

Approval of San Francisco Estuary and Watershed Science Contract Amendment

Requested Action: Direct the Executive Officer to amend an existing agreement with UC Davis to provide an additional \$490,775 of Science Program Prop 50 funds for continued publication of the *San Francisco Estuary and Watershed Science* online journal in FYs 12/13 and 13/14 (July 1, 2012 to June 30, 2014). In-kind contributions in the amount of approximately \$460,000 will be provided by the University of California Digital Library, University of California Davis, special issue underwriters, and staff from various other agencies, universities and stakeholder organizations.

Background

As identified in the Delta Reform Act, “the mission of the Delta Science Program is to provide the best possible scientific information for water and environmental decision making in the Bay-Delta system.” The Science Program fulfills this mission in part by adding to the body of best available scientific information through funding research (grants and fellowships) and peer-reviewed publication of research findings.

At its January 27-28, 2011 meeting, the Council approved an amendment to extend the *San Francisco Estuary and Watershed Science* online journal contract through June 30, 2012 and directed staff to identify cost share partners prior to requesting additional amendments. The action today proposes to amend the journal contract by extending it for two years at an additional cost of \$490,775. This funding request is offset by cost share of \$460,000.

The *San Francisco Estuary and Watershed Science (SFEWS)* is a unique online journal that is a primary source of peer-reviewed, credible science on water management issues of the San Francisco Bay, Sacramento-San Joaquin Delta and the watershed. As an “open access” science outlet the journal publishes articles—free of charge—to any interested reader. These articles are largely written by agency, stakeholder, and university scientists, provided they meet rigorous requirements for quality, objectivity, and credibility through peer review. Financial support (Budget Attachment 1) for the journal comes from the Delta Stewardship Council and in-kind support comes from the University of California Digital Library*, which provides the platform, the University of California, Davis, special issue underwriters, and various other agencies, universities and stakeholders that provide peer review. The support of these independent entities allows the editors and associate editors to be independent from political, agency, or stakeholder pressures to accept articles for publication; an ingredient critical to the journal’s credibility in the highly charged atmosphere surrounding California water issues.

The articles published in the journal continue to have influence beyond the local scientific community and often support important policy decisions or dialogue. For example, an article by W. Kimmerer in 2008 directly addressed the role of water diversions as a source of mortality for delta smelt. This article was heavily cited in the 2010 Biological Opinions that drive regulation of

***The University of California Digital Library is one of the world’s largest digital research libraries and is considered the University of California’s 11th University library. It was founded to assist the 10 University of California libraries to more effectively share their resources and holdings.**

water diversions. More recently, *SFEWS* published a carefully peer-reviewed dialogue describing an alternative analysis to Kimmerer's original article, plus Kimmerer's reply to that analysis. It is scientific dialogue of this sort, carefully managed to avoid argumentative judgments or poorly substantiated claims, that opens up potential new avenues for water management. In another example, a compendium of *SFEWS* articles relevant to implications of, and adaptation to, climate change was assembled by the editors for distribution at the 2010 Governor's Climate Summit.

Volume 9, issue 2 of *SFEWS*, published in August 2011, contained five articles that addressed some of the most challenging issues facing the Bay-Delta. Sommer et al. clarified the migration patterns of delta smelt, and showed how these patterns determine how many of this species are affected by exports of water from the Delta. Willis et al. studied the implications of climate change for flood operations and suggested why and how revisiting flood operating rules for reservoirs is an essential ingredient in adapting to expected changes that will occur in California's climate. Tanaka et al. used a complex model to evaluate how two different approaches to regulating Delta water exports affect water scarcity and the costs associated with scarcity. Suddeth et al. defined the regulatory and statutory considerations that must be considered if the state decides to change its policies with regard to Delta levees. Moore et al. addressed restoration of riparian zones along the Sacramento River and identified three factors essential to promoting the success of native understory species.

