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DWR WAREHOUSE

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MIDDLE CREEK MARSH RESTORATION PROJECT
EXECUTIVE SUMMARY

Applicant: Lake County Flood Control
and Water Conservation District
255 N. Forbes Street
Lakeport, CA 95453
(707)263-2341
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The Middle Creek Marsh Restoration Project (Project) is one step in the process of restoring damaged habitat and the water quality of the Clear Lake watershed. The Project is located at the north end of Clear Lake in the area bounded by State Highway 20 and Rodman Slough. Clear Lake is the headwaters of Cache Creek, a tributary of the Bay-Delta. The Project consists of reconnecting Scotts and Middle Creek to the historic Robinson Lake wetland and floodplain areas by breaching the existing levee system to create inlets that direct flows into the historically flooded area, see attached exhibit. Up to 1,218 acres of wetland habitat are proposed for restoration.

This request is for partially funding of the Lake County Flood Control and Water Conservation District's (District) share of a Feasibility Study to be prepared by the U.S. Army Corps of Engineers (USACE). Portions of the Feasibility Study may be subcontracted by the USACE. The Feasibility Study will take two years to complete, after which, future phases of the Project may begin. Future project phases include property acquisition, design, and construction.

The Project will restore up to 1,218 acres of wetland habitat, including open water, seasonal wetlands, instream aquatic habitat, shaded aquatic habitat, and perennial wetlands. Additional upland habitat may be protected adjacent to the wetland and stream areas. The Project would significantly increase the habitat available for migratory waterfowl and numerous listed species. Significant water quality improvement is anticipated in Clear Lake due to the sediment and phosphorus removal capabilities of the Project. Diversion of flows through the wetland area are estimated to reduce the phosphorus load to Clear Lake by up to 28 percent. The resulting reduction in chlorophyll and organic carbon in the Lake are anticipated to be significant, which would also improve the quality of water flowing in Cache Creek to the Bay-Delta.

The total cost of the Feasibility Study is estimated at $940,000. The USACE will provide half the costs, or $470,000. The County of Lake, through the District and Lakebed Management, will provide $100,000 in cash and $28,554 in in-kind services. CALFED funding of $341,446 is being requested. The Feasibility Study will take two years to complete, including NEPA and CEQA documentation. The total Project cost, including all phases, may be as high as $18.8 million, depending on the alternative selected in the Feasibility Study.

The District does not have the financial capability to complete the project without funding partners. CALFED was selected as a funding partner as this project is consistent with the CALFED goals of habitat restoration and water quality improvement. The District is currently developing partnerships with other agencies and organizations, however, commitments will be easier to obtain once a Feasibility Study is completed. Additional partnerships will be necessary to complete the project.

Significant flood control benefits will be realized by removing up to 25 homes from the project area. These homes are protected by a substandard levee which is susceptible to overtopping during a 35 year flood event. Homes were evacuated in 1983 and 1986, with evacuation imminent in 1995. Flood fight costs are high to protect the primarily agricultural area.

Third party impacts will be primarily to existing infrastructure, primarily roads, including County and State, and utilities, including electrical transmission lines, wastewater force main, and telephone lines. Agricultural land will be removed from production and up to 25 homes may be relocated. Property tax revenues will decrease due to the property acquisition requirements. Improved water quality in Clear Lake will improve property values around the lake offsetting this loss of revenue. Improved water quality will also increase tourism revenues by as much as $7 million per year in Lake County. The Project will have an unknown, and possibly beneficial, impact on vector control issues in the area. Appropriate mitigation for the third party impacts will be identified during the Feasibility Study.

The District is a division of the Lake County Department of Public Works, which administers hundreds of thousands of dollars of grants each year for infrastructure improvement. The District has a proven track record with the U.S.D.A. Forest Service, the U.S. Environmental Protection Agency and the State Water Resources Control Board with administering and completing grant projects. The USACE has a proven track record in environmental restoration projects in the Bay-Delta watershed, including the Yolo Wetlands project immediately upstream of the Bay-Delta.

The District has an ongoing watershed improvement program in the Clear Lake watershed, including watershed assessment and watershed management activities. This Project is part of the overall process of improving the health and water quality in the Clear Lake watershed .

