SUPPLEMENT TO THE
ENVIRONMENTAL IMPACT REPORT
FOR THE

CROSSROADS INDUSTRIAL PARK

RELATIVE TO

AMENDMENT OF DEVELOPMENT AGREEMENT & REVISED SEWAGE DISPOSAL SYSTEM (WATER RECYCLING PLANT NO. 1 REMEDIATION)

AT INTERSTATE 5 AND STATE ROUTE 120
LATHROP, CALIFORNIA

PREVIOUS STATE CLEARINGHOUSE NO.: 1988070516
SAN JOAQUIN COUNTY EIR NO. 88-11

JUNE 14, 2001

PREPARED FOR:
CITY OF LATHROP
PUBLIC WORKS DEPARTMENT
16775 HOWLAND ROAD, SUITE 1
LATHROP, CA 95330
ATTN: RAMON BATISTA, ASSISTANT CITY MANAGER
(209) 858-2860

PREPARED BY:
INSITE ENVIRONMENTAL
2155 WEST MARCH LANE, SUITE 1-C
STOCKTON, CA 95207

WITH MAJOR SUPPORT FROM:
EDAW
2022 J STREET
SACRAMENTO, CA 95814

SUPPLEMENT TO THE ENVIRONMENTAL IMPACT REPORT FOR THE CROSSROADS INDUSTRIAL PARK

RELATIVE TO

AMENDMENT OF DEVELOPMENT AGREEMENT & REVISED SEWAGE DISPOSAL SYSTEM (WATER RECYCLING PLANT NO. 1 REMEDIATION)

AT INTERSTATE 5 AND STATE ROUTE 120
LATHROP, CALIFORNIA

PREVIOUS STATE CLEARINGHOUSE NO.: 1988070516
SAN JOAQUIN COUNTY EIR NO. 88-11

JUNE 14, 2001

PREPARED FOR:
CITY OF LATHROP
PUBLIC WORKS DEPARTMENT
16775 HOWLAND ROAD, SUITE 1
LATHROP, CA 95330
ATTN: RAMON BATISTA, ASSISTANT CITY MANAGER
(209) 858-2860

PREPARED BY:
INSITE ENVIRONMENTAL
2155 WEST MARCH LANE, SUITE 1-C
STOCKTON, CA 95207

WITH MAJOR SUPPORT FROM:
EDAW
2022 J STREET
SACRAMENTO, CA 95814

TABLE OF CONTENTS
SUPPLEMENTAL EIR
CROSSROADS INDUSTRIAL PARK

APPENDICES

LIST OF FIGURES

LIST OF TABLES

1.0. INTRODUCTION

1.1 PROPOSED PROJECT AND SUPPLEMENTAL EIR FOCUS

The primary elements of the proposed project involve the amendment of the existing Development Agreement (DA) for the Crossroads Industrial Park and the construction and operation of an alternative wastewater disposal solution for the City's Water Recycling Plant No. 1 (WRP-1). Crossroads is an approximately 528 acre area which was subject to environmental review for industrial development in under County authority. The EIR for the project was certified and the project was approved by the City of Lathrop, in 1989.

The proposed DA amendment would extend the term of the existing agreement and permit continued development within the Crossroads area in accordance with the existing approvals. The DA amendment would also establish a number of necessary administrative and financial relationships between the City and applicant. Proposed improvements to WRP-1 would include construction of a pond system for winter storage and land application of secondary sewage effluent. The proposed sewage disposal system is required to replace the existing evaporation/percolation pond system that is not functioning adequately.

Development of the Crossroads Industrial Park and of sewage treatment facilities at WRP-1 have been the subject of several County and City environmental documents prepared pursuant to CEQA. These include the Draft and Final EIR for the Crossroads project as a whole; this EIR was prepared by Mills Associates in 1989 for a general plan amendment, rezoning and subdivision map processed the County of San Joaquin prior to the formation of the City of Lathrop. The 1989 EIR provided a comprehensive review of the potential environmental effects of development of the Crossroads area and is the foundation for this Supplemental EIR.

This Supplemental EIR document is also related to Mitigated Negative Declarations prepared by the City of Lathrop for development of a 600,000 gallons per day (0.6 MGD) secondary sewage treatment and disposal system at WRP-1 (1991), and for expansion of the capacity of WRP-1 from 0.6 MGD to 1.2 MGD (1996). This latter project, known as the Phase 1A expansion, is currently in the design stage and is undergoing additional environmental review. The City also prepared a wastewater facilities plan which included major improvement to WRP-1. This project was the subject of an EIR prepared in 1995-1996. The City is updating its wastewater master

plans and integrating these with water and reclaimed water master plans. The integrated plan is expected to be adopted in July 2001.

Many of the potential environmental impacts of the proposed project have been considered in the 1989 Crossroads EIR (the "previous" EIR) as well as other environmental documents prepared by the City. The purpose of this document is to augment the previous EIR so that, considered together, the documents meet applicable CEQA requirements for the proposed project. This Supplement to the previous EIR 1) provides a description of the current proposed project, 2) evaluates and updates the environmental information and impact analysis presented in the previous document as required, and 3) provides supplemental information and analysis, as needed to meet current CEQA requirements. This Draft Supplemental EIR will be subject to agency and public review for 45 days. The City of Lathrop will incorporate responses to any substantive comments on the Draft into a Final Supplemental EIR that will be considered by City of Lathrop decision-makers before taking action on the project.

1.2 CEQA REQUIREMENTS REGARDING SUPPLEMENTAL EIR, TIERING RELATIONSHIPS

CEQA and the CEQA Guidelines require an agency to prepare an EIR prior to taking a discretionary action that has the potential to cause significant, adverse effects on the environment. When an EIR has been prepared for a an on-going, that EIR may be used to fulfill CEQA requirements for a later project, provided that the information and analysis in the previous EIR adequately describes the project, its potential environmental effects and necessary mitigation measures. If this is not the case, additional documentation is required, ordinarily in the form of a Subsequent EIR, a Supplemental EIR, or Addendum, depending to the degree of improvement required.

A Subsequent EIR is ordinarily required when the proposed project, its circumstances, or the available environmental information have changed substantially. The conditions under which a Subsequent EIR is warranted are defined in Section 15162 of the CEQA Guidelines, as follows:

> (a) When an EIR has been certified or a negative declaration adopted for a project, no subsequent EIR shall be prepared for that project unless the lead agency determines, on the basis of substantial evidence in the light of the whole record, one or more of the following:
>
> > (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or Negative Declaration due to the involvement

of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;

(2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or

(3) New information of substantial importance which was not known and could not have been known with the exercise of reasonable diligence shows any of the following:

(A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration;

(B) Significant effects previously examined will be substantially more severe than shown in the previous EIR;

(C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or

(D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially lessen one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

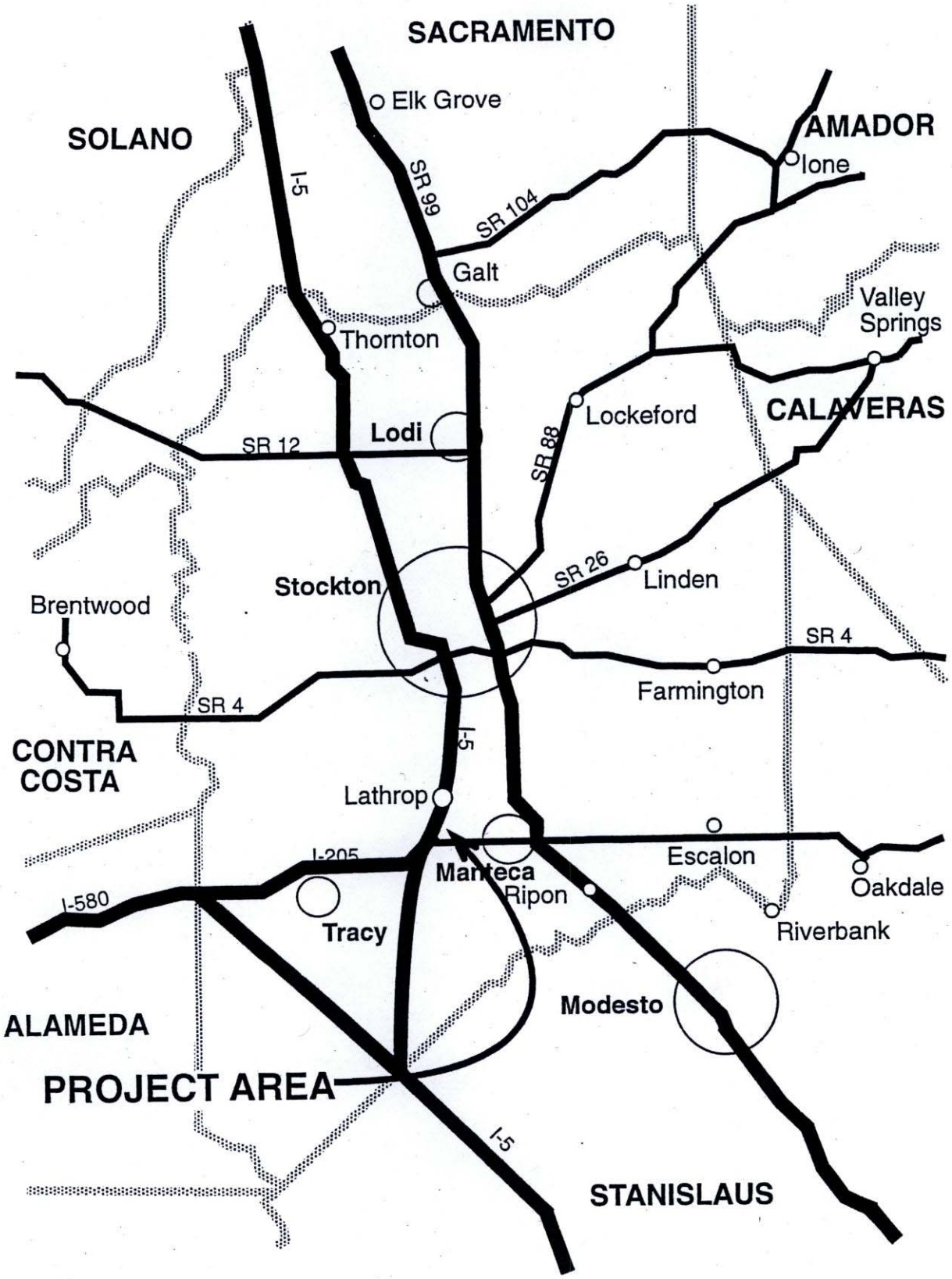
A Supplemental EIR may be prepared if the conditions listed above for a subsequent EIR are met, but "only minor additions or changes would be necessary to make the previous EIR adequately apply to the project in the changed situation" (CEQA Guidelines Section 15163).

The proposed project would not require the preparation of a "subsequent" EIR and would be consistent with the criteria for preparation of a supplemental EIR. The current proposed project would involve no substantial changes in the Crossroads project. Continuing industrial development within the area would conform to existing approved General Plan and zoning designations as documented in the various sections of this Supplemental EIR, the approved project is resulting in reduced levels of environmental impact in certain issue areas. There is no substantial change in circumstances with regard to the Crossroads project. As documented in the previous EIR, the Crossroads site was

designated and zoned for urban development, and development of the area is proceeding in accordance with these designations.

Urbanization of the area has been institutionalized with the incorporation of the City of Lathrop. However, processing of urban development within the Crossroads area has been and would continue to occur in accordance with development regulation in place at the time of project approval. There is some new information available with respect to the project, the project site and environmental resources. However, as documented in this Supplemental EIR, the proposed project would not result in any new or substantially more sever environmental impacts than documented in the previous EIR. The current proposed project would not involve any new significant and unavoidable impacts nor does the Supplemental EIR identify any new mitigation measures which could reduce previously-identified significant and unavoidable impacts. Rather, since the previous EIR, the project site has been fully committed to urban industrial development and the potential environmental effects of continued industrial development are inherent in the existing General Plan designations and zoning applicable to the site.

