



CITY OF SACRAMENTO

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DIVISION OF WATER AND SEWERS
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January 12, 1983

City Council
Sacramento, California

Honorable Members in Session:

SUBJECT: Sacramento Area Water Resources Study

APPROVED
BY THE CITY COUNCIL

JAN 18 1983

OFFICE OF THE
CITY CLERK

SUMMARY

At Council's request, attached is the proposed Request for Proposal for the Sacramento Area Water Resources Study. It is recommended that the Council approve the Request for Proposal and direct staff to proceed with the selection process for a consultant to perform the study.

BACKGROUND

The Division of Water & Sewers Capital Improvements Program included a project for the development of a Water Master Plan for the City. It has been approximately 10-years since the City last evaluated its position and direction in regard to its water facilities.

The Sacramento County Board of Supervisors passed a resolution on September 14, 1982 requesting that the City cooperate in the development of a Water Supply Plan. The Plan would be for the unincorporated area within the City's water rights boundary and adjacent to the City limits. Staff was directed by Council to proceed with our Water Plan and to include the concerns of the County. It also requested that staff come back to the Council with the Request for Proposal for the study.

Attached is the proposed Request for Proposal for the Sacramento Area Water Resources Study. The basic purpose of the study is to develop alternative policy recommendations and guidelines for the City to follow in its water resource utilization. A number of complex issues must be addressed and solutions developed. It will require a high degree of communication and input from the many facets involved with the area water resources. A strong emphasis is placed on alternatives that are technically feasible; institutionally acceptable, financially realistic, technically feasible and definitely implementable.

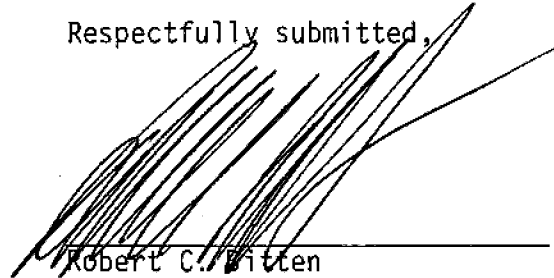
FINANCIAL

Funds are available in the 1982-83 Capital Improvements Program for this project in the amount of \$100,000. The County of Sacramento and the Arcade County Water District have submitted letters of intent to provide additional funding in the amount of \$50,000 and \$25,000, respectively.

RECOMMENDATIONS

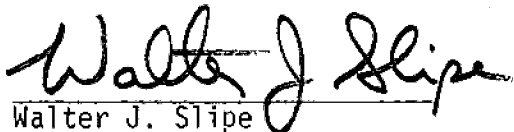
It is recommended that the Council approve the Request for Proposal for the Sacramento Area Water Resources Study and direct staff to proceed with the selection process to obtain a consultant to perform the study. Staff will return to Council with a consultant recommendation and request for consultant contract approval.

Respectfully submitted,



Robert C. Witten
Manager

Recommendation approved:



