

# REQUEST FOR QUALIFICATIONS

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## Sutter Butte Flood Control Agency's Feather River West Levee Rehabilitation Early Implementation Project

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You are invited to submit a Statement of Qualifications and other materials, in accordance with the outline below, to be considered for selection to provide the Sutter Butte Flood Control Agency with geotechnical, surveying, and engineering design services for the Feather River West Levee Rehabilitation Early Implementation Project.

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### A. Categories of Services

The Sutter Butte Flood Control Agency (SBFCA) is seeking a consultant team to provide services necessary to proceed with implementation of the Feather River West Levee Rehabilitation Early Implementation Project (FRWL EIP). It is anticipated that a single consultant team will be selected encompassing all the required disciplines. The disciplines that shall be included in the team are as follows:

1. Geotechnical Evaluation and Engineering
2. Surveying, Topographic Mapping and Right of Way Engineering
3. Civil Design of Levee Rehabilitation Improvements
4. Engineering Services During Construction

### B. Consultant Services Provided by SBFCA

SBFCA has or will contract with previously selected consultants for:

1. Program Management Services (Peterson Brustad Inc.)
2. Hydraulic modeling of the Feather River (Peterson Brustad Inc.).
3. Environmental Compliance and Regulatory Permitting (ICF-Jones & Stokes)
4. Assessment District formation (Parsons Brinkerhoff)
5. General Counsel (Downey Brand)
6. Public Outreach (Lincoln Crow and Kim Floyd Communications)
7. Independent Technical Review (to be determined)

SBFCA will procure Right-of-Way and Construction Management services separately.

### C. Background

SBFCA is seeking to implement an Early Implement Project to rehabilitate, restore, and as necessary improve 30-44 miles of the west levee of the Feather River from south of Yuba City to Thermalito Afterbay, through Sutter and Butte counties. The goal of the project is to rehabilitate sections of the levee so that these sections can be certified as meeting FEMA standards for providing protection against the 100-Year flood event and also meet the new State standard of 200-Year flood protection.

The project is in preliminary stages of design development and is estimated to cost \$165M- \$280M. The project will primarily focus on eliminating levee underseepage issues by constructing a combination of seepage cutoff walls and/or levee seepage berms along the levee system. Construction is anticipated to begin in 2012 and take two and a half years to complete.

A Preliminary Problem Identification and Conceptual Analysis Report has been completed by Kleinfelder Inc., and a 10% preliminary design and cost estimate have been prepared by Peterson Brustad Inc. (PBI) for the northern 24 miles of the project. These documents are available for review on the SBFCA website at [www.sutterbutteflood.org](http://www.sutterbutteflood.org).

Since the completion of the Kleinfelder and PBI reports, SBFCA has been in discussions with Levee Maintenance District 1 (LD 1) regarding whether or not to extend the project southward to Highway 99. No technical work has been done by SBFCA on this southerly reach. Discussions are ongoing with LD 1 regarding this matter.

In addition, the project may also include ecosystem restoration elements associated with tailings borrow site(s), recreation sites, and/or setback levee elements.

#### **D. Selection Committee**

SBFCA will establish a Selection Committee to review the Statement of Qualification (SOQ) submittals received, and to develop a shortlist of three to five consultant teams to be invited to submit a more detailed proposal for the work.

Depending on the number and/or quality of the SOQ submittals, SBFCA reserves the right to skip the Request for Proposal (RFP) process and select a consultant team based upon the SOQ submittals received.