Several local and state government agencies and organizations have ongoing monitoring programs in the Clear Lake watershed. This data is shared annually at the Clear Lake Symposium sponsored by the University of California, Davis. Prior data has already shown the value of marsh systems for removing sediment flowing into Clear Lake and show evidence of increased sedimentation when the project area was "reclaimed".

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U.S. Army Corps of Engineers, Sacramento District
Lake County Lakebed Management

RFP Project Group 3: Services
Aquatic and Terrestrial Habitat Restoration
Water Quality

MIDDLE CREEK MARSH RESTORATION PROJECT
PROJECT DESCRIPTION

Project Description

The Middle Creek Marsh Restoration Project (Project) is one step in the process of restoring damaged habitat and the water quality of the Clear Lake watershed. Reconnection of this large, previously reclaimed area, as a functional wetland is anticipated to have a significant affect on the watershed health and the water quality of Clear Lake.

At the request of the Lake County Flood Control and Water Conservation District (District), the U.S. Army Corps of Engineers (USACE) completed an Ecosystem Restoration Reconnaissance Study for the Project in May 1997. The District and the USACE are actively pursuing the Project. Four phases of the Project must be completed, the Feasibility Study, Design, Property Acquisition, and Construction. This request is for a portion of the District's share of the Feasibility Study cost.

Project Location

The Project is located at the north end of Clear Lake in the area bounded by State Highway 20 and Rodman Slough, see location map. Clear Lake is a large, natural, shallow, eutrophic lake. It is the headwaters of Cache Creek, a tributary of the Bay-Delta. The Scotts Creek and Middle Creek watersheds, which comprise approximately one half of the Clear Lake watershed, drain through Rodman Slough adjacent to the project area. These two watersheds provide 57 percent of the inflow and 71 percent of the phosphorus loading to Clear Lake. Twelve hundred eighteen acres of "reclaimed" wetlands are located in the Project area.

Expected Benefits

The Project would provide the following habitat benefits:

- Restore up to 1,218 acres of the of the 7,520 acres of historic wetlands in the Clear Lake Basin which have either been lost or severely impacted. This is up to an 81 percent increase in the existing wetland habitat. Of the historic 7,520 acres of freshwater wetlands which existed in the Clear Lake Basin, approximately 80 percent have been lost or severely impacted. Restored habitat includes open water, seasonal wetlands, instream aquatic habitat, shaded aquatic habitat, and perennial wetlands. Additional upland habitat may be protected adjacent to the wetland and stream areas.
- Provide a significant increase in habitat for fish and wildlife. This Project would greatly improve the bird nesting habitat and increase the available spawning habitat for native and non-native fish. The area is currently used extensively by migratory waterfowl.
- Preserve the fish and wildlife resources and the cultural resources in the project area.
- Several special-status wildlife species would benefit from the creation of wetland, open water, and riparian habitats in the expanded floodplain. Some species include the California red-

legged frog, northwestern pond turtle, American white pelican, double-crested cormorant, western least bittern, osprey, white-tailed kite, bald eagle, northern harrier, Cooper's hawk, American peregrine falcon, California yellow warbler, yellow-breasted chat, tricolored blackbird, fringed myotis, long-eared myotis, long-legged myotis, pallid bat, and Townsend's western big-eared bat.

The Project will reduce the amount of sediment and nutrient inputs to Clear Lake producing the following water quality benefits:

- Sediment is the primary nutrient source (97 percent of the total phosphorus load is sediment bound) contributing to the cultural eutrophication of Clear Lake;
- Approximately 71 percent of the phosphorus entering Clear Lake is from Scotts and Middle Creeks. It has been estimated that the Project would remove up to 40 percent of phosphorus entering Clear Lake from Middle and Scotts Creeks;
- Reduced phosphorus concentrations in Clear Lake would potentially reduce the chlorophyll concentrations by 33 percent. A corresponding reduction in total organic carbon would also be realized; and
- Improved water quality in Clear Lake will reduce the amount of carbon being discharged to Cache Creek and the Bay-Delta.