The proposed sewage effluent disposal remediation project would involve a minor change in the approved utility services for the Crossroads project. This element of the project involves a temporary change in the use of approved industrial land use: approximately 44 acres of the site would be temporarily devoted to sewage disposal use, and these lands would, upon the identification of other sewage disposal lands, would revert to potential industrial use. During the period these lands are in use, industrial development would be precluded together with any potential environmental impacts associated with that development.

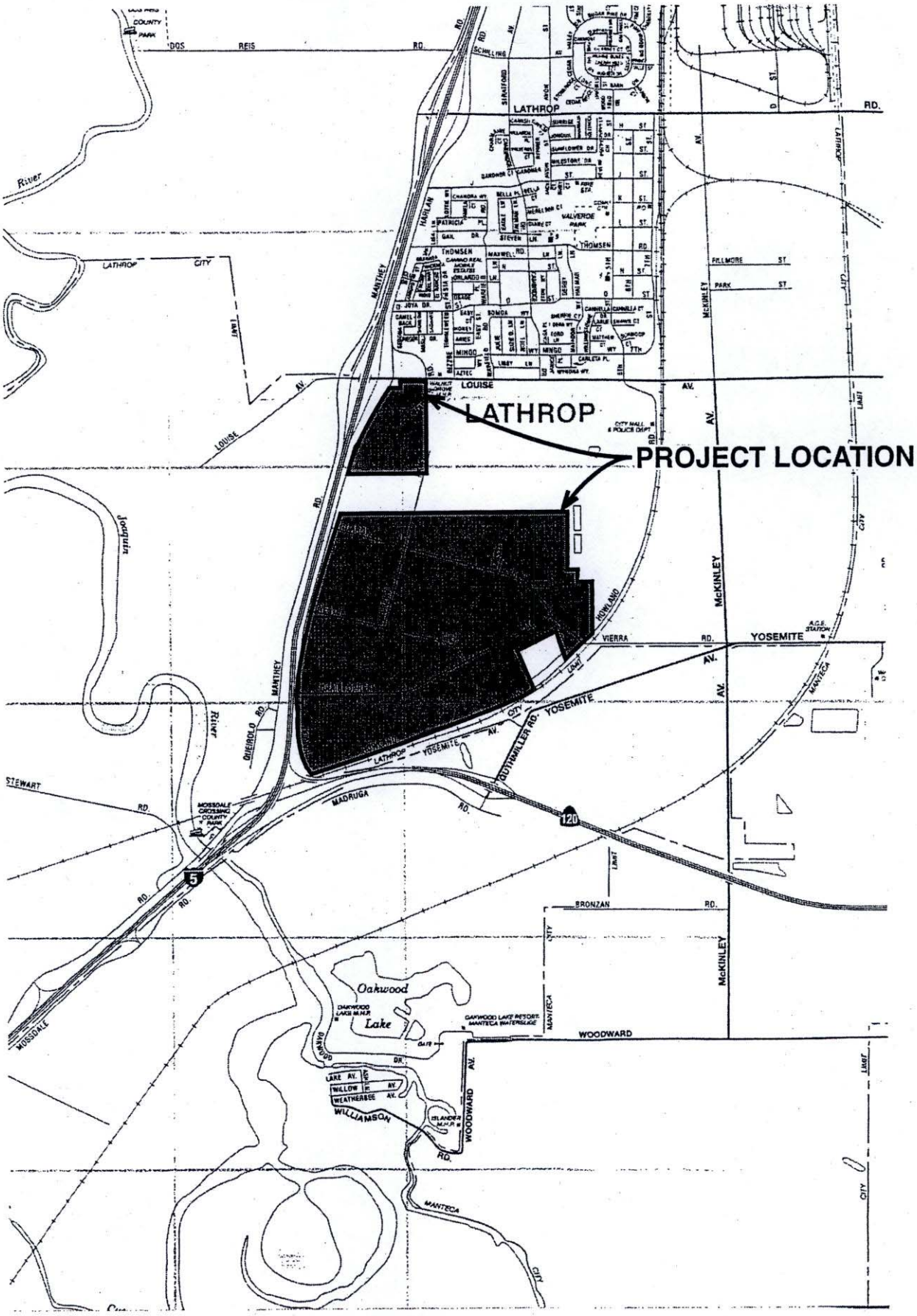


Scale: NOT TO SCALE

Source: INSITE ENVIRONMENTAL

INSITE ENVIRONMENTAL

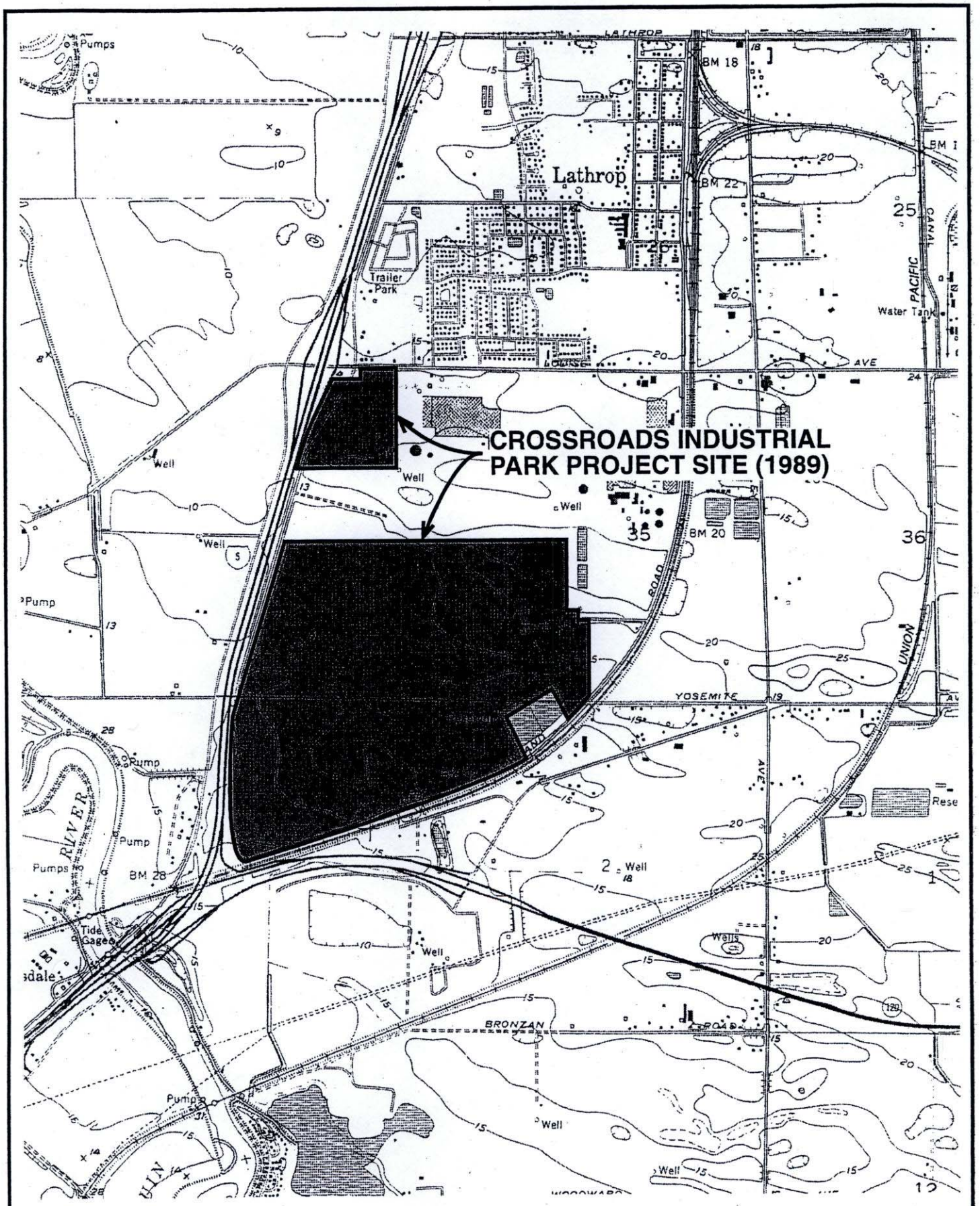
Figure 1-1
REGIONAL LOCATION



Source: CSAA

INSITE ENVIRONMENTAL

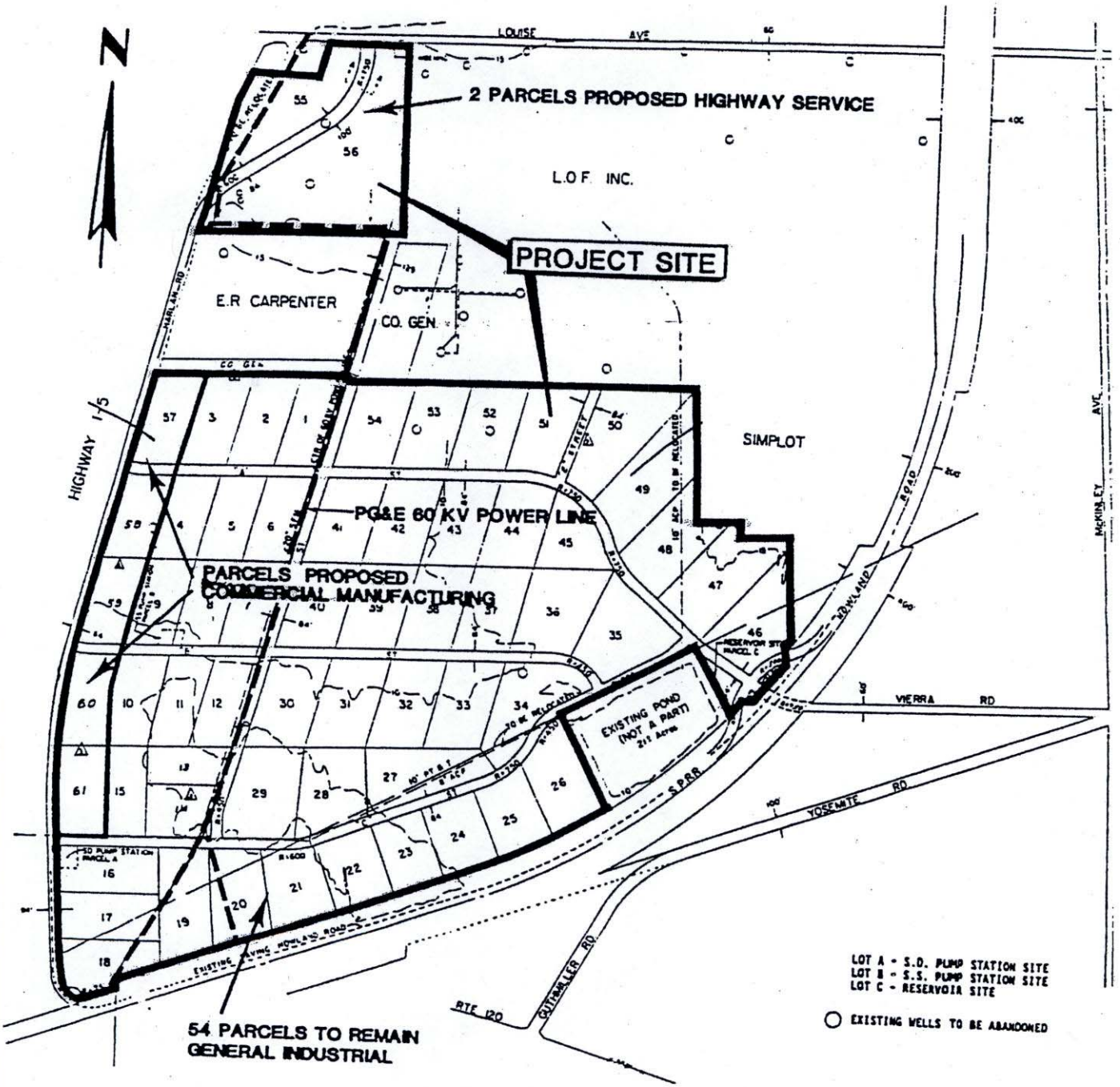
Figure 1-2
VICINITY MAP



Source: USGS 7.5' QUAD, LATHROP

INSITE ENVIRONMENTAL

Figure 1-3
USGS MAP



Source: MILLS ASSOCIATES

INSITE ENVIRONMENTAL

Figure 1-4
1989 PROPOSED GENERAL PLAN AMENDMENT AND SUBDIVISION

1.3 RELATED DOCUMENTS AND TIERING RELATIONSHIPS

This Supplemental EIR supplements and is tiered to the 1989 Environmental Impact Report for the Crossroads Industrial Park project (San Joaquin County EIR File No. 88-11). In this document, references to "the previous EIR" refer collectively to the Draft EIR and the Final EIR for the referenced project, including:

> Mills Associates. 1989a. Draft Environmental Impact Report, General Plan Amendment, Zone Reclassification and Major Subdivision for Crossroads Industrial Park. April 1989.
>
> Mills Associates. 1989b. Final Environmental Impact Report 88-11, SCH No. 1988070516, Kearny Ventures, Ltd., General Plan Amendment, Zone Reclassification and Major Subdivision for the Crossroads Industrial Park. September 1989.