Walter J. Slipe
City Manager

vz
attachment



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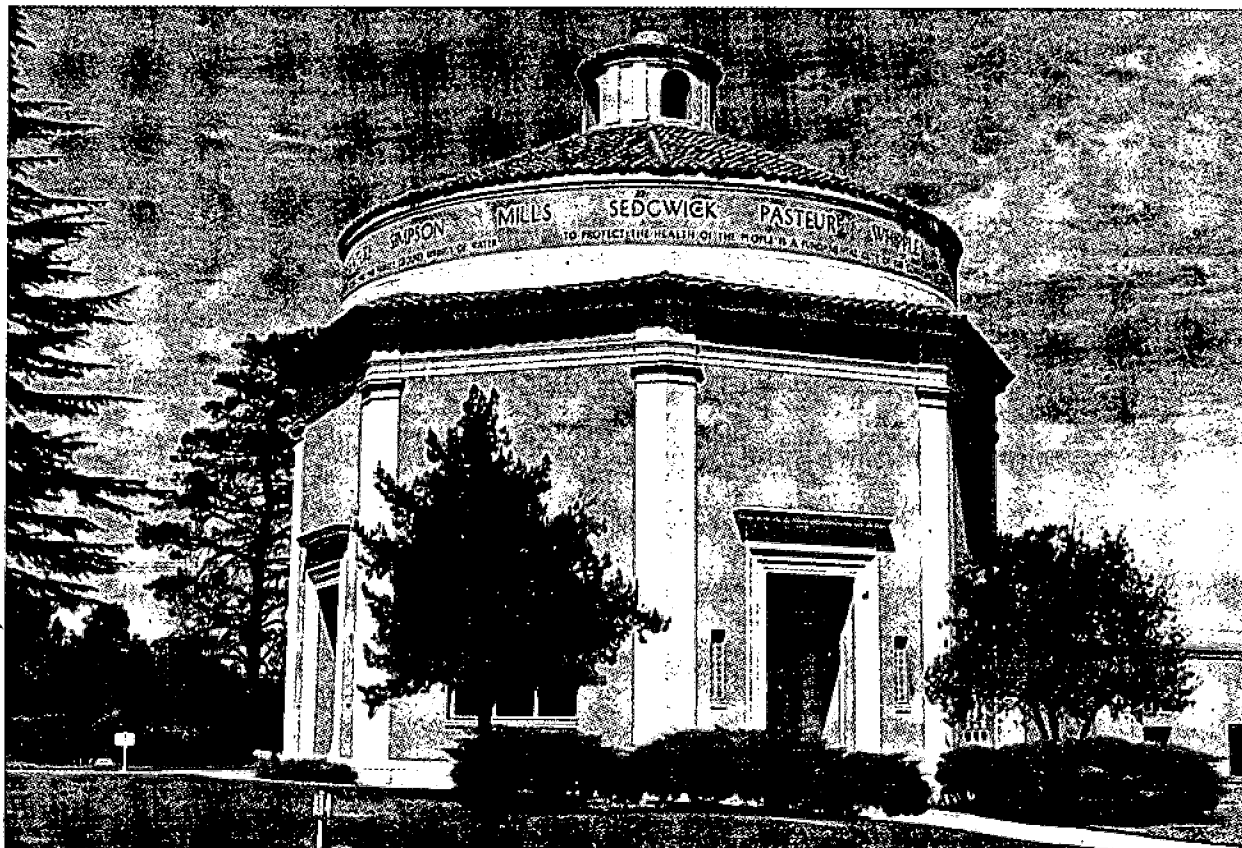
REQUEST FOR PROPOSAL
FOR

SACRAMENTO AREA WATER RESOURCES STUDY



CONDUCTED BY

DEPARTMENT OF ENGINEERING
DIVISION OF WATER AND SEWERS
927 - 10th STREET, ROOM 201
SACRAMENTO, CALIFORNIA 95814



Sacramento River Water Treatment Plant Headhouse

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I INTRODUCTION

The Sacramento Area Water Resources Study (referred to as SAWRS) is a cooperative effort of the City of Sacramento, County of Sacramento and the Arcade County Water District. It is being conducted under the direction and coordination of the City of Sacramento, Department of Engineering, Division of Water and Sewers.

This Request for Proposal (RFP) is being submitted to certain firms that have been previously screened and determined to be the most qualified to perform a study of this nature.

The primary goal of the SAWRS is to develop City water supply and water resources management policies and plans for the area within and contiguous to the City's water rights service area. The policies and plans must be compatible with the developmental, social, environmental and institutional philosophies of the region.

They must also provide for an intergrated approach to water resources management in the greater Sacramento area. A strong emphasis will be placed on organizational structure, financial capabilities, and feasibility of program implementation.

II BACKGROUND

Historically, the Sacramento area has enjoyed an enviable wealth of water resources. Two of the State's major rivers, the Sacramento and the American, converge in the northern portion of the area while the Cosumnes River traverses the south area. In addition, there has existed an abundance of high quality groundwater throughout most of the County. Water has been inexpensive to develop and has contributed significantly to both domestic and commercial development.

Since the late 1940's, the Sacramento area has experienced rapid urbanization generally, as well as an expansion of agricultural operations in the southern County area. In part, the growing water demands associated with this development were met from groundwater resources. As a result, large portions of the Sacramento area are now using groundwater faster than it can be replenished. In these areas of overdraft, the water table has fallen more than a foot each year since 1940.

The City of Sacramento with its water treatment plants on the Sacramento and American Rivers is the largest user of surface water in the area. It has existing water rights and contracts. The City is currently undergoing expansion of its facilities to provide water for its growing service area.

Water service in the Sacramento area is provided by many independent public and private water agencies. Each meets localized demands for water and operates according to its own system of water supply, distribution and user charges. The source of supply varies with each agency and includes groundwater, surface water, or sometimes a combination of both.