Flood Control benefits include:

- Reduce flood risk by removing structures at risk of severe flooding as a result of levee failure. The levees proposed for abandonment have settled up to three feet below design grade. The levees are at risk of overtopping during a 35 year flood event, unless emergency flood fight measures are implemented. The area was evacuated in 1983 and 1986, with evacuation imminent in 1995.
- The District currently maintains the Middle Creek Flood Control Project. The Project would remove approximately three miles of substandard levees from the Flood Control Project. These levees are the most prone to failure during a major flood event. The Project would result in lower O&M and emergency response costs for the District and cooperating State and Federal agencies.

Third party benefits are:

- Enhance recreation and tourism by improving the water quality in Clear Lake. In 1994, the U.S.D.A. Soil Conservation Service estimated that $7 million in tourism is lost annually due to water quality issues in Clear Lake.

- The Project will have an unknown, and possibly beneficial, impact on vector control issues in the area. Several hundred acres of rice fields and flood irrigated pasture will be replaced by a diverse wetland and riparian community. Natural predators may result in lower insect production in the area.
- The Project is consistent with the goal of eradicating hydrilla in Clear Lake.

Background and Biological/Technical Justification

In July 1994, the Phase 1 Clean Lakes Diagnostic/Feasibility Study for Clear Lake, The Causes and Control of Algal Blooms in Clear Lake, was completed. Sediment nutrients are primarily responsible for the cultural eutrophication of Clear Lake and the resulting chronic blue-green algal blooms. The Clean Lakes Study identified a significant degradation in Clear Lake's water quality between 1920 and 1940. The Clean Lakes Study recommends numerous actions be taken to reduce the frequency and magnitude of the blue-green algal blooms. The County of Lake adopted an Implementation Plan on July 19, 1994 identifying the recommended actions and a time line for their implementation. This Project is one step in reducing the nuisance blue-green algal blooms in Clear Lake by addressing one of the problem sources within the watershed.

As part of the Implementation Plan, the District is currently implementing stream bank rehabilitation projects and actively encouraging the implementation of erosion control projects within the Clear Lake watershed. The District is cooperating with the U.S.D.A. Forest Service and the U.S.D.I. Bureau of Land Management in improving management of the watershed. This is part of the District's efforts to improve the watershed health of the Clear Lake watershed and improve the quality of Clear Lake. Improved watershed health will contribute to improved health of the Bay-Delta.

The Middle Creek Marsh (Robinson Lake) area was "reclaimed" in between 1918 and 1940 by constructing levees, creating a slough and reclaiming approximately 1,020 acres of lake bottom and shoreline wetlands for agricultural purposes. In 1958, the USACE added to the levee system, reclaiming an additional 200 acres of shoreline wetlands. These projects resulted in the physical isolation of over 1,700 acres of marsh and floodplain from the largest tributaries of Clear Lake. A recent sediment core collected by the University of California, Davis (UCD), shows an abrupt increase in sedimentation rates around 1925, corresponding to the beginning of the large scale reclamation of Robinson Lake.

In May 1996, the USACE began a Reconnaissance Study (Study) for the environmental restoration of the historical wetland area. The Study was completed in May 1997. The Study evaluates six alternative projects, ranging from No Project to restoration of 1,218 acres of wetland habitat.

The Project consists of reconnecting Scotts and Middle Creek to the historic Robinson Lake wetland and floodplain areas by breaching the existing levee system to create inlets that direct flows into the

historically flooded area, see attached exhibit. Diversion of flows through the wetland area are estimated to reduce the phosphorus load to Clear Lake by 40 percent. Based on Vollenweider's phosphorus mass-balance model, this would result in a 28 percent decrease in the phosphorus levels in Clear Lake, and a 33 percent decrease in chlorophyll levels.

The Study recommends three of the alternative projects be considered during the Feasibility Study. The alternates all include reconnecting the area adjacent to Clear Lake and Rodman Slough, with the primary difference being the northern end of the Project area. The attached table shows a comparison of these three alternatives showing the habitat and estimated water quality benefits of each alternative.

Proposed Scope of Work

The Reconnaissance Study evaluated six alternative plans for the project area and recommends three feasible alternative plans be evaluated in detail. The following three phases remain in the Project:

- Feasibility Study: The Study will evaluate each of the three alternative plans in detail to determine which is the most cost effective and cost efficient. Additional studies are necessary to fully evaluate impacts to water quality, wildlife, cultural resources, vectors, and additional sediment control measures. Environmental review as required by NEPA and CEQA will also be conducted in this phase.
- Design: Detailed plans and specifications will be developed by the USACE for the alternative selected in the Feasibility Study.
- Significant land acquisition will be required, including relocation of up to 25 residents. Land acquisition and relocation will be according to Federal requirements.
- Construction: The Project will be constructed. The USACE will administer the construction contract, while contracting out the actual construction work.