The December 2011 issue reviewed the basic ecology of tidal wetlands in the San Francisco Estuary. One article presented a regional perspective on the current status of tidal marsh restoration (Callaway et al.). Anticipated consequences of climate change were considered in a second article, in particular the challenges of rising sea level (Parker et al.). The ecology and status of tidal marsh birds, an especially important natural resource associated with tidal marshes, were reviewed by Takekawa et al. Robinson et al. provided detailed, site-specific accounts of invertebrates at China Camp, and Whitcraft et al. characterized vegetation at Rush Ranch.

As these examples illustrate, SFEWS not only publishes new, fundamental knowledge about this globally important ecosystem, but also provides a vehicle for the interaction of environmental policy with science.

Journal Usage

Since the journal's inception in October 2003, there have been a total of 23 issues and 91 papers. In addition, there have been 92,034 requests for articles. Articles of direct relevance to ongoing issues about delta smelt, salmon, climate change, and effects of diversions continue to be requested. Four issues, from 2005 and 2006, have each had 9,500 to 12,000 requests for information. Interest in the Journal has remained high for the entire life of its publication as indicated on Attachment 2.

Readership is widespread. For example, in February 2012, 63 percent of requests came from searches (probably for specific subject areas) on Google. Twenty-three percent came from direct access to the journal web page (probably people accessing the journal to scan for articles of interest or to read the latest issue). Fourteen percent came from "unknown" sources, most likely from search engines other than Google. In addition, journal articles have been widely cited in Biological Opinions, recovery plans and other State and Federal documents as well as by the Bay-Delta National Academy of Sciences –National Research Council (NAS-NRC) reports.

Budget

Publication of *SFEWS* is a shared effort of the Delta Stewardship Council (DSC), the University of California Digital Library (CDL), and the University of California at Davis (UC Davis). The DSC provides direct financial contributions and the CDL and UC Davis provide a nearly equal amount of in-kind services. In-kind services from the CDL include the journal's electronic platform, direct web access to the journal and IT support. UC Davis' in-kind support includes providing an independent, university based "home" for the journal, including office space, and support for developing and maintaining an archive of legacy articles. In addition, *SFEWS* occasionally publishes special issues focused on a single topic, for example, the Delta Regional Ecosystem Restoration Implementation Plan (DRERIP) conceptual models are currently scheduled for publication this coming September. Costs for publishing a special issue are underwritten by the requesting party (for example, the Ecosystem Restoration Program for the DRERIP models). And finally, peer review of the articles submitted for publication is provided free of charge by faculty and staff from different agencies, universities and stakeholders. The journal's Associate Editors (collectively called the Editorial Board, see Attachment 3) represent a list of the most eminent water scientists in the region. They are individuals who have volunteered their most valuable resource, time, to make the journal work, both strategically and in terms of reviews and guiding articles through peer review. Matching funds obtained from these sources allow the journal to remain independent and not subject to potentially biased outside influences. Please see Attachment 1 for a full breakdown of costs and contributions.

This current request is for the Council to allocate \$490,775 of Prop 50 funds to continue publication of *SFEWS* from July 1, 2012 through June 30, 2014. An in-kind contribution of approximately \$460,000 will be provided by CDL, UC Davis, special issue underwriters, and other agencies, universities and stakeholders (Attachment 1).

All issues and archives are available through the Journal website at:
http://escholarship.org/uc/jmie_sfews

Fiscal Information

Prop 50 funding for this amendment is available from current appropriations and is on the Delta Stewardship Council's list for bond funding.

List of Attachments

- Attachment 1: San Francisco Estuary and Watershed Science Online Journal - Budget Summary
- Attachment 2: San Francisco Estuary and Watershed Science Cumulative Monthly Impact, 2003-2011
- Attachment 3: San Francisco Estuary and Watershed Science Online Journal Editorial Board Members

Contact

Dr. Peter Goodwin
Lead Scientist

Phone: (916) 445-0463