



SACOG Board of Directors

Item #09-5-2
Consent

May 13, 2009

Authorize RUCS Federal Funding-Grant Opportunities

Issue: Update on efforts to procure grant awards to aide in RUCS implementation.

Recommendation: The Land Use & Housing Committee recommends that the Board approve the application as submitted and acceptance of the grant, should funds be awarded.

Committee Action/Discussion: Upon the urging of Secretary Woodley of the U.S. Army Corps of Engineers (USACE), SACOG requested funding directed to the USACE to undertake a comprehensive study of the SACOG region. In early February, seed funding was awarded and a scope of work has been established. A component of immediate interest is the need to establish fiduciary and policy partnerships with the Corps' sister agencies.

In meetings with U.S. Environmental Protection Agency (USEPA), U.S. Fish and Wildlife Service (USFWS), and Federal Highways Administration (FHWA), funding opportunities (direct to SACOG) have been identified and the following actions are underway. USEPA released an RFP for their Wetlands Program Development Grants. Environmental Protection Agency (EPA) staff has strongly encouraged SACOG to apply for funds and a grant application was submitted by EPA's deadline of March 31, 2009. SACOG will be seeking funding to support the categorization and qualification sectors of the Six-County Aquatic Resources Inventory (SCARI). Grant funds will be awarded in September 2009. It is anticipated that six to 15 awards will be granted ranging from \$50,000 to \$350,000. A final copy of the EPA grant is attached.

Approved by:

Mike McKeever
Executive Director

MM:RS:pm

Attachment

Key Staff: Rebecca Sloan, Director of External Affairs and Member Services, (916) 340-6224

Project Title
04-20-2009

Six-County SACOG Regional CRAM Evaluation of Preservation and Restoration Lands

I. National, Regional and State Priorities Addressed by this Proposal

The National and Regional Area of Priority for this proposal are linked to EPA's National priority for Refining the Protection of Vulnerable Wetlands and Aquatic Resources and specifically to supporting projects which encourage the development of effective ecological performance standards for compensatory mitigation sites. The Regional Priorities addressed by this project include the adoption of policies and procedures that clarify wetland protection, restoration and compensatory mitigation and addresses and evaluation of the compensatory mitigation effectiveness. Additionally, the project should develop mechanisms to improve effectiveness, compliance and adaptive management and development of tools that assist evaluation of jurisdiction under the Clean Water Act. The project also addresses the California specific priority of developing state program compensatory mitigation approaches that align with and can complement the aforementioned federal mitigation requirements.

II. Name of Applicant and Key Staff

Sacramento Area Council of Governments (SACOG)
Key Personnel: Stacey McKinley, SMcKinley@SACOG.ORG, 916.605.9652

III. Geographic Location

Sacramento, Sutter, Yuba, Yolo, El Dorado and Placer Counties

IV. Total Project Cost and Dollars Requested

\$195,000 Total Cost
\$150,000 Dollars Requested via this Grant

V. Abstract/Project Summary

The main objective of this proposal is to assess the qualitative and quantitative value of wetland resources in the Six-County Sacramento Region utilizing CRAM and regionally-specific qualifiers to determine the best available lands for restoration and preservation. The desired outcome would be to assess via a rapid, scientifically defensible and standardized assessment the current condition of wetlands and lands which might have historically, or in the future have the potential to be, appropriate for either preservation and/or restoration. The Six-County SACOG Region has experienced and will continue to experience a large majority of the states projected growth. While a significant amount of data has been developed in order to support broad planning efforts like the Nationally acknowledged Blueprint, the various Habitat Conservation Plans in the region and the recently adopted MTP, most of these projects have not included a qualitative and quantitative assessment of mitigation opportunities, consistent with the new compensatory mitigation rule and in a platform readily available to decision makers. The result of our findings would serve to better inform our planning and project level decision making-- including SACOG's efforts to better integrate planning and NEPA efforts. This project would be designed to stand alone as a temporal inventory for decisions as well as a parallel effort to the Six County Aquatic Resources Inventory which is currently underway.

Overall, the project would assess the performance of wetland and riparian restoration projects, mitigation projects and the status and trends of ambient conditions within the watersheds of interest within the Six-County region. In accordance with both the stated objectives of CRAM and the National, State and Regional priorities of the EPA., our project would work to provide ambient monitoring to help decision makers to quantify the relative influence of anthropogenic stress, management actions, and natural disturbance on the spatial and temporal variability in reference conditions. This information can then be used in the design, management, and assessment of projects.