A number of comprehensive water resource management plans have been developed for the Sacramento area. Some of these plans are:

1. Sacramento County-Wide Water Plan
2. Arden-Arcade Conjunctive Use Plan for Portion of Northeast Area
3. Multi-District Conjunctive Use Water Supply Plan for Portion of Northeast Area

III STUDY OBJECTIVES

This study is concerned with water and its use in the Sacramento area, where it comes from, how it is being used and reused, where it goes. Our objectives are to describe water use in the area; to define water-related problems and opportunities; and to develop several workable, and comprehensive plans for managing the relationships between the area and its water resources.

A large portion of this work already has been accomplished in studies by other agencies. We will draw upon earlier work, and, with additional investigation, public involvement, and close coordination with local governments, establish a comprehensive framework for water supply and water resource management in the study area.

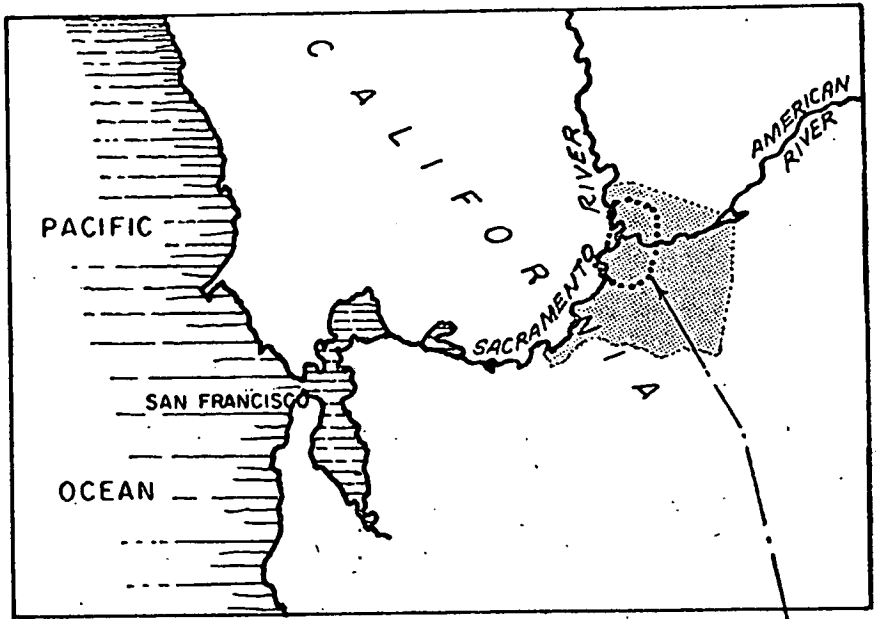
Our goal is to provide an understanding of present and potential water resources problems and opportunities and to develop workable solutions on a local and regional basis. This specifically includes the development of a water supply and water resource utilization plan that could serve the water rights service area and adjacent areas as determined feasible.

The tentative study area is shown in Figure #1. This indicates only a generalized area. It may be expanded or reduced as determined during development of the final plan of study.

The major emphasis in the SAWRS will be on finding water resources alternatives which are technically feasible, financially realistic, and ultimately acceptable implementable by local government.