Monitoring and Data Evaluation

Existing monitoring programs will be continued and expanded as necessary to fully evaluate the Project.

- The California Department of Water Resources (DWR) currently conducts monthly and semiannual water quality monitoring of Clear Lake. This data collection began in 1968 and has been revised to meet the needs of the State and County over the years.
- The District has performed stream water quality monitoring (primarily sediment and phosphorus) during high flow events since 1992. This monitoring program will be continued and expanded as necessary.
- Lake County Lakebed Management has conducted lake sediment monitoring and some water quality monitoring to supplement the DWR data. The sediment data monitors the nutrient

cycling role of the deep lake sediments. In addition, annual elevation data is collected at major tributaries to monitor buildup of the creek deltas in Clear Lake.

- During Summer 1997, UCD conducted a biomass monitoring project in the lake. This program has not yet been evaluated for its effectiveness and may be continued in future years.
- The Reconnaissance Study makes several specific recommendations on modifications and additions to the existing monitoring. These recommendations will be implemented by the County and USACE prior to and during the Project.
- UCD is conducting extensive monitoring in Clear Lake for evaluation of mercury contamination from the Sulphur Bank Mine. Some of the data collected has been useful in evaluating the anthropomorphic impacts on Clear Lake.
- The Lake County Vector Control District conducts an extensive monitoring program of the numerous insect species within Lake County. Their monitoring program will be valuable in assessing the Project's impacts on the ecosystem.

The data from the various monitoring programs is used to track limnological changes and monitor sediment and nutrient inputs into Clear Lake. Analyses of the data and related conclusions will be offered for review by all organizations conducting monitoring and research on Clear Lake. As part of the Project, a technical advisory committee (TAC) will be formed of these organizations to evaluate the monitoring program and data analyses.

On September 13, 1997, UCD will sponsor the First Annual Clear Lake Science and Management Symposium in Lakeport. The Symposium will offer a forum for the presentation and discussion of past, present and future studies associated with Clear Lake and the surrounding watershed. Presentations on the results of scientific investigations, monitoring programs, watershed/lake management projects, and similar technical subjects will be made. In addition to the TAC, the symposium will facilitate the exchange of data and ideas among all the involved agencies and organizations conducting monitoring, research and management in the Clear Lake Basin.

Implementability

The Project will comply with Federal and State environmental laws, with the NEPA and CEQA compliance documents being prepared in the next phase of the project. No hazardous materials conditions were identified during the Reconnaissance Study, therefore, will probably not be a major issue. Several cultural sites have been identified in the project area. Impacts are anticipated to be minimal or beneficial and will be coordinated with the local Native American tribal organizations.

Property acquisition is a major component of the project. Because of the high flood risk, numerous property owners have already expressed a willingness to sell their property for the project. Depending on the alternative selected, up to 1,218 acres of land may be removed from the tax roles. This land is in agricultural or rural residential uses.

The project must be coordinated with the County Road Department's plan to reconstruct portions of the Nice-Lucerne Cutoff, as it will be impacted by the Project. As both projects are being administered by the Department of Public Works, coordination is not anticipated to be a major issue. Depending on the alternative selected, the project will have to be coordinated with the California Department of Transportation and/or Pacific Gas and Electric. Initial contacts have been made during the Reconnaissance Study, with additional coordination being required as the project develops. The Project must also be coordinated with the Robinson Rancheria, which has property on both sides of the Project. Initial contacts have been made with the Rancheria.

It is anticipated that the Project will impact the Clear Lake ecosystem quickly. The project area was active freshwater marsh less than 80 years ago and already has significant quantities of native wetland vegetation in the project area. The existing vegetation and the inherent soil properties will facilitate rapid re-establishment of the native habitat.