The City of Lathrop has also considered the cumulative environmental effects of urban development in the City as a whole, considering land use and development projections to the year 2010, in its 1991 General Plan and EIR. This cumulative analysis encompasses the project site and surroundings:

> Grunwald & Associates. 1991. Comprehensive General Plan & Environmental Impact Report for the City of Lathrop. State Clearinghouse Number 1991022059. Adopted December 17, 1991.

The above-listed documents are hereby incorporated by reference. Copies of these documents are available for review at 16775 Howland Road, Lathrop CA. 95330.

In addition, the City of Lathrop has prepared and in most cases adopted a number of environmental documents related to sewage infrastructure improvements. These documents, also included in this document by reference, include:

> Siegfried Engineering, Inc. and Centurywest Engineering Corporation. City of Lathrop Wastewater Facilities Plan. October 1995.
>
> Grunwald and Associates. Draft Environmental Impact Report, Wastewater Facilities Plan for the City of Lathrop. SCH#1995052081. December 1995.
>
> Nolte Associates, Inc. Lathrop Water, Wastewater, and Recycled Water Master Plan. June 2000, revised February 2001.

EDAW. Draft Environmental Impact Report for Lathrop Water, Wastewater, and Recycled Water Master Plan. SCH# 1998082050. May 2001.

Lathrop, City of. Notice of Determination, Negative Declaration and Initial Study, Site Approval Application No. 91-17, Crossroads Ventures (construct 600,000 GPD sewage disposal plant). October 17, 1991 (Notice of Determination filing date).

Lathrop, City of. Notice of Determination, Negative Declaration and Initial Study, Site Approval 96-18 and Site Plan Review 96-19 (City of Lathrop and Libbey-Owens-Ford) – City Wastewater Treatment Plant Expansion to 1.2 MGD of Treatment Capacity. July 26, 1996 (Notice of Determination filing date).

Relevant sections of the foregoing EIRs and Initial Study/Negative Declaration documents are summarized in this document where appropriate. All of the listed documents are available for review at the Lathrop Department of Community Development, 16775 Howland Road, Lathrop, CA 95330.

1.4 PROJECT BACKGROUND AND RELATED PROJECTS

CROSSROADS INDUSTRIAL PARK PROJECT AND DEVELOPMENT AGREEMENT

The Crossroads Industrial Park project proposed in 1989 involved a general plan amendment, rezoning and major subdivision affecting approximately 528 acres of unincorporated land located north and east of the intersection of Interstate 5 and SR 120. Prior to the project, the site was designated General Industrial and zoned M-2. The Crossroads project proposed to change the County general plan designations and zoning on about 15% of the site as follows (Figure 1-4):

<u>44-acre Parcel at Interstate 5 and Louise Avenue</u>
General Industrial to Highway Service
General Manufacturing (M-2) to Highway Service (H-S)

<u>34-acre Parcel fronting on Harlan Road</u>
General Industrial to Limited Industrial
General Manufacturing (M-2) to Commercial Manufacturing (C-M)

The other 450-acres of the site remained designated General Industrial and zoned General Manufacturing (M-2). The project included a major subdivision creating 61 parcels (Figure 1-4) encompassing the entire site. The project was the subject of a Draft EIR,

then a Final EIR (Mills Associates, 1989a and b), which was certified by the City of Lathrop in 1989. The project was subsequently approved by the City.

The Crossroads project was included in the City Limits of Lathrop at the time of its incorporation on July 1, 1989. The City adopted the land use restrictions, which were applicable within the County, and these restrictions were applied to the Crossroads project in a subsequent Development Agreement (DA) between the Crossroads developers and the City of Lathrop. The DA, approved by the City in March 1992 on the basis of the on the certified previous EIR, was amended twice and will expire in March 2002. Further extension and amendment of the DA is one of the objectives of the proposed project.

Inclusion of the Crossroads project site in the City of Lathrop was contested at the time of incorporation by the City of Manteca; Manteca wanted to annex the site. However, a LAFCO staff report in 1989 determined that exclusion of the property from the incorporation boundary would "haphazardly divide the industrial area." The incorporation process was allowed to continue and the City of Lathrop was incorporated, with the Crossroads area, in July of 1989.

Development of Crossroads project has proceeded over the years with installation of street improvements and utilities over most of the site and the occupation and development of approximately 41% of the site by commercial and industrial uses.

City of Lathrop Water Recycling Plant No. 1 (WRP-1)

As discussed in the previous EIR, the original Crossroads project application proposed that sewage disposal services for the project be provided by the City of Manteca. When further analysis indicated that adequate sewage treatment capacity would not be available through the Manteca system, the City and Crossroads jointly proposed the development of a 600,000 GPD secondary sewage treatment and disposal system within the Crossroads site. This project, which included the treatment facility and a percolation/evaporation pond disposal system, was the subject of a Mitigated Negative Declaration prepared and adopted by the City in 1991.

WRP-1 (Figures 1-5, 1-6) was constructed in 1994 by the developers of Crossroads and serves commercial, warehousing, and light industrial activities within the development. This plant consists of influent pumping, mechanical screening, grit and grease removal, extended aeration, sedimentation and denitrification. Effluent is discharged to evaporation/percolation ponds for disposal. Solids collected from the mechanical screens, grit and grease removal processes are hauled to a local landfill for disposal. Waste activated sludge is de-watered using mechanical dewatering and sludge bagging equipment

and is hauled of-site for disposal. WRP-1 was constructed to process an average daily flow of 0.6 MGD, the projected flow from the commercial industrial park at build-out. Allowances for doubling the plant capacity to 1.2 MGD in the event the City should wish to serve additional lands outside the Crossroads site were included in the initial facility.

The existing treatment facility is currently processing less than 100,000 gallons per day. Development within Crossroads is, however, ongoing, and further development is anticipated. New users within Crossroads are expected to involve near-term demands for substantial portions, if not all, of the existing capacity of the treatment facility. However, the existing evaporation/percolation pond disposal facility is not performing as designed, and the system will not adequately dispose of sewage effluent generated by the treatment plant at levels substantially above the existing treatment rate. A 1998 geotechnical investigation of the ponds found that the lower infiltration rates were primarily due to a lower transmissivity of the underlying aquifer than originally reported. The investigation concluded that the ponds can accommodate less than a third of their original design capacity.

The City of Lathrop is in the design process to expand and upgrade WRP-1 to 1.2 MGD (Phase 1A), and eventually from 1.2 MGD to 3.0 MGD (Phase 1B) with tertiary treatment. Tertiary-treated sewage effluent will ultimately be directed to a City-wide reclaimed water system, but the City and private development interests are in the process of identifying interim sites for disposal of tertiary treated effluent. This project, known as the Phase 1A/1B expansion will be subject to environmental review in an EIR.

Until these improvements are in place, further development of the Crossroads project will be dependant upon the availability of sewage treatment and disposal capacity associated with the existing WRP-1. As noted above, existing disposal capacity is limited to 100,000 gallons per day. The proposed project described in this Supplemental EIR includes the construction of an interim system for disposal of secondary treated sewage effluent from WRP-1. A portion of the lands designated for industrial development within Crossroads will be used for this purpose. This and other aspects of the project are discussed in more detail in Chapter 3.0 Project Description.

The proposed remediation project, however, provides only a part of the 600,000 gallons per day of sewage treatment capacity which may be required to permit full buildout of the Crossroads project. In the long run, the necessary sewage treatment and disposal capacity would be provided by the City's proposed Phase 1A/1B project together with City and in efforts to identify lands for disposal of sewage effluent. In advance of the completion of these projects, which are undergoing separate environmental review, Crossroads and the City will seek additional lands for sewage effluent disposal outside the Crossroads area. These disposal areas would constitute separate projects and would be subject to environmental review under CEQA. The proposed project considered in

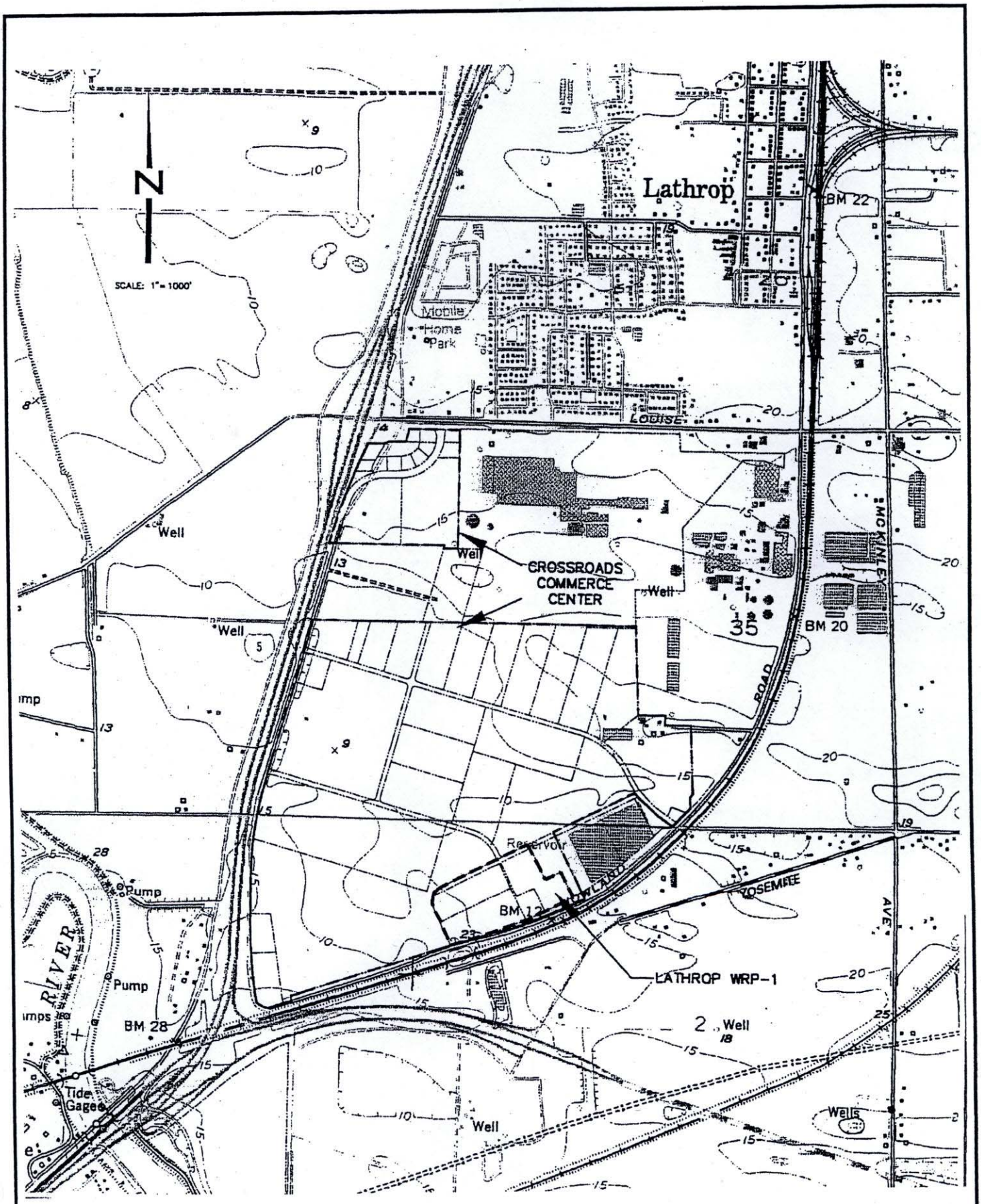
this Supplemental EIR, however, includes the addition of tertiary treatment equipment to the City's existing WRP-1. Addition of this equipment would provide for improved sewage effluent quality and would facilitate the identification and permitting of lands for effluent disposal.