#### **E. Work to be Completed**

The Consultant Team shall develop the design, plans, specifications, and cost estimates for strengthening the Feather River West Levee. Multiple construction packages may be prepared depending on right of way acquisition, funding constraints and permitting timelines. Required tasks may include:

1. Project Management
  - 1.1 Attend and Document Design Meetings
  - 1.2 Correspondence
  - 1.3 QA/QC Administration and QCP Development
  - 1.4 Subcontractor Management
  - 1.5 Maintain Project Files Overall Team Management
  - 1.6 Overall Team Management
2. Quality Control and Quality Assurance
3. Project Design
  - 3.1 Project Scoping

- 3.2 Review existing reports, utility surveys, geotechnical data, hydraulic analyses, existing Reclamation Board Permits, etc.
  - 3.3 Develop 30% Design Documents & Cost Estimates
  - 3.4 Develop 60% Design Documents & Cost Estimates
  - 3.5 Develop 90% Design Documents & Cost Estimates
  - 3.6. Develop 100% Design Documents & Cost Estimates
  - 3.7 Basis of Design Documentation
  - 3.8 Coordination with DWR, CVFPB, and USACE on project design issues.
4. Acquisition of Central Valley Flood Protection Board Permits
  5. Acquisition of encroachment permits from local Levee Districts, cities and counties.
  6. Identification of Right of Way needs
  7. Engineering During Construction
  8. FEMA Accreditation - The selected design team need to certify through the FEMA CLOMR/LOMR process, that the levee improvements will meet FEMA standards for providing protection against the 100-Year flood event.
    - 8.1 Prepare FEMA CLOMR application at 30% Design stage.
    - 8.2 Prepare FEMA LOMR application for FEMA accreditation of levee system after construction.
  9. Topographic Survey and Right of Way Engineering Tasks - The Topographic Survey and Right of Way Engineering Services tasks shall provide aerial photos and topographic mapping for design purposes, prepare legal descriptions and plats for right of way acquisition, and provide quality assurance surveys during construction. Required tasks may include:
    - 9.1 Review of existing topographic data obtained by SBFCA, DWR, and the Corps.
    - 9.2 Development of design topography including:
      - a. Field surveys to establish project horizontal control.
      - b. Digital aerial orthophotos of project area extending a minimum of 600 feet beyond the levee alignment. Photos shall be in both black & white and color
      - c. Topographic mapping at a scale of 1"=40' with a contour interval of 1 ft.
      - d. Cross sections measured at 200 ft intervals by conventional methods from 50 feet waterward (no bathymetry is required) of the waterside toe of levee to 500 feet landward of the landside toe of levee. Provide additional cross sections to document ramps and road intersections.

- e. Field surveys to locate planimetric features.
  - f. Field surveys to locate trees with trunk diameter greater than 4-inches and drip line perimeter of elderberry shrubs.
  - g. Topographic mapping of any material borrow sites.
- 9.3 Preparation of right of way acquisition documents including:
- a. Overlay of Assessor's Parcel Maps on design topography.
  - b. Recovery of section and parcel corners.
  - c. Preparation of right of way maps showing all parcels and easements along the project levees.
  - d. Legal descriptions and plats of temporary and permanent easements.
  - e. Legal descriptions and plats of fee acquisition parcels.
- 9.4 Construction surveying including:
- a. Establish project horizontal and vertical control for contractor's surveyor.
  - b. Quality assurance field check at 500 ft intervals of pre-construction cross sections surveyed by contractor.
  - c. Quality assurance check of contractor's surveys of borrow site(s).
  - d. Quality assurance field check at 500 ft intervals of post-construction cross sections surveyed by contractor.
- 9.5. Horizontal control shall be on State Plane Coordinates (CCS83)
- 9.6 Vertical control shall be on National American Vertical Datum 1988 (NAVD88) .
10. Geotechnical Evaluation and Engineering
- 10.1 Review existing technical report/studies pertaining to the project. - Research, gather and review all existing and available documents including geotechnical and geological studies, and other documents.
- 10.2 Subsurface Explorations & Laboratory Testing:  
Consultant shall collect all soil data necessary to supplement data provided by SBFCA that will be required to support the design process, and meet FEMA 44 CFR 65.10. accreditation requirements. This task will include performing subsurface explorations and geotechnical testing, materials testing and analysis. Prior to the start of this task, Consultant shall prepare a work plan for geotechnical assessment that includes a sketch of bore hole locations, depth of each bore hole, soil sampling intervals along the bore hole, sample custody protocols, and the soil testing methods that follow standard geotechnical procedures (i.e. ASTM). Consultant shall meet with the SBFCA to go over the work plan prior to the start of this task. Subsurface explorations methods are to include hollow stem auger borings and Cone Penetrometer Testing.
- Consultant shall perform laboratory testing of the samples collected during the subsurface exploration. Laboratory testing will include in-situ moisture and density, grain size distribution, shear strength and hydraulic conductivity.
- 10.3 Geotechnical Analyses

