San Mateo County Resource Conservation District

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Request for Proposal
to
Develop Solutions to Flooding on Pescadero Road

Project Summary

The San Mateo County Resource Conservation District (RCD) is searching for an outstanding team of professionals to identify, describe, and model conceptual alternatives for flood control projects that will protect and potentially restore critical coastal resources, protect public health, safety, and property, and advance planning and collaboration in Pescadero watershed management.

Several times a year, Butano Creek overtops its banks and floods Pescadero Creek Road. The flooding shuts down the road which is the main entrance into town from State Route 1. When the road floods, it causes hardship and disruptions to community access and egress, emergency response, school district bus service and attendance, downtown businesses, and local agriculture. Residents of the town and elected officials identify flooding as a priority resource management concern.

Background Information

Pescadero is an unincorporated farming and ranching community, located within San Mateo County, in one of the most rural areas in the greater San Francisco Bay area. It is relatively isolated in the mostly undeveloped area of San Mateo County's south coast.

Butano Creek drains the Santa Cruz Mountains, flowing through forest and agricultural land and draining highly erodible soils before crossing under Pescadero Creek Road and entering the Pescadero Marsh Natural Preserve, joining Pescadero Creek near its mouth and then entering the Pacific Ocean. The creek and associated wetlands and riparian area provide valuable habitat for a number of public trust species, including the federally listed California red legged frog, San Francisco Garter Snake, Tidewater goby, and Central California Coast Steelhead, and historically, Central California Coast coho salmon. Habitat in the Butano watershed has been degraded or modified by a number of anthropogenic influences, including elevated sediment loads, relic levees, water control structures, habitat conversion, water diversion, and nutrient inputs.

Increased sediment delivery to the Butano system, along with changes to sediment transport and storage has resulted in localized aggradation of the Butano Creek bed in the vicinity of Pescadero Creek Road, as well as upstream incision. Clearance under Pescadero Creek Road where it crosses Butano Creek has decreased from 13 feet when the box culvert was completed in 1961 to less than 2 feet today. Sediment storage and transport appears to be a

major issue with respect to this flooding problem. Road flooding now occurs in minor rain events and is not limited to major storms.

Historically, the agricultural community addressed sediment deposition and flooding by clearing sediment and vegetation out of the creek bed. This stopped with both increased environmental regulation and a change in ownership of the marsh to State Parks. Of the members in the Pescadero community that have expressed an opinion, the majority appears to believe that dredging the creek is the most effective method to address road flooding. The goal of this project is to develop and model alternatives to identify feasible long term solutions to the flooding problem. The solutions identified may be used for seeking implementation funding.

Project Approach

Any long-term solution to the flooding must be an integrated one that successfully reduces the hardships and risks to the community due to flooding while protecting habitat and trust species at the project site and meeting any permitting requirements. The goal of this project is to identify feasible long term solutions to the flooding, while minimizing negative impacts to listed or other sensitive species and with a secondary goal of enhancing or restoring species and habitat within the project area.

The RCD has convened an advisory group for this project that includes two at-large representatives of the Pescadero community, one elected member of the Pescadero Municipal Advisory Council, representatives of resource agencies with funding and permitting authorities, and County staff with engineering and biological expertise and responsibilities. The advisory group will be involved in selection of the consultant team; providing data, information, and other resources to the consultants as needed and feasible; and reviewing deliverables.

To ensure the greatest benefit to project goals, the selected consultant team must coordinate effectively with various ongoing efforts that may provide information relevant to addressing flooding of Pescadero Creek Road. Key efforts include:

- The National Marine Fisheries Service will soon make available field data from the project entitled "Field Data Collection for the Construction of Hydrodynamic Model for Pescadero and Butano Creeks." These field data will facilitate characterization of existing conditions and evaluating potential actions.

- The San Francisco Bay Area Regional Water Quality Control Board will soon make available the research that has been completed towards the development of Total Maximum Daily Loads (TMDL) to alleviate impacts from excessive sedimentation in the Pescadero-Butano watershed, including a sediment budget for the Butano Creek watershed.

- Local residents have contracted a consultant that has developed a concept and preliminary designs for a dredging alternative that aims to restore fish passage and may have potential to alleviate chronic flooding.

- A science panel has been formed by California State Parks, the California Department of Fish and Wildlife, the U.S. Fish and Wildlife Service and the National Oceanic and Atmospheric Administration's Restoration Center and National Marine Fisheries Service, Southwest Region to investigate ecosystem functions and consider recommendations regarding future management actions at Pescadero marsh and lagoon.