Water quality improvement in Clear Lake should be fully realized within 10 years, with some improvement almost immediately apparent. Improved regulation of instream gravel mining was implemented in 1980, with instream mining decreasing each year until 1991, when all instream mining ceased. The clarity of Clear Lake improved significantly in 1991, and has been the clearest in recent memory for the last three or four years. We anticipate the reduced phosphorus loading to Clear Lake after the Project is constructed to become apparent within a similar time frame.

The County has already begun the public involvement in the project. As required with all USACE projects, public meetings are held on a regular basis. In addition, the County has made numerous news releases related to this project, provided information to the Lake County Coordinating Resource Management Committee (RMC), met with local property owner groups and the Robinson Rancheria.

MIDDLE CREEK ECOSYSTEM RESTORATION
COMPARISION OF ALTERNATIVES

Alternates	2 - Full Restoration	3 - Bloody Island to Clear Lake	4- Reclamation Road to Clear Lake
Increase in Habitat, acres			
Open Water	225	225	225
Marsh (perennial wetland)	303	303	193
Marsh/Riparian (instream and and shaded aqautic habitat)	538	457	224
Seasonal Wetland	152	21	24
Upland	480	164	147
Total	1,218	1,006	666
Water Quality Improvement			
Phosphorus Removal, %	40	33	25
Chlorophyll Reduction, %	28	17	6
Estimated Cost, $K			
Feasibility Study	$900	$900	$900
Design Engineering	$684	$718	$554
Property Acquisition	$11,005	$7,300	$5,200
Construction Engineering	$485	$509	$391
Construction	$5,706	$5,910	$4,615
Total Cost, $K	**$18,780**	**$15,337**	**$11,660**