VI. Project Description

The project would utilize the existing data and enhanced data which is currently being organized to support the Six-County Aquatic Resources Inventory and would include but not be limited to the following data sources:

A. Federal Resources

1. Data available from USACE and other Department of Defense (DOD) agencies
2. Wetland delineations and other project data available from SPK files, including Regulatory and civil Works products
3. National Wetlands Inventory (NWI) data from USFWS
4. Data available from the Department of Interior (DOI) Agencies, including USFWS, Bureau of Reclamation (BOR), Bureau of Land Management, and U.S. Geological Survey (USGS)
5. NOAA National Marine Fisheries Service (NMFS) data
6. DATA from Department of Agriculture (USDA) agencies, including Forest Service (USFS), Natural Resources Conservation Service (NRCS), and the National Agricultural Imagery Program (NAIP)
7. Other

B. State of California Resources

1. Department of Water Resources (DWR) data
2. Department of Fish and Game (DFG) data
3. California Natural Resources Agency, including the Bay-Delta Conservation Plan
4. California Environmental Protection Agency (CalEPA) data
5. Data from Water Resources Control Board, including Regional Water Quality Control Boards
6. University of California and other Academic resources
7. Other

C. Local Government Resources

1. Current HCPs, as well as HCPs under development, and their associated data
2. SACOG documents and data
3. County Planning and Community Development documents and data
4. Other

D. Private organizations/NGOs

1. The Nature Conservancy
2. Sierra Pacific Resources
3. Bay Institute
4. Private Consultant Firms
5. Other

The CRAM project would serve to qualify and categorize waters in both areas of anticipated impact and potential mitigation. This project would perform a Level 2 assessment which utilizes visible field diagnostics and existing data to assess wetland and riparian sites (CRAM) and would then do Intensive Site Assessment which would provide quantitative field data to calibrate the data procured and the level 2 methodologies, and to test hypotheses about the causes and benefits of habitat conditions.

VII. Broad Project Tasks

- A. Examining Historical Imagery and Documents
 - Will be conducted by USACE and Development Team of the Six County Aquatic Resources Inventory.
- B. Reviewing Administrative records, including Sacramento District files for information as to the location and quality of aquatic resources.
 - Will be conducted by USACE and Development Team of the Six County Aquatic Resources Inventory. The Inventory Development Team will be encouraged to submit files for review and use, as well.
- C. Evaluating, validating and incorporating other natural habitat data sets, including those prepared for HCP's and other regional planning efforts.
 - Will be conducted by USACE and the Development Team.
- D. Ground-truthing existing data sets and conducting field work to collect new data
 - Will be conducted by USACE and the Development Team.
- E. Establishing classification mapping standards.
 - First step of the proposed project to be conducted in accordance with the partnership of the Development Team.
- F. Using a rapid assessment methodology to assess functions.
 - Second step of the proposed project to be conducted in accordance with the partnership of the Development Team.
- G. Utilizing the rapid assessment methodology to assess functions overall to enhance knowledge of restoration and preservation activities.
 - Main outcome of this project to be conducted in accordance with the partnership of the Development Team.
- H. Using GIS for mapping and spatial analysis.
 - To be conducted by the USACE in partnership with the Development Team.
- I. Producing a document, including maps, and GIS data sets for public use.
 - To be conducted by the USACE in partnership with the Development Team.
 - An additional outcome of this proposed project would be a temporal tool to assess functions over time.

VIII. Details of Tasks from the Six County Aquatic Resources Inventory

Please note that these Tasks are noted as Options. Our goal in seeking this CRAM funding would be a stand-alone product which might enhance one of these options, but also have the ability to stand alone.

OPTION TASK 2

3.2. Develop Classification System and Functional Assessment Methodology for Aquatic Resource Types

3.2.1. The objective of this study is to develop a consistent categorization and geospatial characterization of aquatic resources within the Six County Area to aid local, state and federal agencies to make better-informed and efficient decisions regarding proposed development and other activities that affect aquatic resources in the Six County Area. A watershed-level delineation does not replace the need for jurisdictional delineation from the USACE permitting program or the CDFG Section requirements. A key tool in this decision-making process is the ability to not aquatic resources but also to classify each resource occurrence.

3.2.2. As part of this study, The Contractor will develop a uniform classification system in consultation with SPK and the TAC that will classify aquatic resources in the Six County Area, including ephemeral and intermittent tributaries, perennial ponds, lakes, and reservoirs, and wetlands; and all other waters, whether they would be considered hydrologically isolated or waters, such as small ponds and retention basins, and seasonal wetland areas outside of a riparian corridor.