SCALE
1" = 40 Miles ±



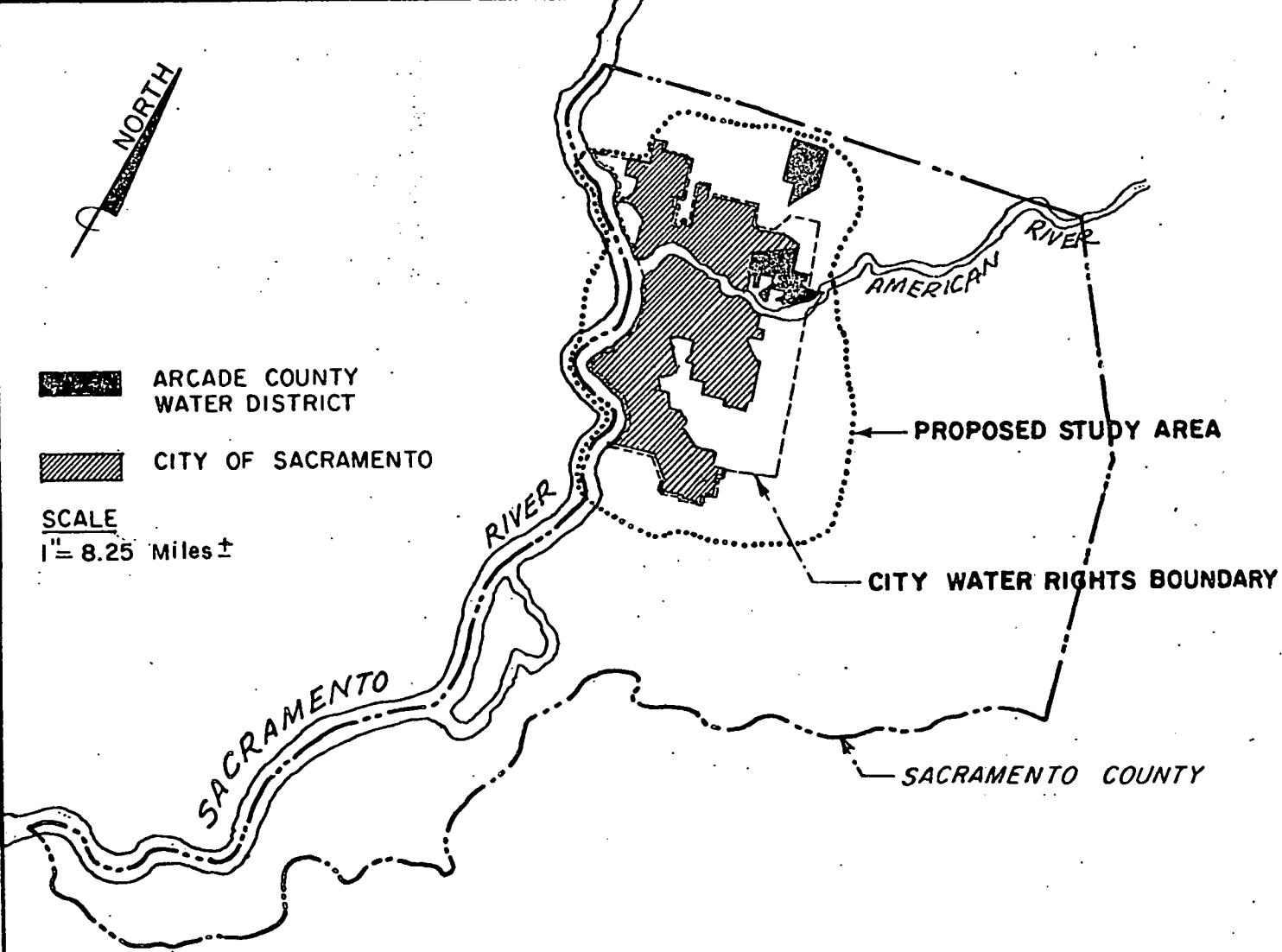
REGIONAL MAP

PROPOSED STUDY AREA BOUNDARY



-  ARCADE COUNTY WATER DISTRICT
-  CITY OF SACRAMENTO

SCALE
1" = 8.25 Miles ±



STUDY AREA MAP

FIGURE #1

IV STUDY MANAGEMENT

Overall responsibility for coordinating the study will rest with the Engineering Department, City of Sacramento Division of Water & Sewers.

The basic objectives of the study management are to maintain coordination among the tasks in different work items, and to insure that the focus of each study element results in a balanced set of plans aimed at resolving the study areas water supply and resource problems. The management objectives will be implemented on a day-to-day basis by the City's Project Coordinator.

- a. Consultant Management Team (CMT). A Consultant Management Team (CMT) has been established to assist in coordinating work elements in the study. The CMT will function as a working committee and will provide assistance to the consultant in identifying study objectives, formulating procedures, providing input and evaluating study outputs. The CMT has the following membership:

<u>Name</u>	<u>Title</u>	<u>Agency</u>
Mac Mailes	Asst. City Manager for Community Development	City of Sacramento
John Varozza	City Engineer	City of Sacramento
Mel Johnson	Asst. City Engineer	City of Sacramento
Robert C. Bitten	Manager, Water & Sewer	City of Sacramento
Joe Alessandri	Chief, Water Resources	Sacramento County
Walter Libal	Arcade Water Dist. Mgr.	Arcade Water Dist.
William Hetland	Project Coordinator	City of Sacramento

- b. Staff Support. Additional staff members of the City of Sacramento, Sacramento County Water Resources Division, and Arcade County Water District will provide support and input to the project as needed.
- c. Agency Liaison. Because of their current involvement in related planning efforts, close coordination will be maintained by the consultant with working-level personnel in affected agencies including but not limited to Bureau of Reclamation, State Department of Health Services, Local Agency Formation Commission,

State Water Resources Control Board, environmental groups, water agencies, etc..

