1. INTRODUCTION

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Lower Cache Creek in Yolo County is an area of multiple values and competing interests. Valuable resources provided by the creek include: surface water supply, groundwater recharge, construction-grade aggregate, riparian forest and riparian-dependent wildlife and fisheries. It has long been recognized that a comprehensive plan is needed to manage the many resources provided by Cache Creek so that the good of the public is best served and the viability of the creek protected. Previous attempts at development and implementation of such a plan have met with limited success, in part, because they lacked a solid base of technical information and data necessary to develop effective policies and accurately evaluate the expected effects of those policies.

Yolo County is currently in the process of developing a Cache Creek Resources Management Plan (CCRMP) for lower Cache Creek. This plan will rely on a strong factual base to support its conclusions and policies. To provide this factual base, the County contracted with EIP Associates in association with Northwest Hydraulic Consultants and David Keith Todd Consulting Engineers to prepare three technical studies covering the areas of streamway fluvial morphology, groundwater resources, and riparian habitat. These three studies are contained in this report entitled *Technical Studies and Recommendations for the Lower Cache Creek Resource Management Plan.* The objective of this report is to provide:

- a comprehensive evaluation of all existing relevant data on Cache Creek resources;
- a thorough review of historic conditions on and adjacent to the creek;
- a credible evaluation of changes in the nature of the creek and its resources over time and why those changes occurred; and
- a general understanding of the interrelationship between the streamway morphology, ox and riparian habitat characteristics of Cache Creek and how conditions are likely to change in the future under various approaches to resource management.

Based on the results of the three technical studies, policy recommendations were prepared that, in the opinion of the technical studies preparers, best serve the public good and protect and enhance the long-term viability of the Creek. These recommendations are provided in this report for consideration by the County during their preparation of the upcoming CCRMP. These recommendations, along with public input, the technical studies themselves, and any other relevant information available to the County will be used in the formulation of the goals and policies that will comprise the CCRMP.

Approval of the CCRMP will be contingent upon the certification of an Environmental Impact Report to be prepared on the CCRMP and alternatives to that plan.

Primary Study Area

The primary study area for the three technical studies is an approximately 16,000-acre area defined by the presence of minable aggregate resources in or adjacent to lower Cache Creek. This area extends approximately 1 to 1.5 miles on either side of Cache Creek for about 14.5 miles from the Capay Dam downstream to a levied section of the creek near the town of Yolo (see Figure 1-1). This area provides the focus for all three studies although the scope of discussions for the groundwater evaluation and, to an extent, the streamway study extend to areas beyond this in order to give a regional perspective to those evaluations.