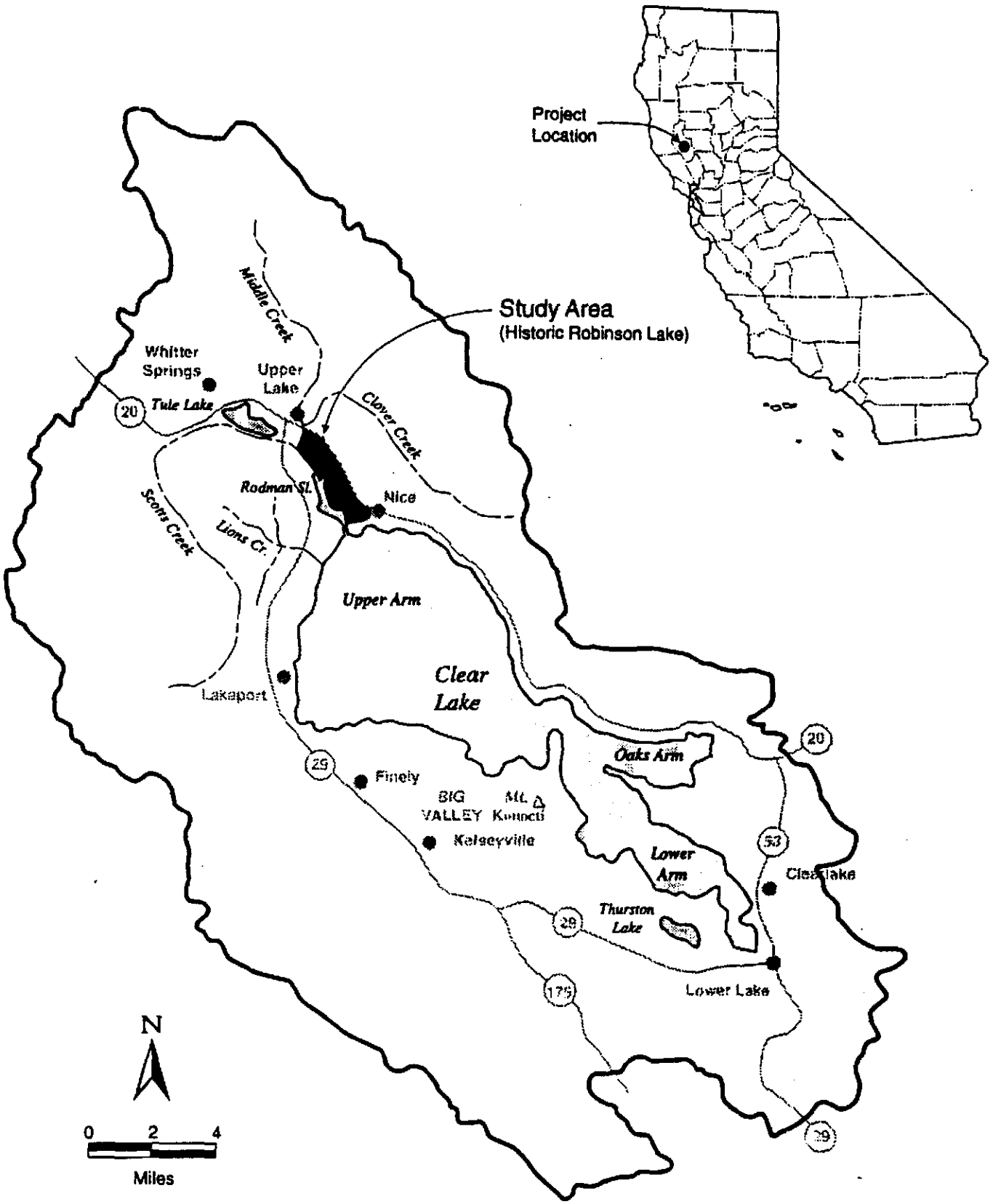

Figure 2.1
Project Study Area Location Map

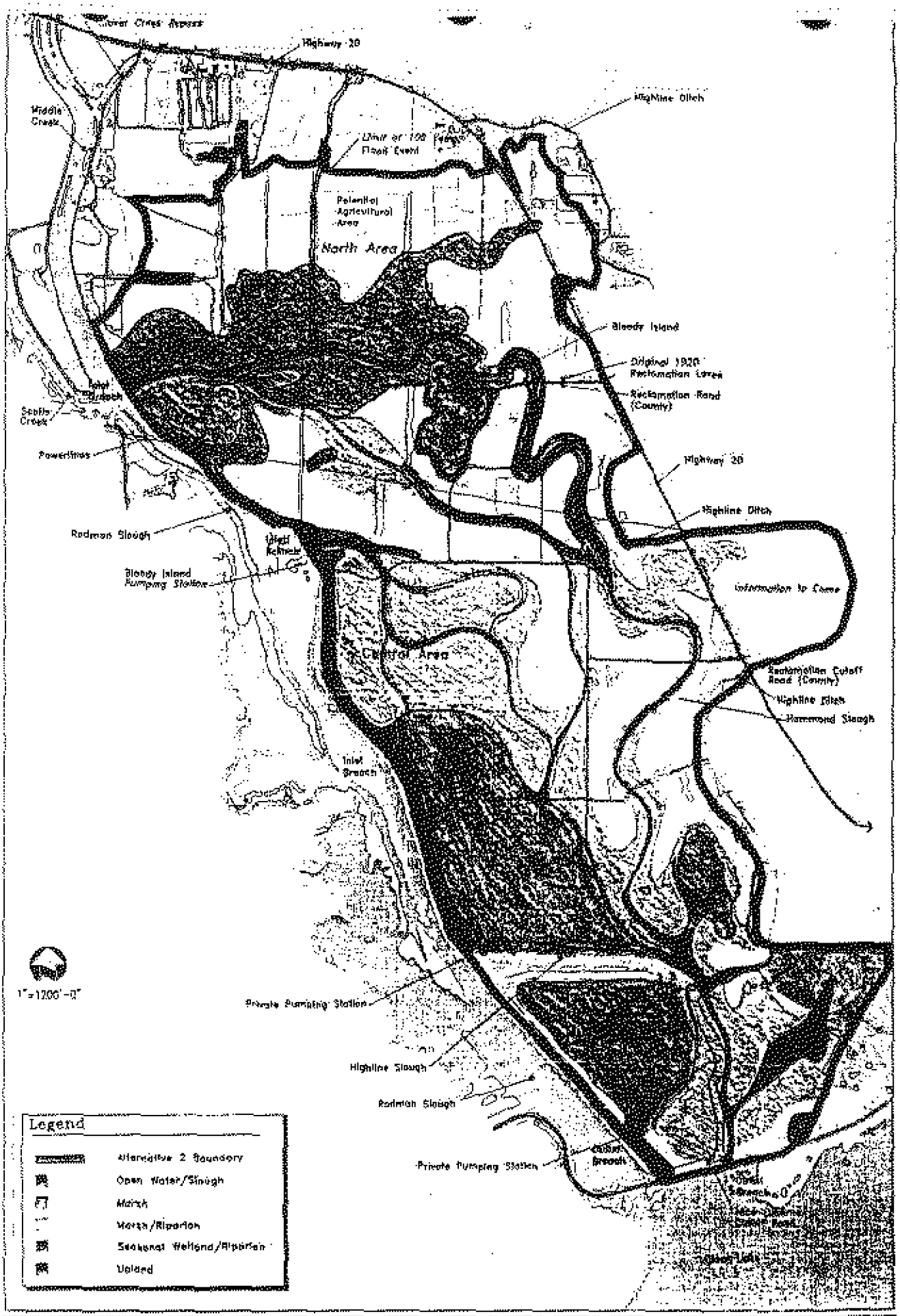

Figure 4.1

Jones & Stokes Associates Inc.

Alternative 2. Restoration of Robinson Lake to the 100 Year Floodplain - Multiple Breaches

MIDDLE CREEK MARSH RESTORATION PROJECT
COST AND SCHEDULE

The Middle Creek Marsh Restoration Project (Project) is a cooperative effort between the Lake County Flood Control and Water Conservation District (District), the U. S. Army Corps of Engineers (USACE), the California State Reclamation Board (Board), and the Robinson Rancheria (Rancheria). The District originally requested the Project be evaluated by the USACE in 1995. A Reconnaissance Study was funded and begun in May 1996. The Study was completed in May 1997 and recommends three alternative projects be evaluated in a Feasibility Study. The Reconnaissance Study was completely funded by the USACE, however, future phases of the project will be cost shared 50/50 with the Project Sponsor (the District).

The Project is currently funded under the General Investigation program, however, legislation authorizing the project under the Section 1135 Program has been requested. Should the Project be authorized under the Section 1135 program, the cost split will be revised to 75 percent Federal/25 percent Sponsor. Pursuit of Section 1135 authorization will reduce Sponsor costs significantly, as well as facilitate rapid implementation of the Project.

Essentially all phases of the project will be contracted through the USACE. The USACE will follow its standard procedures, as required by its regulations. The County, through the District and Lakebed Management, will provide the existing water quality monitoring program as project match. These costs are estimated at $14,277 per year for the water quality monitoring program. In addition, the District has budgeted $100,000 in Fiscal Year 1998 to pay a portion of the Sponsor's share of the Feasibility Study.