City of Lathrop Wastewater Facilities Plans

The City of Lathrop drafted a Wastewater Facilities Plan in October 1995 (Siegfried Engineering, 1995) which was adopted in May 1996. This document evaluated alternatives for sewage collection, treatment and disposal, including major expansion of WRP-1, referred to in that document as "Site 3B." The 1996 Plan established the City's commitment to tertiary treatment of wastewaters and included plans for land disposal of treated effluent while also holding out the possibility of winter river discharge. The Plan included a recycled water system for transportation of treated effluent, identified certain sites for interim land disposal of up to 2.0 MGD of treated effluent. The Plan laid the groundwork for use of recycled water in public areas. An EIR was prepared and certified for this project (SCH#1995052081).

The City of Lathrop has prepared and is currently reviewing an integrated water, wastewater and recycled water Master Plan (Nolte, 2001). The Master Plan defines existing facilities, identifies proposed improvements and additional infrastructure needed to serve current and future land uses within the City of Lathrop and provides an orderly basis for needed expansion of infrastructure. The Master Plan focuses on water recycling and reuse as a means of limiting surface water discharges and accounts for the need to apply treated wastewater to agricultural land as the City-wide system is phased in. An EIR has been prepared for this project which is currently undergoing public review (EDAW, 2001). The anticipated date of adoption of the Plan and certification of the EIR is July 2001.

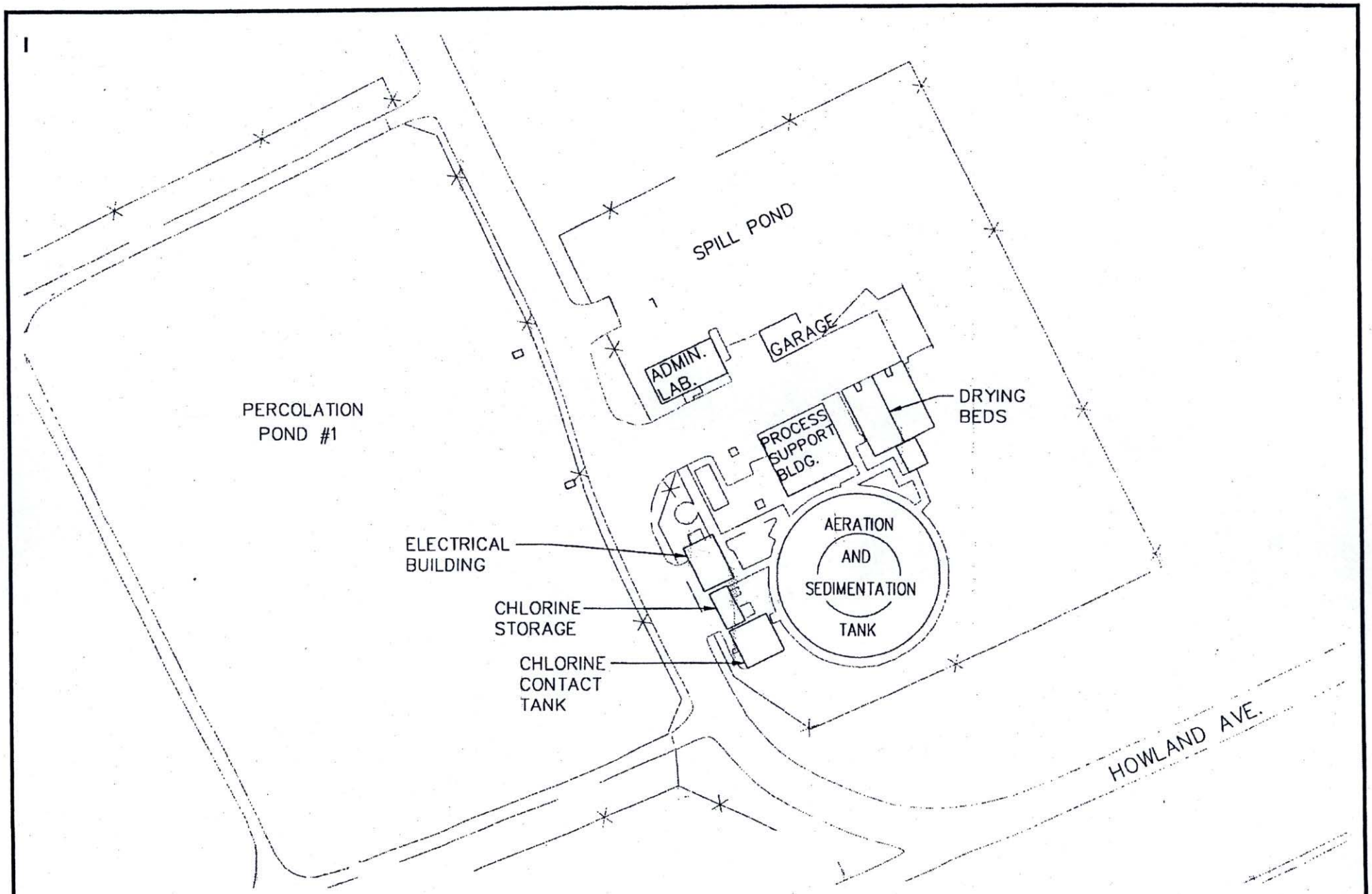
With respect to wastewater treatment and disposal, the 2001 Master Plan is an update of the 1995 Plan. The 2001 Plan evaluates four disposal options including: 1) zero surface water discharge or one hundred percent land application/reclamation, 2) zero summer surface water discharge, 3) year-round surface water discharge, and 4) conveyance to the Manteca WQCF. Rapid percolation to groundwater was not examined due to the problems encountered in the existing evaporation/percolation ponds at WRP-1 plus the additional treatment requirements that would likely be imposed by the Regional Board because groundwater is a drinking water source.



Source: INSITE ENVIRONMENTAL

INSITE ENVIRONMENTAL

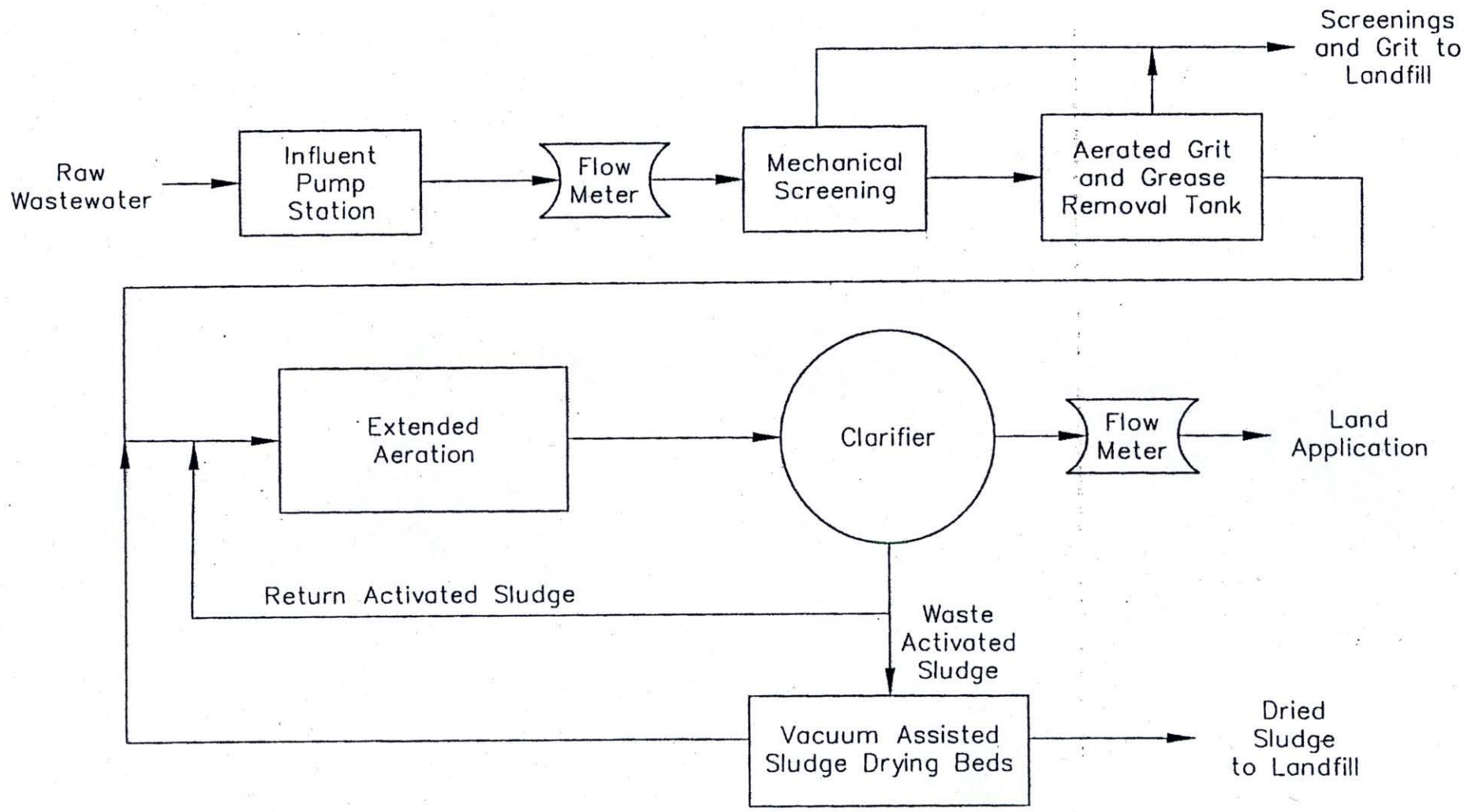
Figure 1-5
LOCATION OF LATHROP WRP NO. 1 AND CROSSROADS COMMERCE CENTER



Source: NOLTE ENGINEERING

INSITE ENVIRONMENTAL

Figure 1-6
EXISTING WRP-1



Source: NOLTE ENGINEERING

INSITE ENVIRONMENTAL

Figure 1-7
WRP-1 PROCESS FLOW DIAGRAM

The 2001 Master Plan proposes three treatment plants, one of which is WRP-1. The treatment process for the plants would consist of mechanical screening, influent pumping, grit removal, extended aeration, clarification, flow equalization, chemical addition, coagulation, flocculation, filtration and ultraviolet disinfection. The extended aeration system will be capable of nitrification-denitrification. Water to be recycled will meet all requirements of the California Department of Health Services for unrestricted reuse. The proposed method of solids handling at the wastewater plants would consist of landfilling grit and screened material. Waste-activated sludge will be thickened in a dissolved air flotation unit, aerobically digested and mechanically de-watered prior to land application or other method of disposal (Nolte 2001).

The effluent disposal strategy outlined by the Master Plan involves the application of recycled water on more than 1,000 acres of irrigated lands within the City including public parks and other lands as well as highway, street, railroad and other rights-of-way. Once recycling capacity is reached, wastewaters may be directed to the Manteca treatment facility or to a San Joaquin River discharge.

2.0 SUMMARY

2.1 SUMMARY PROJECT DESCRIPTION

The proposed project is located within the southern portion of the City of Lathrop and involves various proposed activities related to the existing, approved Crossroads Commerce Center, or, as it is also know, Crossroads Industrial Park, project. The City is located within San Joaquin County (Chapter 1.0, Figures 1-1 through 1-3).