Once subsurface conditions are evaluated and laboratory testing is completed, the Consultant shall perform a geotechnical analysis of the levee system. To demonstrate embankment and foundation stability, slope stability will be analyzed for long-term (steady state), post construction, sudden draw down, and seismic in accordance with USACE manuals EM 1110-2-1913 and ER 1110-2-1806. Also through and under seepage analyses will be conducted utilizing finite element methods (SEEPW) in accordance with ETL 1110-2-569, SOP (2004), and DWR Interim Levee Design criteria.

Settlement analysis to ensure that adequate freeboard is maintained will be performed in accordance with USACE. EM 1110-2-1913 and EM 1100-2-1940.

Analyses will be conducted for 100-Year, 200-Year, 1957 Profile and Top of Levee water surface elevations. Where deficiencies exist, Consultant shall recommend and design mitigation remedies.

- 10.4 Consultant shall document geotechnical explorations and analyses in reports to support the FEMA accreditation process as required under Task 8 above.
11. Assist with acquisition of Section 104 Agreement, Section 408 permit, and DWR EIP funding documentation requirements.

#### **F. Consultant Selection Schedule**

1.	Issue Request for Qualifications	February 11, 2010
2.	Project Site Tour (See Attachment B)	February 19, 2010
3.	SOQ Submittal Deadline	March 11, 2010
4.	Develop short list of Consultant Teams	March 25, 2010 (Tentative)
5.	Issue RFP to shortlisted teams	April 1, 2010 (Tentative/If needed)
6.	Proposed Submittal Deadline	April 29, 2010 (Tentative/If needed)
7.	Interview short-listed consultants	May 13, 2010 (Tentative)
8.	Select consultants	May 20, 2010 (Tentative)
9.	Finalize contract negotiations	June 20, 2010 (Tentative)
10.	SBFCA Board Approval of Contract	July 14, 2010 (Tentative)

As stated earlier, depending on the number and/or quality of the SOQ submittals, SBFCA reserves the right to skip steps 4, and 5, and select a consultant team based upon the SOQ submittals and any scheduled interviews.

#### **G. Statement of Qualifications**

Teams who are interested in providing the consultant services described above are to submit a State of Qualifications (SOQ) **not exceeding 30 pages in length** (not including cover letter, table of contents, or fly sheets) that includes the following:

1. Identification of prime and subconsultants: Include key personnel (those who will provide the majority of the labor hours) and lead persons to be assigned to the project. Please be very specific about education and background of the key staff as well as current and past participation directly with the primary applicant. Short resumes of key participants must be included.
2. A written description of projects recently completed. Be specific regarding projects that are the same, or similar in nature to what is described in this Request for Qualifications (RFQ). Provide contact data for references. Please cross reference key team members to the listed projects.
3. Demonstration of knowledge of Federal, State and local laws, rules, regulations, ordinances, etc., specific to related projects.
4. Conceptual approach, and schedule for services requested.
5. Present workload and staff availability.
6. List any potential conflicts of interest and a strategy for negating them. See Attachment A for more specific information on potential conflict of interests.

Questions may be directed to Dave Peterson, SBFCA's Agency Engineer, via email at [dpeterson@pbieng.com](mailto:dpeterson@pbieng.com).