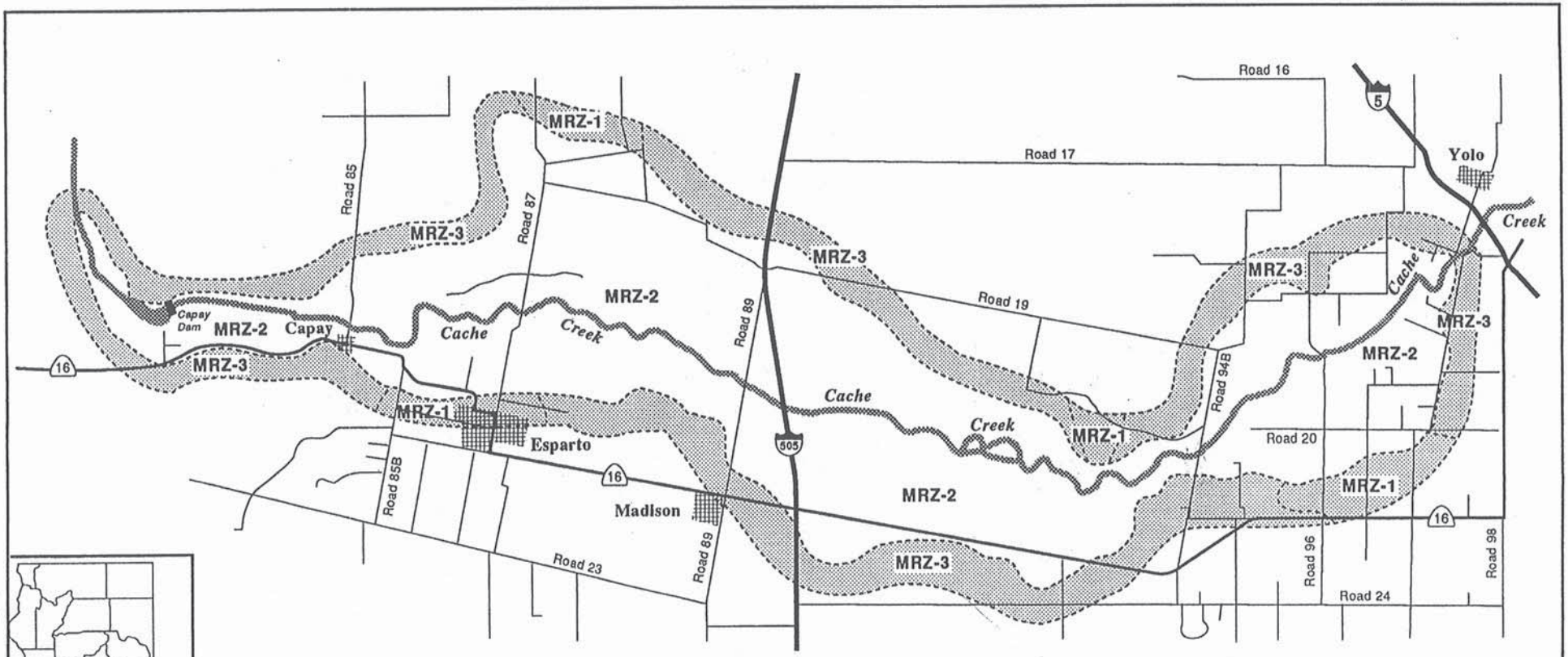
Project Background

Yolo County has been involved in studying and attempting to resolve surface mining issues along Cache Creek for over two decades, beginning with the formation of the Aggregate Resources Advisory Committee (ARAC) in 1975. The ARAC commissioned Woodward-Clyde Consultants to prepare a report, analyzing the potential relationships between adverse environmental conditions and the aggregate excavations operating along Cache Creek at that time. The study was released in 1977 and made several suggestions regarding the future management of the creek including: requiring use permits for all mines; establishing a maximum depth of excavation (the theoretical thalweg); encouraging the development of off-channel mining; implementing erosion control measures; and expanded monitoring.

In their final report, the ARAC also recommended that the County should develop a resource management plan (RMP) in order to maximize the benefits of the aggregate industry. The Board concurred with the ARAC and adopted a General Plan Policy (Conservation No. 35), which states:

> Yolo County shall adopt a Cache Creek Management Program for the carefully managed use and conservation of Cache Creek and its sand and gravel resource, its riverside environment, its relationship to ground and surface water characteristics, and its value as a fishery and recreation resource.

In response to the recommendations made by the 1977 study, the Board of Supervisors adopted in-channel mining and reclamation ordinances in 1979, requiring all existing extraction operations to apply for use permits and reclamation plans. This was accomplished in 1980, with the approval of seven permits and certification of an Environmental Impact Report which analyzed the impacts of mining along the stream. In order to mitigate the potentially adverse environmental impacts associated with mining, the EIR concluded that the County should prepare a long-term coordinated management approach to the mining industry, based on an overall plan for resources in the Cache Creek area.



LEGEND

Primary Study Area/Mineral Resources Zone-2 (MRZ-2): Areas containing known significant mineral deposits.

MRZ-1: Areas where adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence.

MRZ-3: Areas containing mineral deposits the significance of which cannot be evaluated from available data.