Attached is the cost breakdown for preparation of the Feasibility Study. Based on the current commitments, we are requesting $341,446 in funding support from CALFED for preparation of the Feasibility Study. Funding for operation and maintenance costs are not being requested. The District's administrative costs during preparation of the Feasibility Study are estimated at $35,176. Reimbursement of these administrative costs are not being requested.

The District is requesting financial assistance from CALFED for this project as it meets the stated goals of the CALFED process of habitat restoration and water quality improvement. Because of the large commitment of Sponsor capital necessary to complete the project, $5.8 to $9.4 million, the District is requesting partners to assist in completion of the Project. Partners may include the Robinson Rancheria, the California State Reclamation Board, the Environmental Protection Agency, non-profit organizations, etc. Obtaining commitments from partners will be facilitated by completion of the Feasibility Study. Therefore, the District is requesting assistance from CALFED to complete the Feasibility Study.

As discussed above, under current funding guidelines, approximately half of the cost for future phases of the project are the responsibility of the Project Sponsor, the District. The District will be requesting CALFED to provide a significant portion of the costs for land acquisition and project construction. These costs are beyond the District's ability to pay, without the development of partners. Until costs are further refined in the Feasibility Study and the best alternative is selected for proceeding with design and construction, accurate estimates of future CALFED funding requests are unknown.

Schedule Milestones

The Feasibility Study is scheduled to begin in October 1997, pending approval of the Federal budget. Public workshops and progress meetings will occur throughout the Study process, which should be completed by September 1999.

Progress payments will be made on a quarterly basis based on actual work completed.