3.2.3. In addition, the Contractor will develop a functional assessment methodology in consultation with SPK and the TAC that will identify a methodology to assign relative values to each occurrence of resource types identified in the study. The assessment methodology is expected to have two components, one for remote or landscape assessment to give a general idea of quality based on connectivity and adjacent land use, and one that will be based on a field-based functional assessment. They can be based on the same system, but it should be apparent in document that they will fulfill two different functions.

3.2.4. To the maximum extent possible, the classification system and functional assessment methodology will be sensitive to and consistent with on-going initiatives in the Six County Area, including HCPs and large-scale mitigation strategies, as well as regional planning efforts, like the SACOG Blueprint and Rural-Urban Connections Strategy (currently in development) and regional transportation plans.

3.2.5. A new requirement put forth by the Federal Geospatial Data Committee (FGDC) Wetland Subcommittee and Wetland Mapping Standard Workgroup in 2007 requires NWI classification for all federally-funded wetland mapping.

All requirements for quality control outlined in the FGDC Working Draft Wetland Mapping Standard (2007) relating to source imagery, detail of the classification, and minimum mapping scale must be met or exceeded by this study.

3.2.6. Limited field testing of the classification system and functional assessment methodology will be conducted by the Contractor to determine effectiveness and efficiency of the systems so that any needed modifications or revisions can be made prior to finalizing the systems. The systems will be reviewed and approved by SPK and the TAC prior to their use in the remainder of the study.

3.2.8. Deliverables

3.2.8.1. Deliverable 4 – Technical memorandum documenting the Classification System developed by the Contractor and approved by the TAC for this study.

3.2.8.2. Deliverable 5 – Technical memorandum documenting the Functional Assessment Methodology developed by the Contractor and approved by SPK and the TAC for this study.

3.2.8.3. Deliverable 6 – Finalize the technical memorandum from Task 1 (Deliverable 3) documenting minimum thresholds for data and consistent formats/resolutions and the reasoning behind those selections.

OPTION TASK 3

3.3 Provide New Datasets to Complete the Full Six County Dataset

3.3.1. During Task 1 activities, the Contractor will begin to identify areas of deficient or missing data that will require additional action by SPK, the TAC, or the Contractor in order to complete the full Six County dataset. Following completion of Task 1 and Task 2, assignments will be given to develop or procure additional datasets between SPK, TAC participants, and the Contractor based on factors such as available funding streams or parallel efforts within the region.

3.3.2. Deliverables

3.3.2.2. Deliverable 7 – Develop or procure datasets assigned to the Contractor to fill in areas of deficient or missing data.

OPTION TASK 4

3.4. Identification and Interpretation of Aquatic Resources using Remote Sensing Techniques

3.4.1. Using those data sets from Task 1 and Option Task 3 that are carried forward to develop the resource inventory baseline dataset, the Contractor will develop a baseline geo-database to conduct the identification and mapping of aquatic resources within the Six County Area.

3.4.2. The Contractor will identify and map resources within the Six County Area in GIS using the datasets gathered in Tasks 1 and 3. The resources will be identified and mapped based on the mapping protocols outlined in the technical memorandum prepared for Deliverable 6 and using the classification system laid out in the technical memorandum prepared for Deliverable 4.

3.4.3. Identification of resources is anticipated to be carried out by interpretation of high-resolution ortho-photo imagery and USGS topographic quadrangles, evaluation of fluvial geomorphic function of watershed basins and sub-basins, and classification of vegetation types based on current California classification systems such as Holland or Cowardin. Other remote-sensing techniques may be used as are deemed appropriate for this study following discussion with and approval by SPK and the TAC.

3.4.4. The Contractor will also begin conducting a remote or landscape level assessment of resource quality utilizing the functional assessment methodology to be developed for Task 2. The assessment output datasets will be added to the baseline geo-database.

3.4.5. Electronic and paper copies of draft resource identification and mapping products will be submitted at the 35 percent, 60 percent, and 90 percent levels of completion by the Contractor to SPK and the TAC for review and comment.

3.4.3. Deliverables

3.4.3.1. Deliverable 8 – Baseline geo-database containing datasets carried forward from Task 1 and Option Task 3 to be used to classify and map aquatic resources within the Six County Area.

3.4.3.2. Deliverable 9 – Datasets representing remote or landscape assessment of resource quality for all resources based baseline data.

3.4.3.3. Deliverable 10 – resource identification and mapping products from remote sensing effort at the 35 percent (Deliverable 10a), 60 percent (Deliverable 10b), and 90 percent (Deliverable 10c) level of completion.