The selected consultant team must be able to identify and answer key technical questions, elicit community input (history, local knowledge, and values) via at least two community meetings, and utilize the Project's Advisory Group to the RCD as appropriate and cost-effective.

Project Scope

The study will contain five primary tasks. The consultant team will be expected to participate in at least two community meetings under tasks 1, 3, and/or 4 as proposed and agreed upon. Project tasks, deliverables, and estimated timeline (subject to refinement during contracting) are as follows:

Task 1: Review Existing Information

Review existing information (geomorphic studies, flooding studies, LiDAR and field survey data, etc.) to identify critical gaps in information that: (1) are necessary for analyzing project alternatives; (2) avoid any redundant work; and (3) directly impede the ability to develop long-term solutions to the flooding problem.

Deliverable *[June 27, 2013]*:

- Memorandum listing information reviewed and identified data gaps.

Task 2: Refine Project Scope

Finalize the Project scope of work with consideration of the existing information from Task 1, including newly released TMDL research for the Pescadero-Butano watershed, anticipated to be available within the specified timeframe.

Deliverable *[July 11, 2013]*:

- Final scope of work approved by the RCD.

Task 3: Existing Conditions Analysis

Analyze existing conditions that affect streamflow, flooding and sediment transport and deposition, habitat, and trust species at the project site. This analysis must be sufficient to

identify and develop project alternatives. The scope will be based on the review of existing information in Task 1 and refined project scope in Task 2 and may include additional data collection as proposed.

Deliverables *[April 1, 2014]*:

- All raw data collected as part of this task
- Summary of findings, documenting existing conditions including flood analysis

Task 4: Identify/Develop and Evaluate Concepts

Identify, develop and evaluate concepts to reduce flooding or adverse impacts from flooding. Evaluation should include modeling and quantification of flood reduction benefit; benefits or impacts to sensitive species; sustainability with respect to sediment supply, transport, and storage; and feasibility of implementation.

Based on existing conditions and any new data collected, develop and evaluate the following concepts:

- doing nothing;
- dredging Butano Creek within the County's Pescadero Creek Road right-of-way as an effective interim solution to the flooding;
- dredging upstream and downstream of the County's Pescadero Creek Road right-of-way to determine whether or not there is an effective interim dredging solution to the flooding;
- a restoration alternative that maximizes habitat protection and restoration, restores the system's ability to store sediment in banks and on the floodplain, and restores a dynamic but stable channel configuration;
- dredging concept currently identified by the local community (which will be provided to the consultant team); and
- new concepts proposed by the consultant team for sustainable long-term solutions to flooding and/or solutions that are integrated with ecosystem restoration.

Deliverable *[July 1, 2014]*:

- Design report that can be understood by the general public that identifies and clearly describes project alternatives to address flooding problems at Pescadero Creek Road. Final conceptual design report will be considered complete when approved by RCD.
    - Alternatives shall be developed to a conceptual level that provides clear understanding among stakeholders of the scope and intent of the proposed alternative, and facilitates effective evaluation of the alternative(s) and their impacts.
    - Concepts shall include, at a minimum, conceptual design drawings in plan view that delineate location and extent of proposed project activities and

written descriptions of the primary project activities and their objectives. Concepts shall include quantification of flood reduction benefit.
- Each alternative shall include suggested, reasonable construction strategies to achieve project objectives.
- Each alternative shall include a discussion of expected post-construction operation and maintenance requirements.
- Each alternative shall include a discussion of feasibility in regards to cost, constructability, and attainability of permits, permissions, and approvals.

Submission Requirements

Submission packages must be thoughtful, clear and well-organized and include the following components *in no more than 20 pages*:

- Cover letter expressing interest and obligating lead consultant to fulfill proposal commitments
- Executive summary
- Description of project approach
- Task description and schedule confirmation
- Personnel qualifications and areas of expertise (including sub-consultants)
- Team organizational chart
- List of comparable projects and references
- Firm profile(s)
- Project budget, including team member fees

Applicants must submit one electronic copy of the package to the San Mateo County Resource Conservation District via email or other digital means to *irina@sanmateorcd.org* no later than 5:00 p.m. PST, Monday, April 1, 2013.