The proposed project is located in the City of Lathrop in San Joaquin County, CA. Crossroads encompasses 528 acres located on two separate parcels that include numerous Assessor's Parcel Numbers. The sites are located within Township 2 South, Range 6 East, Section 3, Mount Diablo Base and Meridian. The project site is shown on the Lathrop 7.5-minute US Geological Survey topographic quadrangle.

The project involves three principal elements: 1) improvements that would add tertiary treatment capability to the existing City of Lathrop sewage treatment and disposal system (WRP-1) located within the Crossroads project; 2) a proposal for extension and amendment of an existing Development Agreement (DA) between the City of Lathrop and the project developer; and 3) development of a remedial interim land disposal system for the treatment facility. This remedial portion of the project would involve development of approximately 13 acres of effluent storage ponds and preparation of approximately 44 acres of land for agronomic application of existing secondary and future tertiary treated wastewater.

The objective of the proposed project, from the applicant's perspective, is continued and timely buildout of the Crossroads project. The proposed DA amendment and sewage treatment and disposal improvements are required to meet these objectives. The objectives of the City of Lathrop are to permit continued buildout while ensuring that the project conforms to adopted plans, zoning and development standards. Additionally, the City needs to remedy problems with the existing sewage effluent disposal system. Both parties need to improve and clarify financial arrangements related to Crossroads infrastructure.

Permits and approvals required in accordance with the proposed project would include Planning Commission and City Council action on the Supplemental EIR, the proposed DA amendment and rezoning and sewage treatment improvements. Construction of the proposed remediation project would require City Site Approval. Further permit requirements will depend on the nature of future industrial uses proposed for

development within the project area. Permits and approvals for the remediation project will also be required by the Regional Water Quality Control Board (RWQCB).

2.2 SUMMARY OF IMPACTS AND MITIGATION MEASURES

This document supplements the EIR prepared for the Crossroads Industrial Park project in 1990. That project resulted in the incorporation of the project area and approval of the then-proposed general plan amendments, zoning and tentative subdivision map for the site.

The potentially significant impacts of the current project and mitigation measures proposed to minimize these effects, together with impacts and mitigation measures associated with the current proposed project, are listed in Table 2-1 at the end of this chapter, together with the level to which mitigation measures would reduce impacts. All of the impacts and mitigation measures from the previous EIR are shown in the summary from that EIR, located in Appendix D of this document.

2.3 SUMMARY OF ALTERNATIVES

The previous EIR identified and discussed a range of reasonable alternatives to the proposed project, including the "no project" (No Development) alternative. The alternatives addressed included:

1. No Development
2. Project in Conformance with General Plan (All General Industrial Uses)
3. Modified Project (All Limited Industrial Uses)
4. Alternative Site

The advantages and constraints of each of the alternatives were discussed. The proposed project was approved by the City, and the alternatives were each found by the City to be either infeasible or less desirable than Crossroads in conjunction with approval of that project. As defined in the previous EIR, these alternatives were all rendered moot with the City's approval of the Crossroads project and are not addressed further in this document.

A range of reasonable alternatives to the current proposed project was identified. Alternatives to the current proposed project would include 1) No Project, 2) Alternative Uses and 3) Alternative Locations.

The *No Project Alternative* is defined as City denial of the proposed project and the continuation of existing conditions and trends in the project area. This alternative would temporarily avoid changes to physical resources, increases in employment, demands for public services and utilities and increased traffic, air pollution, and noise impacts. Continued industrial development of the Crossroads project could, however, continue under existing city-wide General Plan designations and zoning; this would involve generally comparable levels of development and potential for environmental impact.

Disapproval of the remediation project and/or the tertiary treatment project would limit available sewage treatment/disposal capacity at WRP-1 to approximately 100,000 gallons and would prohibit any substantial additional development within the Crossroads area until the City's completion of its Phase 1A/1B project, or an alternative disposal system. Disapproval of the tertiary treatment project would severely limit the options for any interim proposal solution.

This alternative does not fulfill the objectives of the project and would only in delay of significant environmental effects that have already been mitigated or accepted in conjunction with prior project approvals.

The *Alternative Uses Alternative* would involve approval of alternative land uses for all or portions of the project site. This is not considered a feasible alternative. The project area is dedicated to industrial use as a result of past approvals and development activity. The proposed remediation project is an interim open-space use that is intended to be replaced at a latter date by industrial development.

This alternative does not fulfill the objectives of the project and could result in increased potential for significant environmental effects compared to the proposed project. These potential impacts would not likely be avoidable with mitigation measures.

Alternative locations for the Crossroads project as a whole were considered in the previous EIR, and due to the prior industrial designations and zoning of the project site, this discussion was limited only to alternative locations for the then-proposed commercial uses. There is no alternative location for the proposed DA Amendment. The proposed remediation project involves an interim use of lands, and relocation to another site would result in equivalent or greater potential environmental impact. There is no feasible alternative site for the proposed tertiary treatment project. There are no feasible location alternatives to the proposed project.

2.4 SIGNIFICANT UNAVOIDABLE IMPACTS AND OUTSTANDING PUBLIC POLICY ISSUES

This Supplemental EIR identifies the significant environmental effects of the project and mitigation measures proposed to minimize these effects. Proposed mitigation would be effective in substantially reducing potential environmental effects to a less than significant level. Consequently the project would not involve any significant unavoidable impacts which have not been addressed and accepted by the City in previous environmental documents.

The project does not involve any known controversy or any unresolved public policy issues.

TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation
4.1 AESTHETICS			
Impacts on Aesthetic Resources.	LS	None required.	
4.2 AGRICULTURE RESOURCES			
Conversion of Agricultural Land to Other Uses.	LS	None required.	
Project Impacts on Nearby Agricultural Uses.	LS	None required.	
4.3 AIR QUALITY			
Construction Impacts.	PS	1. During construction, the owners, developers, and/or successors-in-interest will comply with San Joaquin Valley Air Pollution Control District Regulation VIII (Fugitive Dust Rules). 2. The owners, developers, and/or successors-in-interest shall implement the following dust control practices, drawn from Tables 6-2 and 6-3 of GAMAQI, during construction: • All disturbed areas, including storage piles, which are not being actively utilized for construction purposes, shall be effectively stabilized of dust emissions using water, chemical stabilizer/suppressant, or vegetative ground cover. • All on-site unpaved roads and off-site unpaved access roads shall be effectively stabilized of dust emissions using water or chemical stabilizer/suppressant. • All land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities shall be effectively controlled of fugitive dust emissions utilizing application of water or by presoaking.	LS

S=Significant, CS=Cumulatively Significant, PS=Potentially Significant, LS=Less than Significant, SOC Adopted=Statement of Overriding Considerations previously adopted.

TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation
		• When materials are transported off-site, all material shall be covered, effectively wetted to limit visible dust emissions, or at least six inches of freeboard space from the top of the container shall be maintained. • All operations shall limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at least once every 24 hours when operations are occurring. (The use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions.) (Use of blower devices is expressly forbidden.) • Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, said piles shall be effectively stabilized of fugitive dust emissions utilizing sufficient water or chemical stabilizer/suppressant. • Limit traffic speeds on unpaved roads to 15 mph; and • Install sandbags or other erosion control measures to prevent silt runoff to public roadways from sites with a slope greater than one percent.	
Impacts of Continued Industrial Development on Air Quality.	PS	1. The potential air quality mitigation measures described in Tables 6-5 and 6-6 of GAMAQI shall be incorporated into in design and development of the Crossroads project where appropriate. These measures may include transit improvements, park and ride lots, pedestrian and bicycle-enhancing infrastructure, ride-sharing and vanpool programs and incentives and telecommuting facilities and/or programs.	PS
Remediation Project Operation Impacts.	LS	None required.	
4.4 BIOLOGICAL RESOURCES			
Loss of Habitat for Common Wildlife Species.	LS	None required.	

S=Significant, CS=Cumulatively Significant, PS=Potentially Significant, LS=Less than Significant, SOC Adopted=Statement of Overriding Considerations previously adopted.

TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation Measures		Mitigation Measures	Significance After Mitigation
Swainson's Hawk Foraging.	PS	1.	The project applicant shall mitigate for the removal of Swainson's hawk foraging habitat in conjunction with new development within the Crossroads area, including development of the proposed storage ponds, by implementing any one, or a combination of, the following mitigation measures: a. The property owners and/or the project applicant will pay appropriate fees to the SJMSMP implementing body, to compensate for the conversion of lands to development. The current fee is $1,500 per an acre for the SJMSMP compensation category applicable to the project. Specific terms of SJMSMP participation shall be determined and executed prior to construction being initiated. b. The property owners and/or project applicant shall enter into a habitat mitigation/management agreement with CDFG to ensure a no-net-loss of habitat value. Compensation for removal of foraging habitat may occur through contributions to a mitigation bank, habitat enhancement, placement of off-site lands into a conservation easement, or other mechanisms negotiated with CDFG. The agreement shall be fully executed prior to construction being initiated.	LS

S=Significant, CS=Cumulatively Significant, PS=Potentially Significant, LS=Less than Significant, SOC Adopted=Statement of Overriding Considerations previously adopted.

TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation
Potential Impacts on Raptor Nesting.	PS	1. If site grading or construction activities are scheduled to occur during the breeding season for protected raptors (March through August), then prior to issuance of any grading and/or building permits, the applicants or the SJMSCP Joint Powers Authority (JPA), as applicable, shall retain a qualified raptor biologist to conduct pre-construction surveys for nesting raptors on the project site and on adjacent lands within 500 feet of the project site boundaries. Such surveys shall be conducted within 30-days prior to ground disturbance and shall be prepared in accordance with the protocol authorized in consultation with the CDFG and/or as specified in the SJMSCP, as applicable.	
		2. If protected raptors are found nesting within the areas surveyed, the raptor biologist will, in compliance with the SJMSCP and/or in consultation with the CDFG determine the appropriate setbacks on the project site within which construction will be prohibited until after the conclusion of the breeding season. If applicable, the ODS shall implement other "Incidental Take Avoidance Measures" as specified in the SJMSCP and/or as determined in consultation with the CDFG.	
Potential Impacts on Burrowing Owl Nesting and Foraging.	PS	1. Prior to initiation of site grading or other ground disturbing activities the owners/applicant shall coordinate with SJCOG regarding potential impacts on burrowing owl. The owners/applicant shall pay required fees and implement take avoidance measures as required by COG.	LS
4.5 CULTURAL RESOURCES			
Impacts on Undiscovered Cultural Resources	PS	1. Future development within the Crossroads project and the proposed remediation project shall be subject to cultural resource survey by a qualified archaeologist prior to construction.	

S=Significant, CS=Cumulatively Significant, PS=Potentially Significant, LS=Less than Significant, SOC Adopted=Statement of Overriding Considerations previously adopted.

TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation
		2. Any significant cultural resources are identified during the survey, they shall be avoided or mitigated in accordance with the provisions of the CEQA Guidelines.	
Inadvertent Disturbance of Subsurface Resources.	PS	1. If buried cultural resource, such as chipped or ground stone, historic debris, building foundations, or human bone, are inadvertently discovered during ground-disturbing activities, work will stop in that area and within 100 feet of the find until a qualified archaeologist can assess the significance of the find. If necessary, the archaeologist will develop appropriate treatment measures in consultation with the Department of Public Works and Community Development and other agencies as appropriate.	LS
		2. All personnel associated with excavations and earth moving activities will be made aware of the types of materials that could indicate the presence of a cultural resources site and the appropriate actions if these materials are found. The owner/project applicant will make arrangements for a qualified archaeologist to be available to evaluate potential finds prior to initiation of ground disturbing activities.	
4.6 GEOLOGY AND SOILS			
Geology and Related Hazards.	LS	None required.	
Potential Impacts Related to Soil	LS	None required.	
4.7 HAZARDOUS MATERIALS			
Potential Hazardous Materials Impacts of the Project.	LS	None required.	
4.8 HYDROLOGY AND WATER QUALITY			
Flooding Impacts.	LS	None required.	