OPTION TASK 5

3.5. Field Verification and Aquatic Resource Assessment

3.5.1. The Contractor will formulate a field verification and resource assessment program in consultation with SPK and the TAC. The processes identified in this program will be used to verify the classification of the resources identified remotely in Task 4 and to assign field-based functional quality scores to these resources based on the functional assessment methodology developed in Task 2. Due to the large area covered by this study, a representative sampling of locations is expected to be used to assign values to the other resources not visited in the field. The sampling size and locations will be determined in consultation with SPK and the TAC.

3.5.2. Field verification assignments will be shared between SPK, TAC participants, and the Contractor based on factors such as available funding streams or parallel efforts within the region. To the extent possible, the field verification teams will utilize technology in the field that will allow for real-time digital revisions to resources delineated and mapped by GIS in Task 4.

3.5.3. Deliverables

3.5.3.1. Deliverable 11 – Technical memorandum documenting the field verification and resource valuation program for this study.

3.5.3.2. Deliverable 12 – Updated GIS data layers and maps presenting the changes made to resources mapped remotely. Revisions shall be submitted to SPK and the TAC for review and coordination at the 35 percent (Deliverable 12a), 60 percent (Deliverable 12b), and 90 percent (Deliverable 12c) levels of completion.

IX. Milestone Schedule

Table 1: Deliverables Schedule

Task #	Deliverable #	Deliverable Title	Days due from Task Notice to Proceed
1	1a	35% Inventory List of Existing Data	15 days
1	1b	60% Inventory List of Existing Data	30 days
1	1c	90% Inventory List of Existing Data	45 days
1	1d	100% Inventory List of Existing Data	60 days
1	2	Develop and Maintain a Geo-database for study datasets	90 days
1	3	Draft technical memorandum documenting SPK and stakeholder decisions justifying the need for new datasets	90 days

Task #	Deliverable #	Deliverable Title	Days due from Task Notice to Proceed
Option 2	4	Technical memorandum documenting the study's Classification System	60 days
Option 2	5	Technical memorandum documenting the study's Functional assessment methodology	90 days
Option 2	6	Final technical memorandum documenting SPK and stakeholder decisions justifying the need for new datasets	105 days
Option 3	7	Develop or procure datasets assigned to the Contractor to fill in areas of deficient or missing data.	180 days
Option 4	8	Baseline geo-database containing datasets carried forward from Task 1 and Option Task 3 to be used to classify and map aquatic resources within the Six County Area.	60 days
Option 4	9	Datasets representing remote or landscape assessment of resource quality for all resources based baseline data.	120 days
Option 4	10a	Remote sensing map products at 35% level of completion	145 days
Option 4	10b	Remote sensing map products at 60% level of completion	160 days
Option 4	10c	Remote sensing map products at 90% level of completion	190 days
Option 5	11	Technical memorandum documenting the field verification and resource valuation program for this study.	60 days
Option 5	12a	35% revisions to GIS layers and maps based on field verification	120 days
Option 5	12b	60% revisions to GIS layers and maps based on field verification	180 days
Option 5	12c	90% revisions to GIS layers and maps based on field verification	210 days
6	13	Technical Report summarizing actions taken to accomplish the data collection, analysis, and resource identification and mapping efforts. The report will also include a discussion of results and conclusions.	360 days
7	14	Bi-weekly meetings, to be held by teleconference, except one per month in Sacramento, CA.	Through life of contract
7	15	Monthly progress reports (1-2 pages) to be submitted to the Project Manager.	Through life of contract

X. The Development Team or TAC

The Development Team or TAC consists of representatives from USACE, USEPA, USFWS, SACOG, and a key staff from the various HCPS from around the 6-County Region.

XI. Project Need

The Six-County Sacramento Region is committed to encouraging a more informed approach to mitigation. This project aims to inform an environmentally superior approach to mitigation of impacts via

integration of the compensatory mitigation rule, and a resources.

commensurate view of the quality and quantity of our

XII. National or Regional Priority Areas

The National and Regional Area of Priority for this proposal are linked to EPA's National priority for Refining the Protection of Vulnerable Wetlands and Aquatic Resources and specifically to support projects for research/studies to support the development of effective ecological performance standards for compensatory mitigation sites. The Regional Priorities addressed by this project include the adoption of policies and procedures that clarify wetland protection, restoration and compensatory mitigation and addresses and evaluation of the compensatory mitigation effectiveness and development of mechanisms to improve compensatory mitigation effectiveness, compliance and adaptive management and

development of tools that assist evaluation of jurisdiction under the Clean Water Act. The project also addresses the California specific priority of developing state program compensatory mitigation approaches that align with and complement the aforementioned federal mitigation requirements.

