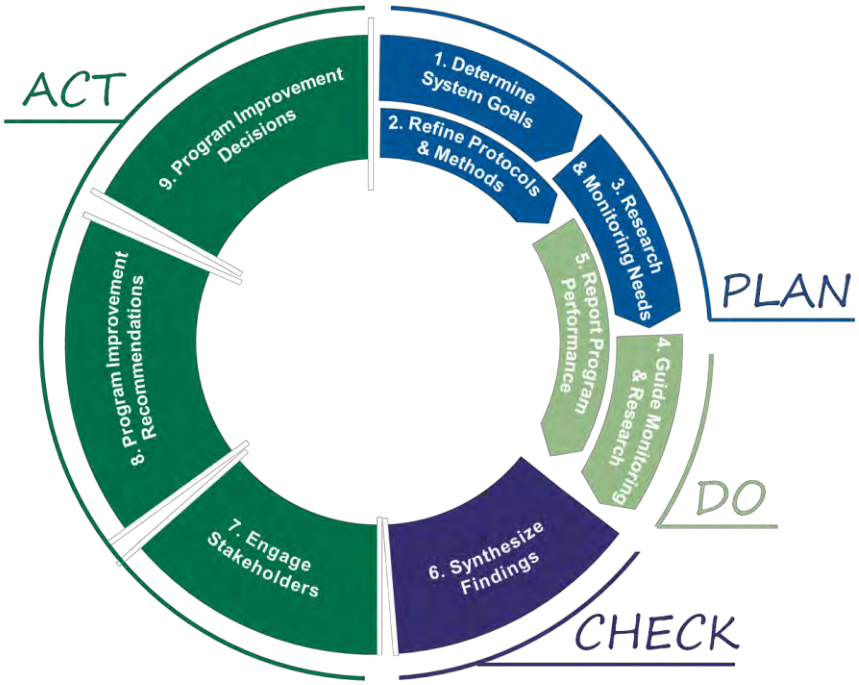

Figure 1. Program management cycle for administrators to enable continual program improvement.