#### **H. Selection Criteria**

Applicants shall submit 10 bound copies of their SOQ, one unbound copy, and one electronic pdf copy on cd. The SBFCA Selection Committee will evaluate all submitted SOQs in accordance with the criteria stated below. The Selection Committee will decide which applicants will be short listed and invited to submit a more detailed proposal and attend an interview. The Selection Committee may also elect to select a consultant team based upon the SOQ submittals. Evaluation and selection criteria may include the following:

1. Consultant Team's qualifications and experience on similar projects.
2. Qualifications and experience of the project manager and key personnel.
3. Consultant Team's project understanding and conceptual approach.
4. Consultant Team's present workload and staff availability.
5. Consultant Team's ability to meet established project schedule.
6. References for prime and key subconsultants.
7. Consultant Team's ability to negate any identified conflicts of interest

#### **I. Submittal Deadline**

Applicants who are interested in providing the services for this project are required to submit a Statement of Qualifications no later than 2:00 pm on **March 11, 2010**. All SOQs and materials submitted in response to this RFQ will become the property of SBFCA and will not be returned. Please submit the SOQ to:

David Peterson  
SBFCA Agency Engineer  
Peterson Brustad Inc.

1180 Iron Point Road, Suite 260  
Folsom, CA 95630

Receipt in the above office must be by the deadline stated regardless of postmark.

**J. Evaluation Process**

Each submittal will be reviewed for completeness of documentation. The submittals will be evaluated and scored by the Selection Committee based on the selection criteria.

## **ATTACHMENT A – ADDITIONAL CONFLICT OF INTEREST INFORMATION**

A potential conflict of interest is defined as the past retention (within 3 years) and/or current retention of any member of the team by (i) any agency that will be providing permitting, funding, or oversight for this project (e.g., Corps, DWR, CVFPB, F&G, F&WS, etc), or (ii) any member agency of SBFCA. The existence of a conflict of interest does not preclude a team member from working on the project; rather, the team must demonstrate the ability to negate the conflict of interest by demonstrating that the conflict is only theoretical (i.e., that there really isn't a conflict) or by demonstrating that despite the existence of the conflict, the work to be performed by SBFCA will not be impacted.

Examples of situations which are conflicts of interest, and for which the team should provide additional information include:

1. A firm which works for another client, funder, or regulatory agency as a reviewer of this work:
  - a. The firm works for FEMA in review of SBFCA's eventual LOMR package.
  - b. The firm works for DWR or USACE in reviewing designs, and SBFCA's design would likely be provided to this firm for review on behalf of DWR or USACE.
  - c. The firm works for SBFCA and could be involved in the selection of the design firm and/or oversight of the contract.
  - d. The firm works for DWR, USACE, or FEMA on technical studies which contradict or are inconsistent with SBFCA's work in some way. An example of this would be if the firm provided to DWR a geotechnical analysis which used soil strength assumptions which SBFCA felt were over-conservative, while the firm was also on SBFCA's team.
  
2. A firm which itself or through its principals, has a financial interest which influences a design decision. For example, if a principal had a family farm along the toe of the levee, and SBFCA were trying to make a decision between a toe berm and a slurry wall, that principal might try to steer the design toward the slurry wall to avoid right of way take.
  
3. A firm which provides services to one of SBFCA's member agencies, where that firm is asked to exercise independent judgment on behalf of SBFCA in evaluating data or suggesting solutions, in such a way as that firm could improperly influence the priorities of what work SBFCA wants to do. For example, if a member agency's engineer is on the SBFCA team and evaluating data and being unduly conservative so as to ensure certain repairs get done within the jurisdictional boundaries of that agency, that action could reprioritize limited funds away from other member agencies of the JPA.

## **ATTACHMENT B – SITE TOUR INSTRUCTIONS**

Date: February 19, 2010

Start Time: 9 AM

Start Location: Levee District 1 Offices  
243 Second Street  
Yuba City, California 95591

Details: Interested Consultant Teams are invited to participate in a tour of the project site on February 19, 2010. The tour will commence with SBFCA staff providing an overview of the project and consultant team selection process, after which the tour proper will begin. The tour will start at the south end of the project and proceed north to Thermalito Afterbay. Transportation will not be provided therefore consultants will travel in their own vehicles. To limit the number of vehicles travelling on the levees, Consultant Teams are strongly encouraged to carpool and to limit tour participation to key team members.