S=Significant, CS=Cumulatively Significant, PS=Potentially Significant, LS=Less than Significant, SOC Adopted=Statement of Overriding Considerations previously adopted.

TABLE 2-1

SUMMARY OF IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation
Impacts on Groundwater Quality.	PS	1. The City of Lathrop will actively enforce adopted industrial pretreatment standards for dischargers served by WRP-1 in accordance with the requirements of Chapter 51 of the Lathrop Code of Ordinances.. 2. A groundwater investigation will be conducted to determine the number and location of monitoring wells required to monitor the impacts of wastewater application to the underlying aquifer. Characterization of existing groundwater conditions in Land Application Site 3, adjacent to Simplot, will be specifically addressed in the investigation to reduce future liability for existing groundwater contamination. 3. The City of Lathrop will install groundwater monitoring wells as detailed by the groundwater investigation identified in mitigation measure 2. Before the required wells are installed, a monitoring well installation work plan will be submitted to the Regional Board for approval. Once wells are installed the following monitoring and reporting schedule be implemented: Daily: Wastewater flow Weekly: Pond dissolved oxygen concentrations Monthly: Chemical monitoring of applied wastewater, including BOD, EC, TDS, FDS, VDS, Cl, NO3, TKN, and pH Quarterly: Chemical monitoring of monitoring wells, including BOD, EC, TDS, FDS, VDS, Cl, NO3, TKN, and pH Yearly: Standard minerals analyses of supply water and applied wastewater	LS

S=Significant, CS=Cumulatively Significant, PS=Potentially Significant, LS=Less than Significant, SOC Adopted=Statement of Overriding Considerations previously adopted.

TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation
		4. Reports will be submitted to the Regional Board monthly, with quarterly (monitoring well) and annual (standard minerals) data being submitted the month following collection and analysis of samples. At the end of each year, an annual report will be prepared summarizing the results of the land application of wastewater, and calculating the hydraulic, organic, and nutrient load to the disposal area. The impact on groundwater will also be evaluated in the annual report.	
		5. If monitoring indicates that groundwater is being significantly impacted, the applicant will coordinate with the Regional Board regarding appropriate corrective actions. These may include rapidly infiltrating wastewater to reduce TDS levels or developing additional application sites.	
Groundwater Depth.	PS	1. The proposed wastewater storage ponds will be designed to maintain a minimum five-foot groundwater/infiltration pond separation, in accordance with the recommendations detailed in the Siegfried Engineering report (March 2001) and applicable requirements of the Regional Board. These design measures, and others as appropriate, will be implemented as the ponds are planned and constructed.	LS
4.9 LAND USE AND PLANNING			
General plan and Zoning Consistency.	LS	None required.	
Land Use Conflicts.	LS	None required.	
4.10 MINERAL RESOURCES			
Potential Impacts on Mineral Resources.	LS	None required.	
4.11 NOISE			
Exposure to People to Significant Noise Levels.	LS	None required.	
Increase in Noise Levels Generated by New Development.	LS	None required.	

S=Significant, CS=Cumulatively Significant, PS=Potentially Significant, LS=Less than Significant, SOC Adopted=Statement of Overriding Considerations previously adopted.

TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation
4.12 POPULATION AND HOUSING			
Potential Project Impacts on Population.	LS	None required.	
Housing Availability and Demand.	LS	None required.	
4.13 PUBLIC SERVICES			
Impacts on Public Services.	LS	None required.	
4.14 RECREATION			
Project Effects on Recreational Facilities.	LS	None required.	
4.15 TRANSPORTATION/TRAFFIC			
Project Impacts on Traffic Under Existing Plus Project Conditions.	LS	None required.	
Cumulative Traffic Impacts.	S	1. The applicant will be responsible for payment of the proportionate share of the Crossroads project for the following traffic improvements required under Cumulative Plus Project conditions: 2. At the Louise Avenue/Southbound I-5 ramps, widen the I-5 southbound off-ramp to include two left-turn lanes and a shared through/right-turn lane, and widen the westbound approach to include two left-turn lanes and a through lane. 3. At the Louise Avenue/Northbound I-5 ramps, widen the I-5 northbound off-ramp to include a shared left-turn/through/right-turn lane and a right-turn lane, the westbound approach to include a through a shared through/right-turn lane.	LS

S=Significant, CS=Cumulatively Significant, PS=Potentially Significant, LS=Less than Significant, SOC Adopted=Statement of Overriding Considerations previously adopted.

TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation
		4. At the Vierra Road/McKinley Avenue and Yosemite Avenue/McKinley Avenue intersections, close Vierra Road to form a cul-de-sac at McKinley Avenue, and extend D'Arcy Parkway across the Southern Pacific railroad tracks to a new signalized T-intersection at Yosemite Avenue with one left-turn lane and one through lane in eastbound Yosemite Avenue; one through lane and one right-turn lane on westbound Yosemite Avenue; and one left-turn lane and one right-turn lane on southbound D'Arcy Parkway.	
4.16 UTILITIES AND SERVICE SYSTEMS			
Impacts on Potable and Irrigation Water Systems.	LS	None required.	
Impacts on Sewer System.	LS	None required.	
Project Impacts on Sewage Treatment and Disposal System.	PS	1. The City/applicant shall secure and permit additional lands as required to provide for disposal of a total of 600, 000 gallons per day of treated effluent from WRP-1. 2. Further development within the Crossroads project shall be limited to that which can be adequately served by the approved treatment/disposal capacity of WRP-1.	LS
Impacts on Storm Drainage System.	LS	None required.	
Impacts on other Utilities.	LS	None required.	

S=Significant, CS=Cumulatively Significant, PS=Potentially Significant, LS=Less than Significant, SOC Adopted=Statement of Overriding Considerations previously adopted.

3.0 PROJECT DESCRIPTION

3.1 BRIEF DESCRIPTION

The proposed project is located within the southern portion of the City of Lathrop and involves various proposed activities related to the existing, approved Crossroads Commerce Center, or Crossroads Industrial Park, project. The City is located within San Joaquin County (Chapter 1.0, Figures 1-1 through 1-3). The project involves three principal elements: 1) improvements that would add tertiary treatment capability to the existing City of Lathrop sewage treatment and disposal system (WRP-1) located within the Crossroads project; 1) a proposal for extension and amendment of an existing Development Agreement (DA) between the City of Lathrop and the project developer; and 3) development of a remedial interim land disposal system for the treatment facility. This remedial portion of the project would involve development of approximately 13 acres of effluent storage ponds and preparation of approximately 44 acres of land for agronomic application of existing secondary and future tertiary treated wastewater.

3.2 PROJECT OBJECTIVES

The objective of the proposed project from the applicant's perspective is to provide for continued and timely buildout of the Crossroads project in accordance with approved land use designations, zoning and subdivision maps. The proposed DA amendment and sewage treatment and disposal improvements are or may be required in order to meet these objectives. Background information on the Crossroads project and existing sewage treatment system is provided in Chapter 1.0 (Introduction) of this document.

The objectives of the City of Lathrop with respect to the project are to permit continued buildout of the Crossroads project while ensuring that the project conforms to the Lathrop General Plan, zoning ordinance and adopted development standards. Additionally, the City needs to remedy problems with the existing sewage effluent disposal system in order to accommodate anticipated urban development within Crossroads and the City as a whole, and to comply with adopted City general and master plans.

Both parties have as an objective the need to improve and expand means for recovering and distributing costs of infrastructure construction and operation associated with development of Crossroads.

3.3 PROJECT LOCATION

The proposed project is located in the City of Lathrop in San Joaquin County, CA. The Crossroads Commercial Park encompasses 528 acres located on two separate parcels (Figure 3-1, Chapter 1.0, Figure 1-3, 1-4). The northerly parcel, located at the southeast corner of Harlan Road/I-5 and Louise Avenue, consists of 44 acres. The southerly parcel, consisting of 484 acres, is bounded to the north by the E.R. Carpenter Company, a cogeneration facility and the Pilkington Glass plant, by I-5/Harlan Road to the west, by Howland Road and the Southern Pacific Railroad to the south and by the J.R. Simplot Company to the east. The Crossroads sites include numerous Assessor's Parcel Numbers. The sites are located within Township 2 South, Range 6 East, Section 3, Mount Diablo Base and Meridian. The project site is shown on the Lathrop 7.5-minute US Geological Survey topographic quadrangle.

The existing WRP-1 and evaporation/percolation ponds are located on approximately 30 acres located in the southern portion of the 484-acre portion of the Crossroads site, between Howland Road and (future) Christopher Way at the east end of Nestle Way (Figure 3-1, Figures 1-5, 1-6). About 30% of this area is in use at this time. City lands include Assessor's Parcel Numbers 198-130-19 through 22.

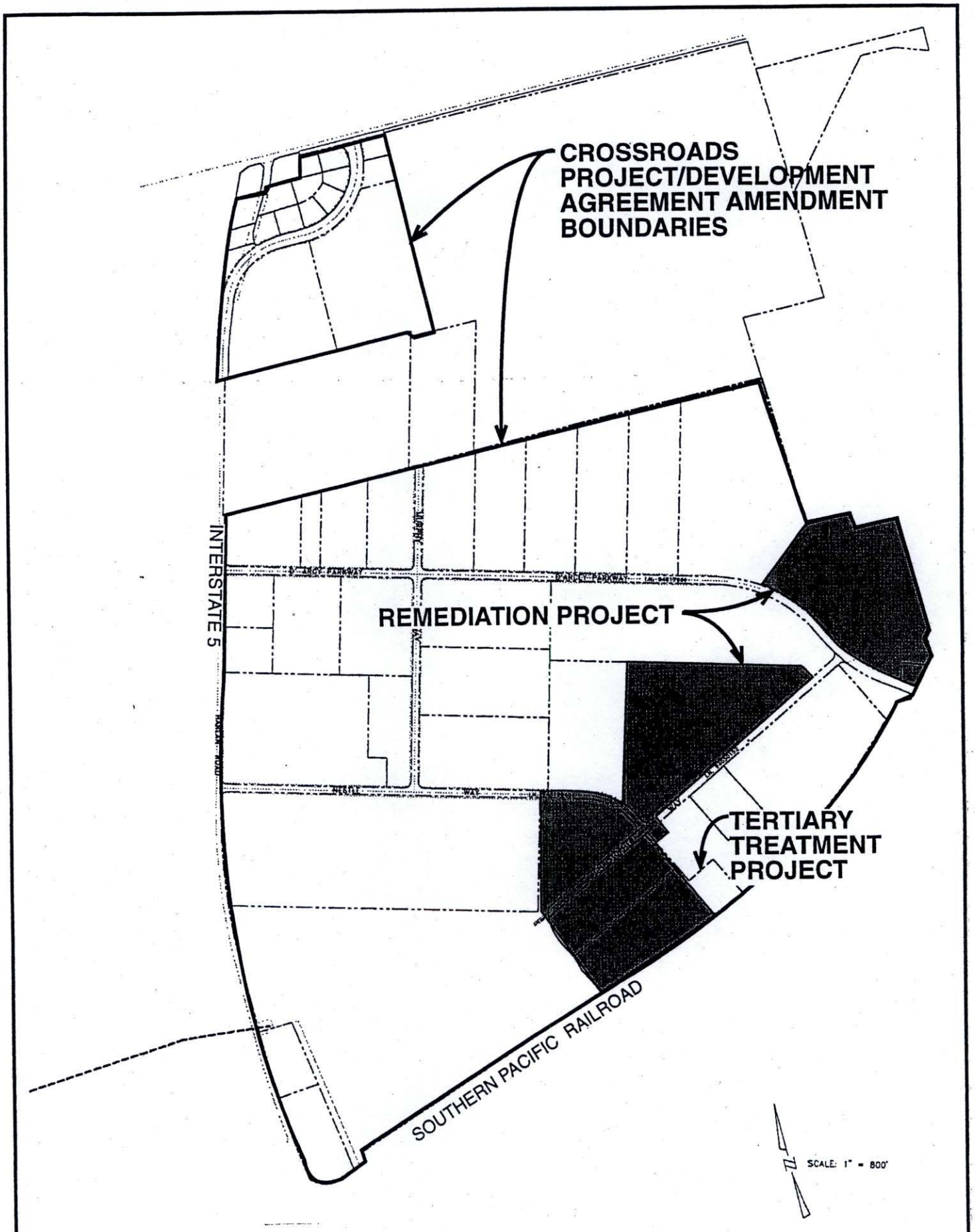
Lands proposed for use in storage and land disposal of treated effluent are located south and north of Christopher Way. Lands proposed for storage include two parcels totaling approximately 17.2 acres. These lands, a portion of the City-owned lands at the existing treatment facility, are located south of Christopher Way (Figures 3-1, 3-2). Lands proposed for agronomic application of treated effluent include a total of 43.8 acres in three parcels. Land Application Sites 1 and 2 are located adjacent to and north of the future alignment of Christopher Way, and Site 3 is located east of the proposed extension of D'Arcy Parkway.