- d. Study Monitoring. The Project Coordinator shall be kept apprised of study progress through periodic reports and briefings. If modifications in the consultants work schedule become necessary, revised schedules will be prepared and submitted to the Project Coordinator. All modifications and/or changes must have prior written approval of the Project Coordinator before any changes are made by the consultants.

The consultants shall report at least monthly to the CMT.

It shall be the responsibility of the consultant to notify the Project Coordinator of the overall progress on the SAWRS and to identify "critical path" activities which may hold up work by others.

- e. Existing Reports/Information. Previously completed water resource studies and plans in the SAWRS area will be available for review by the consultants by contacting the Project Coordinator.

Data collection of other agencies informational materials will be the responsibility of the consultants.

All referenced reports and/or studies used in the formulation of the SAWRS report will be indexed and submitted to the Project Coordinator for SAWRS reference files.

V PLAN OF STUDY

A tentative Plan of Study is to be prepared by the consultant and submitted with the proposal. It is to provide the basic design of the SAWRS that the consultant proposes to follow to comply with the objectives and goals of this RFP.

After a consultant is selected, he will be required to develop a final Plan of Study. The final Plan of Study will identify study area problems and specific planning objectives. Problems and objectives identified will be defined in sufficient scope for review and analysis by the Consultant Management Team (CMT). It will further outline items of work necessary to achieve those objectives and any other concerns the consultant feels are important to the successful completion of SAWRS.

The CMT will review the Plan of Study with the consultant and they will jointly reach a final agreement as to content of the Plan of Study. The final Plan of Study will provide the basis and be the guide for the development and scope of the SAWRS.

VI STATEMENT OF PLANNING OBJECTIVES, TASKS AND POLICY ISSUES

This section covers planning objectives, tasks and policy issues that will be covered in the SAWRS. These items are not all inclusive and are presented as a base from which the consultant will build upon in the development of the Plan of Study.

1. Planning Objectives. Overall planning objectives:

- a. Address water resource problems, issues, and concerns of regional and local interests;
- b. Flexible enough to accommodate changing economic, social developmental and environmental patterns;
- c. Integrated with other urban development and management programs;
- d. Fully coordinated with affected agencies;
- e. Developed through an orderly structured, and open planning process;
- f. Implementable with respect to financial, institutional, and public acceptance; and
- g. Implementable without jeopardizing existing City water rights.

2. Study Tasks. Achieving the above objectives will involve the following tasks:

- a. Inventory existing and planned water supply systems. Short and long range plans for expanding existing system also will be summarized. Copies of laws, regulations, or agreements pertaining to municipal, industrial, agricultural, or groundwater recharge water supplies will be reviewed and summarized. A synopsis of information concerning each water system and water rights will be prepared.
- b. Project water usages. Several methodologies for projecting municipal, industrial, agricultural, and groundwater recharge water usage will be investigated, and the most applicable method selected for use. The use

of computerized projection techniques will be examined. The City's computerized model of the water distribution system will be available for modeling.

Water-use projections will be made to the year 2030 for the SAWRS and existing water supply sub areas.

c. Identify water shortage areas. Existing data will be reviewed to determine if it applies. After all existing water systems have been surveyed and projections made for water usage in the SAWRS area, the areas which are expected to experience water shortage regarding both quantity and quality, will be identified. Even though a sufficient quantity of potable water, surface and/or groundwater, may be available for an area in the future, if the water will be of lower quality than presently being supplied, then the future source may not be publicly acceptable.

d. Inventory surface and groundwater sources. Investigations will be made to determine the location and extent of surface and groundwater supplies in the SAWRS area. Data from previous studies and from existing wells will be utilized where applicable and brought up to date when necessary.

Both quantity and quality characteristics of significant potential water resources will be examined.

Firm yields of potential sources will be determined from existing information based on quantity, quality and economics, and existing water rights will be noted.

e. Institutional Analysis. The primary objective of institutional analysis in this study is to insure that water resources management plans developed during the study are implementable. This involves screening out, during the planning process, plans that are not implementable, and designing a

detailed implementable plan or plans for each major alternative considered. This will be done in close coordination with all affected agencies and organizations.