Third Party Impacts

Essentially all the property located below the normal high water mark require purchase by the State/District. This will remove up to 1,220 acres from agricultural production, primarily wild rice and grazing, and residential use, primarily single family residential. These properties will also be removed form the County tax rolls, reducing revenue to the State, the County and the District. Infrastructure impacts include roads, both County and State, electrical transmission lines (PG&E), other utilities, such as telephone lines and wastewater piping. The Project may require elevation and/or relocation of the facilities. Appropriate mitigation measures will be determined during the environmental review process in the Feasibility Study.

PROJECT COST ESTIMATE

Alternate / Project Phase, SK	2 - Full Restoration	3 - Bloody Island to Clear Lake	4- Reclamation Road to Clear Lake	Schedule, after beginning of phase
Feasibility Study	$900	$900	$900	2 years
Design Engineering	$684	$718	$554	1 year
Property Acquisition	$11,005	$7,300	$5,200	1 year
Construction Engineering	$485	$509	$391	3 years
Construction	$5,706	$5,910	$4,615	3 years
Total Cost	**$18,780**	**$15,337**	**$11,660**	**7 years**

FEASIBILITY COST BREAKDOWN

Agency	Feasibility Study Cost
Lake County Flood Control and Water Conservation District	$100,000
Lake County Flood Control and Water Conservation District - Stream Water Quality Monitoring	$10,724
Lake County Lakebed Management - Lake Water Quality Monitoring	$17,830
U. S. Army Corps of Engineers	$470,000
CALFED	$341,446
Total Cost	**$940,000**

MIDDLE CREEK MARSH RESTORATION PROJECT
APPLICANT QUALIFICATIONS

The Lake County Flood Control and Water Conservation District (District) is a separate political subdivision of the State of California. The District is administered by the Lake County Department of Public Works, including oversight and accounting functions. In the District's efforts to improve the Clear Lake watershed, it has successfully obtained and completed the following EPA grants:

1978: Watershed Management Planning, Section 208
1990: Clear Lake Diagnostics/Feasibility Study, EPA Clean Lakes Program, Section 314
1993: Scotts Creek Watershed Demonstration Project, EPA Nonpoint Source, Section 319

The District is working on an EPA Watershed Assessment Grant, Section 205j, for conducting a watershed assessment grant for Clear Lake. The District also has ongoing grants with the U.S.D.A. Forest Service for watershed assessment and watershed rehabilitation.

The Project Manager will be Thomas R. Smythe, Water Resources Engineer. Mr. Smythe has a Bachelor of Science Degree in Civil Engineering and a Master of Science in Environmental Engineering. Mr. Smythe has been an employee of the District and County for ten years. Mr. Smythe was instrumental informing the Lake County Coordinating Resource Management Committee in 1989 and obtaining the EPA Clean Lakes Grant. Mr. Smythe was the project manager for the Clean Lakes Grant. Mr. Smythe has been the primary contact with the U.S. Army Corps of Engineers (USACE) during preparation of the Middle Creek Marsh Reconnaissance Study and is familiar with the project and USACE procedures. Mr. Smythe has also been responsible for tracking the CALFED process for Lake County and is familiar with the CALFED goals and objectives.

Assisting Mr. Smythe will be Carol Bordin. Ms. Bordin begins employment with the District on August 4, 1997. Ms. Bordin has a Bachelor of Science Degree in Zoology. Ms. Bordin has extensive experience administering grants in her previous employment in Washington State. Ms. Bordin has worked extensively in restoring watersheds with public education, riparian restoration, and other watershed management projects.

Project accounting will be by the Public Works accounting staff. The accounting staff will track all costs using project accounting software. The staff handles several hundred thousand dollars of miscelaneous grants each year, including public road, public safety and District grants. The accounting staff is familiar with grant requirements and the necessary project tracking. The Public Works accounting system is audited annually to ensure compliance with State financial tracking requirements.

Preparation of the Feasibility Study (Study) will be by the USACE Planning Division. Work will be performed by the USACE and subcontractors. The Project Manager for the USACE during the Reconnaissance Study was Mr. Rick Dreher. Mr. Dreher will probably be the Study Manager for the Feasibility Study. Mr. Dreher and other Planning staff with the USACE are familiar with the technical, administrative and project management requirements of grants and keeping projects on time and under budget.

We do not aware of any potential conflicts of interest, either real or apparent, with any of the County, District, or USACE staff members.