-N-

NO SCALE

SOURCE: County of Yolo, *Draft Cache Creek Resources Management Conceptual Plan*, February 2, 1994; *Mineral Land Classification Map, Portland Cement Concrete Grade, Aggregate Resources Only, Sacramento-Fairfield P-C Region*, Don L. Dupras and James Dennis Williams, 1988; EIP Associates, June 1994.

Figure 1-1

Cache Creek Primary Study Area

94150
Study-Area

eip

The Aggregate Technical Advisory Committee (AgTAC) was formed by the Board of Supervisors in 1979, to develop the Resource Management Plan for Cache Creek, as recommended by the ARAC. A draft RMP was submitted in 1984, containing seven alternative scenarios for the future of the creek. Subsequently, a draft Program Environmental Impact Report for the RMP was prepared in 1989 examining the alternatives discussed in the draft plan. However, the Draft EIR was subjected to significant controversy regarding the adequacy of the analysis and the document was abandoned by the County. As a result, none of the recommendations made by the AgTAC were adopted.

Failure of the 1989 Program EIR was largely attributed to the lack of a specific project description. Thus, in 1992, a series of public meetings ~~was~~ were held by the Community Development Director, in order to obtain general agreement on a detailed explanation of how mining would be carried out in the future. Although consensus was reached on many of the concerns, complete agreement on all of the issues involved was not attained. In response, the Board of Supervisors appointed two of its members as a Gravel Subcommittee, in order to resolve any outstanding differences. On March 22, 1994, the Subcommittee presented their recommendations, which were subsequently adopted by the Board of Supervisors (Minute Order No. 94-120). In taking this action, the Board directed staff to draft a conceptual resource management plan for Cache Creek, to be based in part on a streamway study, which would provide crucial information on such issues as flooding, erosion, and water management.

County staff brought the conceptual RMP back to the Board on June 14, 1994. The Board adopted the proposed conceptual Cache Creek Resources Management Plan, which added two additional technical reports, regarding groundwater resources and riparian habitat, to the streamway study (Minute Order No. 94-266). The three reports were to be coordinated into an interdisciplinary study, in order to provide a broad overview of resource requirements and opportunities. The preliminary recommendations for resource conservation policy and implementation included within the technical studies are expected to form the foundation for developing both the CCRMP and the off-channel mining plan and implementing ordinance.

Contents Of This Report

A complete listing of report contents is provided in the **Table of Contents** at the front of this report along with a listing of all tables and figures.

The **Chapter 1: Introduction** describes the general scope, content, and background of the this report.

Chapter 2: Executive Summary provides a summary of the key findings of each of the three technical studies and the policy recommendations developed from these studies.

Chapter 3: Streamway Study was prepared by Northwest Hydraulic Consultants. This chapter analyzes the fluvial geomorphic and hydraulic characteristics of Cache Creek. It provides a description of how the physical nature of the creek has changed over time in response to various natural and artificial elements, discusses the current state of the creek, and likely prospects for future changes under various management approaches.

Chapter 4: Groundwater Study was prepared by David Keith Todd Consulting Engineers. The groundwater study quantifies historical groundwater quantity and quality, documents the hydrogeologic context, describes surface water/groundwater interactions, and evaluates potential impacts of mining and reclamation on groundwater in and near lower Cache Creek.

Chapter 5: Riparian Habitat Study was prepared by EIP Associates. This chapter describes historic changes and trends in riparian vegetation, wildlife and fisheries in the lower Cache Creek area and discusses likely factors responsible for those changes. Current habitat conditions along the creek are discussed in terms of their interrelationship with stream hydraulics, fluvial morphology, land use practices, groundwater availability and surface water availability.

Chapter 6: Conclusions and Recommendations consolidates the results of all three studies and formulates recommendations to be considered by the County in its preparation of goals and policies for the upcoming Cache Creek Resource Management Plan.

Chapter 7: Report Preparation was prepared by EIP Associates and catalogues all participants responsible for creating this document.

Chapter 8: Bibliography consolidates all references used throughout the three technical studies in alphabetical order.

Chapter 9: A **Glossary** is provided at the end of this report to provide definitions for technical terms that are used throughout.