

Appendix D: A Sample Science Fellow Mentoring Plan

Delta Science Fellow Mentoring Plan

This Delta Science Fellow Mentoring Plan has been prepared by *Jane Smith, Delta Science Fellow, at University of the Bay, Sacramento*. The Plan establishes guidelines for work to be performed by the **Delta Science Fellow** in support of the Delta Plan with a Science Fellowship Award entitled “*Mercury Interactions with Algae: Effects of Mercury Bioavailability in the Delta*”. The **Delta Science Fellow** will work at *University of the Bay, Sacramento* with *Dr. John Doe (Research Mentor)* and *Dr. Adam Buck (Community Mentor)* at *State Water Resources Control Board*, and will conduct research on specified tasks: 1. *Water sample collection*, 2. *Laboratory analysis*, 3. *Statistical analysis*, 4. *Model development*, 5. *Data management and reporting*.

1. Orientation

Jane Smith (**Delta Science Fellow**) will attend:

(a) Program Orientation

- Attendance at the Delta Science Fellowship Orientation Program
- Internship in the Delta Science Program (this will be a one-week program unless the project requires more interaction with the Science Program)

(b) Project Orientation

This will include in-depth conversations between the research and the community mentor and the **Delta Science Fellow**. Mutual expectations will be discussed and agreed upon in advance. Orientation topics will include (a) the amount of independence the **Delta Science Fellow** requires, (b) interaction with coworkers, (c) productivity including the importance of scientific publications, (d) work habits and laboratory safety, and (e) documentation of research methodologies and experimental details so that the work can be continued by other researchers in the future.

2. Career Counseling will be directed at providing the **Delta Science Fellow** with the skills, knowledge, and experience needed to excel in his/her chosen career path. In addition to guidance provided by the research mentor, the **Delta Science Fellow** will be encouraged to discuss career options with researchers and managers at the *University of the Bay, Sacramento* and the *State Water Resources Control Board*.

3. Experience with Preparation of Grant Proposals will be gained by direct involvement of the **Delta Science Fellow** in proposals prepared by the *University of the Bay, Sacramento*. The **Delta Science Fellow** will have an opportunity to learn best practices in proposal preparation including identification of key research questions, definition of objectives, description of approach and rationale, and construction of a work plan, timeline, and budget.

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4. Publications and Presentations are expected to result from the work supported by the Fellow award. These will be prepared by the Fellow under the direction of *Dr. John Doe* and in collaboration with other researchers as appropriate. The **Delta Science Fellow** will receive guidance and training in the preparation of manuscripts for scientific journals and presentations at conferences.

The Fellow is also expected to present project results at the Bay-Delta Science Conference or the State of the Estuary Conference in at least one of the years of the Fellowship. Attendance of the annual meetings of the California Water Environment Modeling Forum (CWEMF) and/or the Interagency Ecological Program (IEP) Conference as well as of appropriate IEP technical team meetings (PWTs, see <http://www.water.ca.gov/iep/docs/IEP-ORG.pdf>) is also encouraged.

5. Teaching and Mentoring Skills will be developed in the context of regular meetings within the *University of the Bay, Sacramento* research group during which graduate students and postdoctoral researchers describe their work to colleagues within the group and assist each other with solutions to challenging research problems, often resulting in cross fertilization of ideas.

6. Instruction in Professional Practices will be provided on a regular basis in the context of the research work and will include fundamentals of the scientific method, and other standards of professional practice. In addition, the **Delta Science Fellow** will be encouraged to affiliate with one or more professional societies in his/her chosen field and to attend meetings of the professional society.

Participation at the Early Career Leadership Workshop organized by California Sea Grant and the Science Program is expected. This training will include: planning your research career, national and global trends in science, ethics, data management, proposal writing, communicating science, the science-policy interface, and creating a diverse workforce.

7. Technology Transfer/Outreach activities will include regular contact with scientists/managers at the *State Water Resources Control Board*. The **Delta Science Fellow** will be given an opportunity to become familiar with the university-agency-private sector relationship including applicable confidentiality requirements.

8. Success of the Mentoring Plan will be assessed through a process established at the beginning of the fellowship. The Science Program encourages evaluation and monitoring of the Delta Science Fellow's personal progress and his/her impacts to the science needs. Tracking of the progress toward his/her career goals after finishing the postdoctoral program should also be included.

This sample is adapted from the National Science Foundation guidelines for mentoring. http://www.nsf.gov/pubs/policydocs/pappguide/nsf10_1/gpg_2.jsp [Section J]