Five original hard copies should be postmarked by the same date and time and mailed to:

San Mateo County Resource Conservation District
Attn: Irina Kogan
625 Miramontes Street, Suite 103
Half Moon Bay, CA 94019

Irina Kogan will be available only to answer questions about submission requirements. She can be reached by phone at 650.712.7765 x107 or by email.

Budget and Funding

The cost for services for the total project must not exceed $240,000. $77,000 was awarded through the Bay Area Integrated Regional Water Management Plan under Proposition 84 to develop conceptual designs for solutions to the flooding in Pescadero. $18,000 was awarded under an agreement with the US Fish and Wildlife Service Coastal Program to integrate restoration and recovery of trust species with efforts aimed at reducing impacts from flooding. $145,000 was provided by the County of San Mateo to evaluate the potential for dredging

alternatives within and beyond their right-of-way to alleviate flooding and to integrate with other components of this project.

Consultants will be compensated for work throughout the project as work is completed upon payment to the RCD by the funding agencies after invoices have been approved. Five percent of invoice amounts will be retained until the project has been successfully completed.

Selection Process and Timeline

Submissions are due on April 1, 2013, as described above. A selection committee comprised of members of the advisory group and RCD staff may choose up to three applicants to be interviewed or will make a selection based solely on the proposals submitted.

The Selection Committee will score proposals based on the following scale:

- Description of project approach [17%]

  Successful applicants will describe an approach that supports the purpose and scope of the project. The approach will also be consistent with the proposed task description and schedule confirmation.

- Task description and schedule confirmation [20%]

  Successful applicants will propose a task description and schedule confirmation that is consistent with the proposed project approach and conforms to the project scope. The tasks and schedule will achieve the desired goal of the project.

- Qualifications of personnel [20%]

  Successful applicants will assemble a team of highly qualified individuals who have demonstrated ability in their proposed roles vis-à-vis implementation of the described project approach, tasks, and schedule. These individuals will have expertise and skills in hydrology, hydraulic modeling, surveying/mapping, biology and ecology (including anadromous fish restoration practices and principles and knowledge of local herpetofauna), coastal marsh and lagoon ecology, process and function, fluvial geomorphology; sediment dynamics; biology; project management; civil engineering, and integration of the above fields to create recommendations for long-term solutions to flooding at the Project site.

- Proposed budget [5%]

  Successful applicants will propose budgets that are cost-effective, sufficiently detailed, and realistic. Cost-effective proposals will be able to accomplish higher levels of design with the available funds. The cost for services for the total project must not exceed $240,000. Hourly fees must not exceed $175 per hour for any individual.

- Success in comparable projects [20%]

  Successful applicants will demonstrate experience and success in comparable projects. References will support examples of success in comparable projects.

- Performance history [13%]

Successful applicants will demonstrate a history of cost control, work quality, and adherence to schedules and deadlines. References will support examples of successful performance history.

- Well-written proposal [5%]

  Successful applicants will demonstrate their ability to produce a well-written final project by submitting a well-written proposal. The proposal will be highly readable, well organized, comply with all submission requirements, and not contain grammatical or typographical errors.

Up to four applicants may be invited to present their proposal to the selection committee. Those who have been selected for presentations will be notified by 5 pm PST on April 22, 2013. The RCD will schedule a conference call for 10:00 am on Thursday, April 25, 2013 to provide information about the presentations and to answer questions from applicants as they prepare for the presentation. Presentations will be delivered in Half Moon Bay on a date to be determined during the week of May 6, 2013. If it is not reasonably feasible for an applicant to travel to Half Moon Bay, efforts will be made to conduct the interview remotely.

The RCD Board of Directors will consider the recommendation of the selection committee on May 16, 2013. If the recommendation is approved by the RCD Board of Directors, every effort will be made to execute a contract and begin work immediately thereafter.

Contracting Entity

The RCD is the contracting entity and project manager. The RCD is a non-regulatory public benefit district to help people protect, conserve, and restore natural resources through information, education, and technical assistance programs. The work of the RCD is accomplished through strong voluntary partnerships with land owners and managers, technical advisors, area jurisdictions, government agencies, advocates, and others.

RCDs were established by the state of California to be locally governed special districts that act as focal points for local conservation efforts, using very diverse means to conserve natural resources on public and private lands. Established in 1939, San Mateo County's RCD was the first such district in California. It serves the coastal portion of San Mateo County, including all watersheds in the county that drain into the Monterey Bay National Marine Sanctuary. For more information about the RCD, visit www.sanmateorcd.org.