The proposed tertiary treatment improvement would be located within the existing WRP-1 site, immediately north of the existing treatment facility (figures 3-1, 3-3).

3.4 PROJECT CHARACTERISTICS

3.4.1 DEVELOPMENT AGREEMENT AMENDMENT

The proposed project includes an amendment to the existing Crossroads Development Agreement (DA). This element of the project will be referred to as the "DA Amendment" elsewhere in this document. The existing DA, executed in March 1992 and amended twice since then, addresses a range of issues including land use restrictions for the project, improvement requirements, utility connection fees, other conditions of



Source: SIEGFRIED ENGINEERING

INSITE ENVIRONMENTAL

Figure 3-1
LOCATION OF PROJECT ELEMENTS

Other City/developer financial matters related to cost recovery and reimbursement for project improvements, including creation of a Mello-Roos District for improvement, operation and maintenance of WRP-1.

Portions of the proposed DA amendment meet the requirements of the CEQA Guidelines for consideration as a "project." According to the Guidelines, a "project means the whole of an action, which has a potential for resulting in either a *direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment.*"

Aspects of the DA amendment that may result in physical change would include the extension of the DA term; the term extension will permit continued development within the project area under regulations in place at the time of approval. Development within the Crossroads project could continue under current general plan designations, zoning and other City development requirements. The proposed term extension would not, however, involve any known increase in the amount of development permitted within the project area, or be expected to result in any reduction in development standards or requirements for the project over existing conditions.

Elements of the proposed DA extension that would not result in physical changes would include administrative changes or other changes that are purely financial in nature, for example, the adoption of new sewage and/or storm drainage connection fees. In many cases, financial provisions are associated with development conditions, but the subject improvements are the result of past development approvals and are not the subject of current discretionary action. Likewise, proposed administrative clarifications are a reflection of current practices and would not result in any substantial change in physical activity or potential for environmental impact. These elements of the DA amendment are not considered in the environmental impact analysis portion of this document.

Proposed remedial improvements to WRP-1 that would provide for disposal of treated effluent would involve physical changes. These improvements are identified and described in the following section and the environmental effects of these changes are addressed in Chapter 4.0 of the document.

Proposed tertiary treatment improvements would involve minor physical changes. This aspect of the project is described in Section 3.4.3.

3.4.2 Remediation Project

This element of the proposed project involves the construction and operation of the alternative water recycling and reuse system for approximately 250,000 gallons per day of treated secondary effluent from WRP-1. The proposed reclamation/reuse system would replace an existing evaporation/percolation (E/P) pond system at WRP-1 which has not performed as anticipated at the time of plant construction (see Chapter 1.0). This portion of the project will be known as the "remediation project" in this document

The proposed remediation project would require a Planning Commission approval of a Site Approval application for the proposed land use. It is anticipated that the proposed site for land disposal of wastewater will ultimately be replaced by other disposal sites located outside the Crossroads project. At that time, wastewater disposal use of the site would cease, and the lands would revert to private ownership for industrial development.

The remediation project includes the construction of a new lined 52.0 acre feet (ac-ft) storage pond, the conversion/reconstruction of the existing E/P ponds into an additional 68.9 ac-ft of lined storage ponds and development of a new system for land application of recycled water on approximately 43.8 ac of crop lands within the Crossroads Commerce Center. Each element of the project is described in turn below; the location of each element is shown on Figure 3-2.

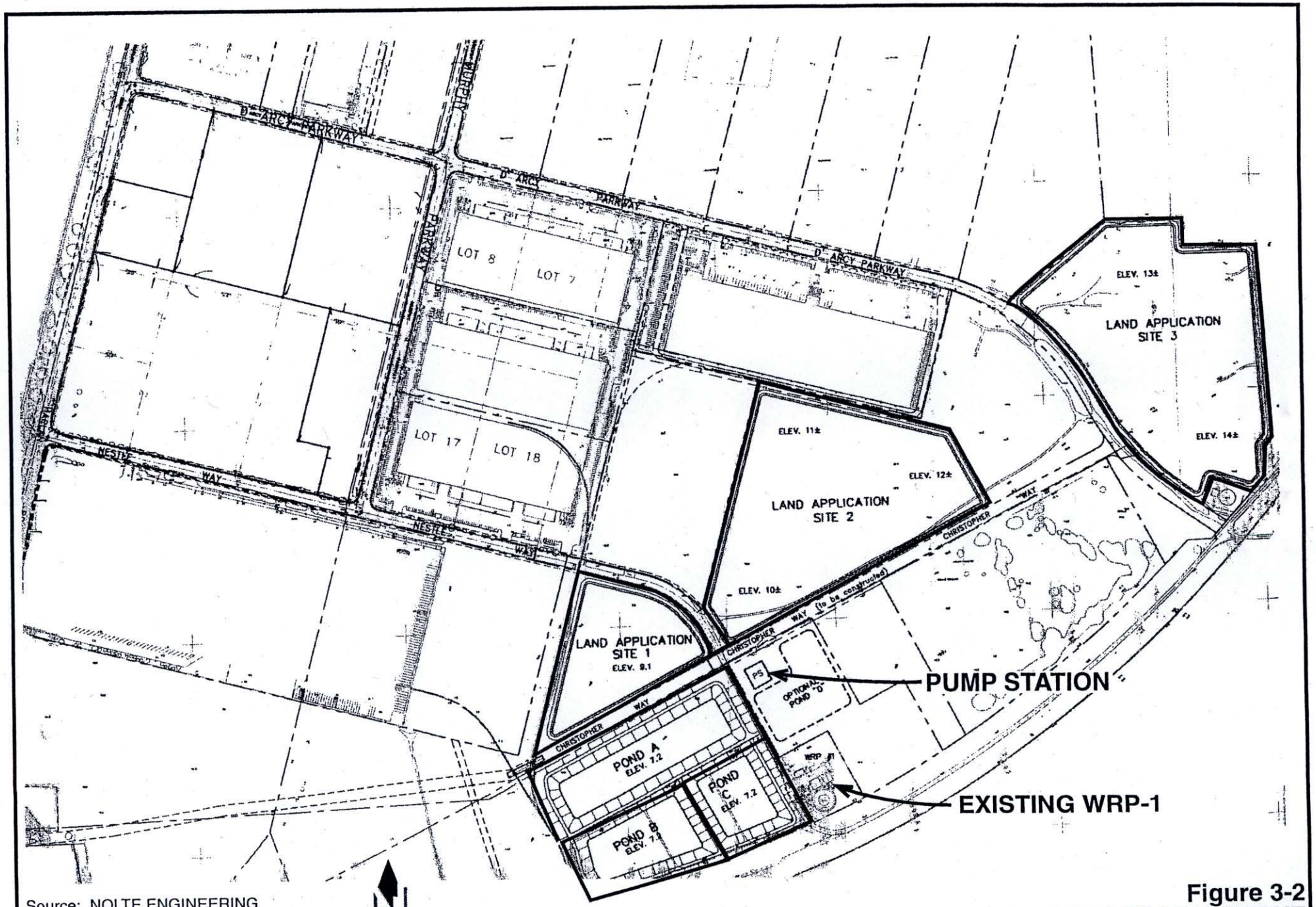
This portion of the project is also described in more detail in the Report of Waste Discharge (Nolte, 2001) (Appendix A).

Wastewater Storage Ponds. The proposed wastewater storage ponds (Ponds A, B, and C, Figure 3-2) will provide storage for treated effluent during periods when crop irrigation needs are reduced due to climatic conditions (i.e. winter conditions). The ponds are sized to provide a minimum of two feet of freeboard during 100-year precipitation conditions. Maximum pond area would be about 12.9 acres. The ponds will be lined and will have interior sidewall slopes of 3:1. The total pond storage volume for Ponds A, B, and C with a maximum water depth of 10 feet (freeboard of 2 feet) would be 97.6 ac-ft, or 81 percent of the pond volume.

Because the proposed wastewater storage ponds will hold less than 1,500 ac-ft, and will have a depth less than 15 feet, the ponds will be exempt from California Department of Water Resource, Division of Safety of Dams, jurisdiction. The City of Lathrop will adopt the resolution specified in Section 6025.5 of the California Water Code to permit this exemption.

Recycled Water Distribution System. The recycled water would be pumped from the pond to the proposed land application sites via recycled water lines to be located within approved street rights-of-way for future alignments of Christopher Way and D'Arcy Parkway.

This portion of the proposed project would implement a portion of the Lathrop Recycled Water Master Plan. The proposed system would consist of approximately 3,300 lineal feet of 20-inch diameter PVC pipeline. The proposed recycled water lines would be installed in advance of street construction. Consequently, construction of this portion of the project would involve trenching, bedding, pipeline placement and backfill separate from street construction. Proposed construction would be located within areas of existing disturbance for agriculture and/or weed control. Trenched areas would be restored to the condition of surrounding lands following construction.



Source: NOLTE ENGINEERING

INSITE ENVIRONMENTAL

Figure 3-2
REMEDIATION PROJECT FACILITY LAYOUT

Land Application of Reclaimed Wastewater. Secondary effluent from WRP-1 will be reclaimed for agricultural irrigation. The land application system consists of three sites (Figure 3-2) totaling approximately 43.8 net acres. The three land application sites will be utilized for the cultivation of forage crops. Net acreage (after accounting for setbacks and surrounding berms and roads) for the three sites is as follows:

Land Application Site 1	6.0 ac
Land Application Site 2	18.2 ac
Land Application Site 3	19.6 ac
Total	43.8 ac

Each land application site would be graded to maximize its use for cultivation of forage crops, such as alfalfa. Each site would include a perimeter road on a berm 3-feet higher than the land application area, to retain all applied water within the site.

Treated sewage effluent would be stored in Ponds A, B, and C and applied to the three land application sites as required (Figure 3-2). More detailed information regarding water management is contained in the Report of Waste Discharge (Nolte, 2001, Appendix A).

As wastewater cannot be applied to the agricultural sites when natural precipitation levels and moisture are high, treated effluent would be retained in storage ponds until demanded by the agricultural operator. Pond storage volumes are estimated to range from zero in September of all years to approximately 1,000 acre-inches in March of normal years and as much as 1,150 acre-inches during March of a heavy rainfall year (i.e. 100-year frequency).

The agricultural operation within the three application areas would involve management of a year-round forage crop (e.g. alfalfa) by a contract farmer. Treated wastewater would be pumped from the ponds into the distribution system under pressure and delivered to agricultural areas using spray irrigation as a preferred method. The proposed system has been designed to provide necessary setbacks for spray irrigation. However, the farmer, at his discretion, may also employ flood irrigation. Monitoring wells would be installed to characterize the existing groundwater, and to assess compliance with future waste discharge requirements.