XIII. Project Goals and Objectives

This project is directly linked to EPA's stated objective of supporting Healthy Communities via the restoration and protection of the ecosystem. SACOG's intent in conducting this rapid assessment is to inform the most responsible way in which the Six-County region will grow and, perhaps more importantly, how it will address the need to mitigate for the impacts due to transportation in a meaningful and environmentally superior way.

SACOG expects that the results of this project will be used by our Federal, State and Local partners. Expected outputs would be a qualitative and quantitative inventory which would address both historical and baseline conditions and a platform which could be modified so that the information is temporal. Additionally, SACOG staff might integrate the findings into a PLACEs model, allowing for the economic benefit of mitigation to be realized, as well.

The anticipated environmental improvement would be established via the baseline of historic and current conditions and those findings being integrated into planning and project level documents. Success should be tracked in a temporal fashion on a regular basis, e.g., updates to SACOG's MTP.

Additionally, this plan could stand alone, but would ultimately serve as a component to the Six County Aquatic Resources Inventory.

SACOG planning staff would serve to convene, store, and make "live" the process and the findings of this project. SACOG has a strong reputation for project delivery and delivery of proposed outcomes. SACOG will work via the SACOG Board structure to identify partnerships in local government. Additionally, SACOG will utilize the practices learned via Blueprint to develop less formalized, yet critical, partnerships for this project.

SACOG has a strong history of developing platforms which are exportable for use by others. Through the course of this project SACOG will endeavor to integrate best practices and be collaborative in the scope of this project such that in the end, the project also informs a product which can be utilized by others.

SACOG does not believe that the intended project has the capacity to introduce or spread invasive species.

XIV. Overview of the Six County Aquatic Resources Inventory

Over the last 20 years, the Counties of El Dorado, Placer, Sacramento, Sutter, Yolo and Yuba Counties have experienced significant growth. Collectively, these counties are referred to as the Six County Area. Generally, the trend has been for development moving away from the traditional urban areas into rural/natural environments. In recent years, in response to current and projected growth, a number of regional planning initiatives have been instituted. While these initiatives examine important growth

considerations, no single effort involves a comprehensive evaluation of the quality and quantity of aquatic resources in the Six County Area.

Without the benefit of a regional assessment of aquatic resources, the Sacramento District (SPK) of the U.S. Army Corps of Engineers (USACE) must rely on case-by-case evaluations to make permit decisions. Depending on a project's complexity, these evaluations may take significant time and effort, especially in assessing indirect and cumulative effects and determining appropriate compensatory mitigation for impacts to aquatic resources. The lack of a regional assessment has also limited the ability of SPK and other agencies to fully implement a watershed approach to compensatory mitigation, which is the goal of the 2008 Compensatory Mitigation Rule.

The purpose of the proposed work is to inventory aquatic resources found in the Six County Area, including ponds, lakes, streams, wetlands and other bodies of water. The study will identify, characterize, and classify aquatic resources through a combination of watershed assessment, remote sensing, spatial analysis, and field work, similar to that required for a Special Area Management Plan. To the extent possible, the study will incorporate existing data sets and be sensitive to and consistent with on-going initiatives in the Six County Area, including Habitat Conservation Plans (HCPs) and large-scale mitigation strategies, as well as regional planning efforts, like the Sacramento Area Council of Governments' (SACOG) Blueprint, Rural-Urban Connections Strategy, and regional transportation plans.

The aquatic resources inventory is intended to be used by local, state and federal agencies to make better-informed and efficient decisions regarding proposed development and other activities that affect aquatic resources in the Six County Area. Once completed, the aquatic resources inventory will be used to develop a permitting strategy that encourages less damaging development activates through the use of general permits and/or letters of permission. In addition, SPK, the U.S. Environmental Protection Agency (USEPA) and the U.S. Fish and Wildlife Service (USFWS) will be able to use the inventory to help assist in the evaluation of cumulative impacts and determine appropriate compensatory mitigation within a regional and watershed context. State and local agencies, including cities and counties responsible under the California Environmental Quality Act, may also opt to incorporate the inventory into General Plans and Specific Plans. The inventory is intended to enhance accuracy, consistency and predictability in planning and regulatory practices.

The aquatic resources inventory will be designed to be exportable to other areas of the country. Ideally, the work done by SPK will showcase how a regional inventory of aquatic resources can contribute to overall better land use decisions through measurable regulatory incentives for less environmentally damaging projects, allowing for substantive conservation strategies to be economically feasible.