

ACTION ITEM

Approval of *San Francisco Estuary and Watershed Science* Contract

Summary: Publication of the online journal *San Francisco Estuary and Watershed Science* has been a cooperative effort between the Delta Stewardship Council (and previously CALFED) and the University of California at Davis (UC Davis) since 2003. The current contract between the Council and UC Davis will expire on June 30, 2016. Staff recommends that the Council enter into a new two-year contract with UC Davis.

Requested Action

Authorize the Executive Officer to enter into a new two-year contract with UC Davis to provide a total of \$664,871 for continued publication of the *San Francisco Estuary and Watershed Science* online journal for FYs 16/17 and 17/18 (July 1, 2016 to June 30, 2018).

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 Council’s 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.

The *San Francisco Estuary and Watershed Science* (SFEWS) (http://www.escholarship.org/uc/jmie_sfews) is a unique online journal that is a primary source of peer-reviewed, credible science relevant to water management issues of the San Francisco Bay and the Delta and supports the achievement of a shared vision for Delta science, ‘One Delta, One Science’. Limited access to the scientific literature among agencies and stakeholders has long been cited as an impediment to science-based policy. Importantly, as an open access journal that charges neither authors for submissions nor readers for access, SFEWS addresses this challenge.

The articles published in the journal continue to have influence beyond the local scientific community and often support important policy decisions or dialogue. Popular topics in 2015 included drought, water availability, subsidence, water storage, snowpack, Delta smelt, Chinook salmon, water rights, hydrodynamics, and salinity. Historically, articles by William Bennett in 2005 and W. Kimmerer in 2008 are examples of articles directly addressing issues associated with listed or endangered species which were heavily cited in Biological Opinions for operation of the State and federal water projects. Dr. Bennett’s paper has been in the top 10 articles accessed from

SFEWS every year since its publication in 2005. Recent (e.g., 2015) articles on three-dimensional hydrodynamic modeling have paved the way for development of new research in linking water movement and fish behavior by the multi-stakeholder, Collaborative Adaptive Management Team (CAMT). The influential National Academy of Sciences book, *Sustainable Water and Environmental Management in the California Bay-Delta* cited articles from *SFEWS* repeatedly, with 15 papers cited in Chapter 5, “Stressors.” Many of the models that are used to help explain the concepts and ideas underlying many aspects of Delta planning were published in *SFEWS* (Volume 10, Issue 4; Volume 11, issue 1). In 2015, the journal published a paper solicited jointly by the Department of Interior and California’s Natural Resources Agency, “Challenges Facing the Sacramento-San Joaquin Delta” that was presented at the Nov. 16, 2015 meeting of the Delta Plan Interagency Implementation Committee, composed of 17 State and federal agency leaders and was widely distributed by the departments to legislative and congressional staff.

In 2013, *SFEWS* implemented an idea suggested by the editorial board (Attachment 1) and Philip Isenberg, then Chair of the Delta Stewardship Council, publishing nine invited essays from local and national experts who discussed how we can better use science to guide policies concerning water supply reliability and ecosystem restoration in the Bay-Delta. In the last two years thousands of readers have accessed essays by experts on drought, water storage, the status of groundwater, and land subsidence. The 2015 essay by Faunt and Sneed on groundwater trends in California was cited on Oct. 15, 2015 by the popular magazine *Wired.com* as “eye-popping”. Traffic to *SFEWS* on Oct. 16 the day after the *Wired.com* article was published, increased 270 percent. Similarly, traffic increased by 249 percent on the day of release for the issue containing essays on drought in California. Mike Connor, General Manager of the East Bay Dischargers Authority commented on the *SFEWS* issue containing articles on groundwater and challenges in the Delta: “Stunningly good issue....You have really achieved something. Thanks from us California citizens and scientists”.

Plans for 2016 – 2017 include three special issues; two summarizing the State of Bay-Delta Science, a summary and synthesis of our current scientific understanding of the Bay-Delta, and one on conservation objectives for Central Valley bird populations. We estimate the number of papers published in *SFEWS* in this period could increase as much as 50 percent as a result of these additions.

Journal Usage

The Essays and Editorial categories, established in 2013, have resulted in increases in the number of readers and broader exposure (Attachment 2).

Since the journal's inception in October 2003, a total of 39 issues have been published and 172,284 requests have been made for access to articles. Eighteen articles were published in 2015, compared to nine articles published, for example, in 2006; representing a continuing annual growth in the number of papers published. The steady growth of the journal's influence is illustrated by Google Analytics' comparison of access

requests per year (Attachment 2). Escholarship data (from the University of California Digital Library which provides open-access scholarly publishing services and a dynamic research platform to scholars worldwide) show 38,316 page views in 2015; 19,496 requests for articles in 2013; 14,724 in 2010; and 10,617 in 2005. In depth articles of direct relevance to ongoing issues about Delta smelt, salmon, climate change, water movement, and the effects of diversions are the most widely read, but articles that consider more widely divergent subjects such as water rights and economic considerations are also popular.

Authorship is spread across all interest groups as is readership. Most requests (74 percent) come from referrals and searches for specific topics in search engines like Google Scholar. Twenty-two 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).

The Delta Science Program and *SFEWS* editorial staff promote readership in a number of ways: linking *SFEWS* articles to the Department of the Interior's cross-reference database which provides more unique places on the web where people can discover the content that *SFEWS* publishes (e.g., the more widely content is indexed across the web, the greater the probability a *SFEWS* article will be located using a web browser); recommending that all grants and fellowships funded by the Delta Stewardship Council publish research results in *SFEWS*; require synthesis papers prepared in conjunction with joint UC Davis/Delta Stewardship Council science symposia publish in *SFEWS*; promote *SFEWS* at the State of the Estuary and Bay-Delta Science conferences; promote *SFEWS* in smaller venues like the Interagency Ecological Program annual workshop and the Collaborative Adaptive Management Team; and solicit essays and papers by and from the Editorial Board.

Budget

Publication of *SFEWS* is a shared effort of the Delta Stewardship Council, the University of California Digital Library (CDL), and UC Davis (Attachment 3). The Council 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 publishing 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. The Council has supported the publication at an average level of \$230,000 per fiscal year (2008 through the middle of 2016). The requested amount of \$664,871 includes a one-time addition in FY 16/17 for two special issues related to the State of Bay-Delta Science.

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 1) represent a list of the

most eminent water scientists in the region. Occasionally, *SFEWS* publishes special issues focused on a single topic.

This current request is for the Council to allocate \$664,871 of General Fund funds to continue publication of *SFEWS* from July 1, 2016 through June 30, 2018. This investment will leverage an in-kind contribution of approximately \$488,000 from CDL, UC Davis, special issue underwriters, and other agencies, universities, and stakeholders (Attachment 3).

The Executive Officer has delegated authority up to \$500,000 to enter into contracts and interagency agreements on the Council's behalf. Because this contract would exceed that amount, the Council must approve it.

Fiscal Information

Funding for this request is included in the Council's base budget and is contingent upon Legislative approval of the Governor's proposed FY 16/17 budget.

List of Attachments

Attachment 1: *SFEWS* Associate Editors,
2015-2016

Attachment 2: *San Francisco Estuary and Watershed Science* Quarterly Access,
2003-2015

Attachment 3: *San Francisco Estuary and Watershed Science* Online Journal – Budget
Summary

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