Definitions. "Institutional analysis" is a process whereby institutions directly or indirectly related to water resources planning and management are identified and their potential role in the planning process or capability to implement alternative plans is assessed.

"Institutional arrangements" are those procedures which suggest how existing institutions should be utilized or modified, new institutions created, or existing institutions abandoned in order to facilitate implementation of the plan.

Institutional Analysis Process. The analyses will be oriented primarily to organizational and financial capabilities of local governmental agencies. It will be important to develop a general understanding of underlying values and "ways of doing things" in the study area, to insure public acceptability of alternative plans, including implementation arrangements.

The specific tasks to be performed in institutional analysis are:

- 1) Establish an institutional data base, including a summary of pertinent law, an inventory of existing agencies and agency types, and of voluntary associations involved in water resources and land use decisions and their respective policies, goals and responsibilities.
- 2) Review current financing options and present the benefits and disadvantages of each.
- 3) Analyze and evaluate institutional capabilities to implement water resources plans, including organizational formation,

scope of operation, financial strength and capacity, jurisdiction, and relationships with public interest groups and with other agencies.

- 4) Incorporate views of affected agencies and groups into the implementation plans early in the study effort.
- 5) Develop alternative implementation strategies and institutional arrangements for each major plan alternative.

f. Formulate alternative plans. Both structural and non-structural alternatives will be examined.

For each alternative, preliminary estimates of capital and annual operations/maintenance costs will be prepared. Significant environment and social impacts of each alternative will be listed, and financial and institutional implications of the plans will be examined.

The SAWRS study will examine the potential for a regional/metropolitan water distribution system(s), but will investigate alternatives utilizing small local systems as well.

System plans will include provisions for treatment, transmission, distribution, and storage.

3. Policy Issues. The area that is the most critical in the SAWRS plan is the area of policy issues. Some of the specific areas of concern are:
 - a. City participation in County water resource planning.
 - b. City water service to areas outside the City limits and water rights service area.
 - c. City service to Arden-Arcade water service area.
 - d. City participation in a City-County conjunctive water use plan.
 - e. City annexation policy based on City provided water.
 - f. Management and preservation of City water rights and the assessment of their impact on future water policies and strategies.

VII THE PROPOSAL

The consultant's proposal will provide the basis for selection of the firm to undertake the SAWRS and should include the following:

1. Relative experience and references.
2. Specialized knowledge of the subject.
3. Listing of actual personnel that will be involved in the project, their classifications and resumes, the amount of time each will devote to the project, and a description of the work each will be assigned.
4. Ability to accomplish the SAWRS within the time specified.
5. Present firm size, expertise, and workload.
6. Statement of consultant's fee schedule and his estimated not to exceed cost for completion of the project and a cost breakdown.
7. Outline of consultant's philosophy and approach towards performance of the SAWRS.
8. Tentative Plan of Study.
9. Information and data consultant feels is pertinent in making a final selection for the Study.

Seven copies of the Proposal shall be received by 5:00 p.m. on _____
1983 at the following address:

City of Sacramento
Department of Engineering
Water & Sewer Division
927 - 10th Street, Suite 201
Sacramento, CA 95814

Attn: Mr. William T. Hetland
Chief Engineer
SAWRS Proposal

VIII COST, SCHEDULE & REPORTING REQUIREMENTS

1. Study Costs. The total combined funding for the SAWRS is \$175,000. This allows for contingencies and administrative overhead in accomplishing the necessary work.

The funding for the combined study will be provided as follows:

<u>Source</u>	<u>Not to Exceed Amount</u>
City of Sacramento	\$100,000
Sacramento County	50,000
Arcade Water District	<u>25,000</u>
Total	<u>\$175,000</u>

2. Study Schedule. The consultant shall develop a detailed study schedule based on the final Plan of Study and present it to the CMT for their review and approval.

The total length of study under this effort shall not exceed ten calendar months commencing on the date that the selected consultant is given written notice to proceed.

3. Study Reporting. The consultant will be required to:
 - a. Present briefings and report to the County Board of Supervisors, City Council of Sacramento, and the Board of Directors for the Arcade County Water District.
 - b. Prepare informational, progress, summary, and preliminary reports as requested by the Project Coordinator.
 - c. Prepare 250 copies of the final report.