The quality of effluent produced at the WRP-1 is excellent. Average values for BOD, TSS, and TN are 3.0, 9.0, and 3.6 mg/L, all within the existing Waste Discharge Requirements limits for WRP-1. Because the WRP-1 is designed to treat a flow of 600,000 gallons per day (gal/d), it is expected that effluent quality for flows up to 250,000 gal/d will continue to meet and/or exceed permit requirements. Values for TDS, which currently average 1250 mg/L, are expected to decline, as additional wastewater flows will consist primarily of domestic sanitary wastewater, rather than the high-strength industrial flows which currently dominate inflows. In addition, the City has adopted (Chapter 51, Lathrop Code of Ordinances) industrial pretreatment requirements which

will apply to further industrial development within Crossroads as well as other portions of the City. The City has also drafted a Demineralization Plan to reduce TDS impacts.

Application of treated effluent would occur at agronomic rates. This is essentially the amount of water required to maintain crops while accounting for evaporation, plant transpiration and soil moisture conditions. In addition, wastewater will be applied to minimize the buildup of soil salinity. These interrelationships are discussed in more detail in the Report of Waste Discharge and are reflected in Table 3-1 and 3-2, water balances for "normal" year and 100-year conditions. As shown in Column 16 of the Tables total wastewater application would be approximately 70 inches per year at all of the application sites. Application rates would range from less than 1 inch per month during wet months to nearly 12 inches during a peak demand month.

The proposed application of wastewater to the agricultural areas has been evaluated in the report of waste discharge for potential effects on organic material and nitrogen loading. Projected loading for these constituents is well below accepted limits, and these constituents would be expected to be consumed within the soil profile. It is anticipated, however, that some fraction of the Total Dissolved solids (TDS) would be flushed through the soils to the underlying aquifer. Without any other controls, anticipated TDS levels in the percolate would be similar to or slightly higher than background TDS levels in groundwater. TDS levels in wastewater can and will be reduced by the City's enforcement of its existing pre-treatment requirement for industrial wastewater. Pre-treatment requirements are set forth in Chapter 51, Sewers, of the Lathrop Code of Ordinances. Section 51.19 of that Chapter prohibits industrial discharges of wastewater without first obtaining a City permit and the permit may include requirements for pretreatment of industrial wastewaters as well as other discharge restrictions.

3.4.3 Tertiary Upgrades

Currently, the Crossroads treatment facility is designed to produce 600,000 GPD of secondary treated denitrified wastewater effluent. The City's existing and proposed utility master plans provide that WRP-1 (as well as other City sewage treatment facilities to be constructed) will be upgraded to provide a tertiary level of sewage treatment. Improvements to increase WRP-1 treatment capacity to 1.2 MGD, and then 3.0 MGD, as part of the Phase 1A/1B project, are undergoing design and environmental review at this time. The Phase 1A improvements are expected to be complete by the end of 2002.

The applicant may pursue the addition of tertiary treatment capability to WRP-1 in advance of the completion of the Phase 1A project, particularly if the Phase 1A project is delayed. The improved effluent quality would permit the applicant and the City to secure other land disposal options, either to meet need associated with further development at Crossroads or to replace the remedial system. The proposed remedial disposal system described in the previous section provides a temporary disposal solution for about half of the 600,000 gallons per day treatment capacity of WRP-1. As development interest in Crossroads continues and sewage disposal demands increase, the City and applicant will

need to secure other lands for disposal, not only to meet new demands but also to provide for replacement of the approximately 60 acres of industrial land which would be devoted to sewage disposal under this proposal.

The proposed tertiary treatment system would insure consistent reliable compliance with the anticipated effluent limits for BOD, TSS, turbidity, and permit the City to explore the widest potential range of disposal options. The tertiary system would consist of flow equalization, chemical addition, coagulation, flocculation, and direct filtration, as described below.

Flow Equalization. The flow equalization system would store secondary effluent during peak flow periods and meter it back during low flow periods. This would allow the coagulation, flocculation, and filtration system to be sized to meet a lower design flow. The project would include an equalization tank or basin with a detention time of approximately 2 hours at the peak hourly flow.

Coagulation/Flocculation. Polymer and or alum coagulant would be added to the secondary effluent in a short detention time (less than 10 seconds) rapid mix tank followed by approximately 25 minutes of flocculation. The dose and specific makeup of the polymer/alum coagulant would be determined based upon lab tests conducted with actual plant effluent.

Filtration. The project would include equipment which would provide direct filtration of flocculated secondary effluent. A number of State-certified package filter units are currently available. The models differ principally with respect to the type of media used, the direction of water flow, and their backwashing cycle.

Disinfection. The proposed disinfection system would employ ultraviolet light (UV) equipment as opposed to chlorination. UV disinfection has been successfully demonstrated by other treatment plants and is accepted by regulators as an alternative to chlorination. UV disinfection is especially appropriate for low turbidity effluents such as is produced at WRP-1.

These potential improvements are considered in this Supplemental EIR on a programmatic level. Where feasible, potential environmental effects have been defined and mitigation measures identified. If undertaken, these improvements will require subsequent environmental review under CEQA. However, the subsequent review may be limited to review of this document for its adequacy in addressing environmental concerns associated with the project.

TABLE 3-1
NORMAL-YEAR WATER BALANCE FOR CITY OF LATHROP LAND APPLICATION SYSTEM

			Storage ponds								Application area				
	Precip.,	ET,	Inflow, ac-in		Outflow, ac-in		Volume, ac-in		Depth,	Area,	Percolation, in			Net ET,	Applied
Month	in	in	WW	Precip.	Evap.	WW	Change	Net	ft	ac	Natural	Applied	Total	in	WW, in
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Jan	3.12	0.91	285	44	8	23	299	698	6.4	10.2	2.21	0.52	2.73	0.00	0.52
Feb	2.66	1.71	258	38	17	66	212	910	8.1	10.8	0.96	1.51	2.47	0.00	1.51
Mar	1.74	3.42	285	25	37	194	80	990	8.7	11.0	0.00	2.73	2.73	1.69	4.42
Apr	0.94	5.05	276	13	55	296	-62	928	8.2	10.8	0.00	2.65	2.65	4.11	6.76
May	0.84	6.42	285	12	69	364	-136	792	7.1	10.4	0.00	2.73	2.73	5.58	8.32
Jun	0.15	7.33	276	2	77	431	-229	563	5.2	9.8	0.00	2.65	2.65	7.19	9.83
Jul	0.03	7.99	285	0	78	468	-261	302	2.9	9.0	0.00	2.73	2.73	7.96	10.69
Aug	0.05	7.06	285	1	64	427	-204	98	1.0	8.4	0.00	2.73	2.73	7.01	9.74
Sep	0.17	5.13	276	2	43	333	-98	0	0.0	8.1	0.00	2.65	2.65	4.96	7.61
Oct	0.71	3.29	285	10	27	233	36	36	0.4	8.2	0.00	2.73	2.73	2.58	5.31
Nov	1.30	1.59	276	19	13	129	153	189	1.9	8.7	0.00	2.65	2.65	0.29	2.94
Dec	1.59	0.90	285	23	8	90	211	400	3.8	9.3	0.69	2.05	2.73	0.00	2.05
Total	13.31	50.81	3360	189	497	3053	0	-	-	-	3.86	28.33	32.19	41.36	69.70

Wastewater flow, gal/d:	250,000
Total pond catchment area, ac:	14.2
Application area, ac:	43.8
Hydraulic conductivity, in/hr:	0.06
Safety factor, percent:	6.1
Maximum pond storage, ac-ft:	82.5

(1) Water balance begins in October (storage ponds are empty at end of September).
(2) Average monthly precipitation data from 1988 to 2000 from CIMIS station at Manteca, CA.
(3) Average monthly evapotranspiration data from 1988 to 2000 from CIMIS station at Manteca, CA.
(4) Wastewater inflow equals daily wastewater flow times days per month.
(5) Precipitation inflow equals precipitation (2) times total pond catchment area (area within pond crest for all three ponds).
(6) Evaporation outflow equals evapotranspiration (3) times pond water surface area (11) from previous month.
(7) Wastewater outflow equals applied wastewater (16) times application area.
(8) Volume change equals WW inflow + precipitation inflow - evaporation outflow - WW outflow.
(9) Net volume equals running total of volume changes (8), beginning in October.
(10) Depth of pond water estimated as quadratic function of net volume (9). Depth assumed to be the same in all ponds.
(11) Total pond water surface area estimated as quadratic function of net volume (9).
(12) Natural percolation equals precipitation (2) - evapotranspiration (3); zero when negative.
(13) Applied water percolation equals total percolation - natural percolation.
(14) Total application equals safety factor times hydraulic conductivity times 24 hrs times days per month, or natural percolation (12), whichever is greater.
(15) Net ET equals evapotranspiration (3) - precipitation (2); zero when negative.
(16) Applied wastewater equals applied percolation (13) + net ET (15).

TABLE 3-2
100-YEAR WATER BALANCE FOR CITY OF LATHROP LAND APPLICATION SYSTEM

			Storage ponds								Application area				
	Precip.,	ET,	Inflow, ac-in		Outflow, ac-in		Volume, ac-in		Depth,	Area,	Percolation, in			Net ET,	Applied
Month	in	in	WW	Precip.	Evap.	WW	Change	Net	ft	ac	Natural	Applied	Total	in	WW, in
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Jan	5.13	0.91	285	73	9	0	350	769	7.0	10.4	4.22	0.00	4.22	0.00	0.00
Feb	4.37	1.71	258	62	18	26	276	1045	9.1	11.1	2.66	0.60	3.27	0.00	0.60
Mar	2.85	3.42	285	41	38	184	104	1149	9.9	11.4	0.00	3.62	3.62	0.58	4.19
Apr	1.53	5.05	276	22	57	307	-66	1083	9.4	11.2	0.00	3.50	3.50	3.51	7.01
May	1.38	6.42	285	20	72	379	-146	936	8.3	10.8	0.00	3.62	3.62	5.05	8.66
Jun	0.24	7.33	276	3	79	464	-264	673	6.2	10.1	0.00	3.50	3.50	7.09	10.59
Jul	0.05	7.99	285	1	81	506	-301	372	3.5	9.2	0.00	3.62	3.62	7.94	11.55
Aug	0.08	7.06	285	1	65	464	-243	129	1.3	8.5	0.00	3.62	3.62	6.98	10.59
Sep	0.28	5.13	276	4	44	366	-129	0	0.0	8.1	0.00	3.50	3.50	4.85	8.35
Oct	1.17	3.29	285	17	27	251	24	24	0.3	8.2	0.00	3.62	3.62	2.12	5.73
Nov	2.14	1.59	276	30	13	129	164	188	1.8	8.7	0.54	2.96	3.50	0.00	2.96
Dec	2.61	0.90	285	37	8	84	231	419	4.0	9.4	1.71	1.91	3.62	0.00	1.91
Total	21.83	50.81	3360	310	510	3160	0	-	-	-	9.13	34.04	43.17	38.11	72.15

Wastewater flow, gal/d:	250,000
Total pond catchment area, ac:	14.2
Application area, ac:	43.8
Hydraulic conductivity, in/hr:	0.06
Safety factor, percent:	8.1
Maximum pond storage, ac-ft:	95.8

(1) Water balance begins in October (storage ponds are empty at end of September).

(2) 100-yr annual precipitation depth of 21.83 in for Manteca, provided by California Department of Water Resources, based on precipitation records for Manteca dating back to 1931. The annual value is divided into monthly depths using average monthly precipitation values from CIMIS station at Manteca, CA.

(3) Average monthly evapotranspiration data from 1988 to 2000 from CIMIS station at Manteca, CA.

(4) Wastewater inflow equals daily wastewater flow times days per month.

(5) Precipitation inflow equals precipitation (2) times total pond catchment area (area within pond crest for all three ponds).

(6) Evaporation outflow equals evapotranspiration (3) times pond water surface area (11) from previous month.

(7) Wastewater outflow equals applied wastewater (16) times application area.

(8) Volume change equals WW inflow + precipitation inflow - evaporation outflow - WW outflow.

(9) Net volume equals running total of volume changes (8), beginning in October.

(10) Depth of pond water estimated as quadratic function of net volume (9). Depth assumed to be the same in all ponds.

(11) Total pond water surface area estimated as quadratic function of net volume (9).

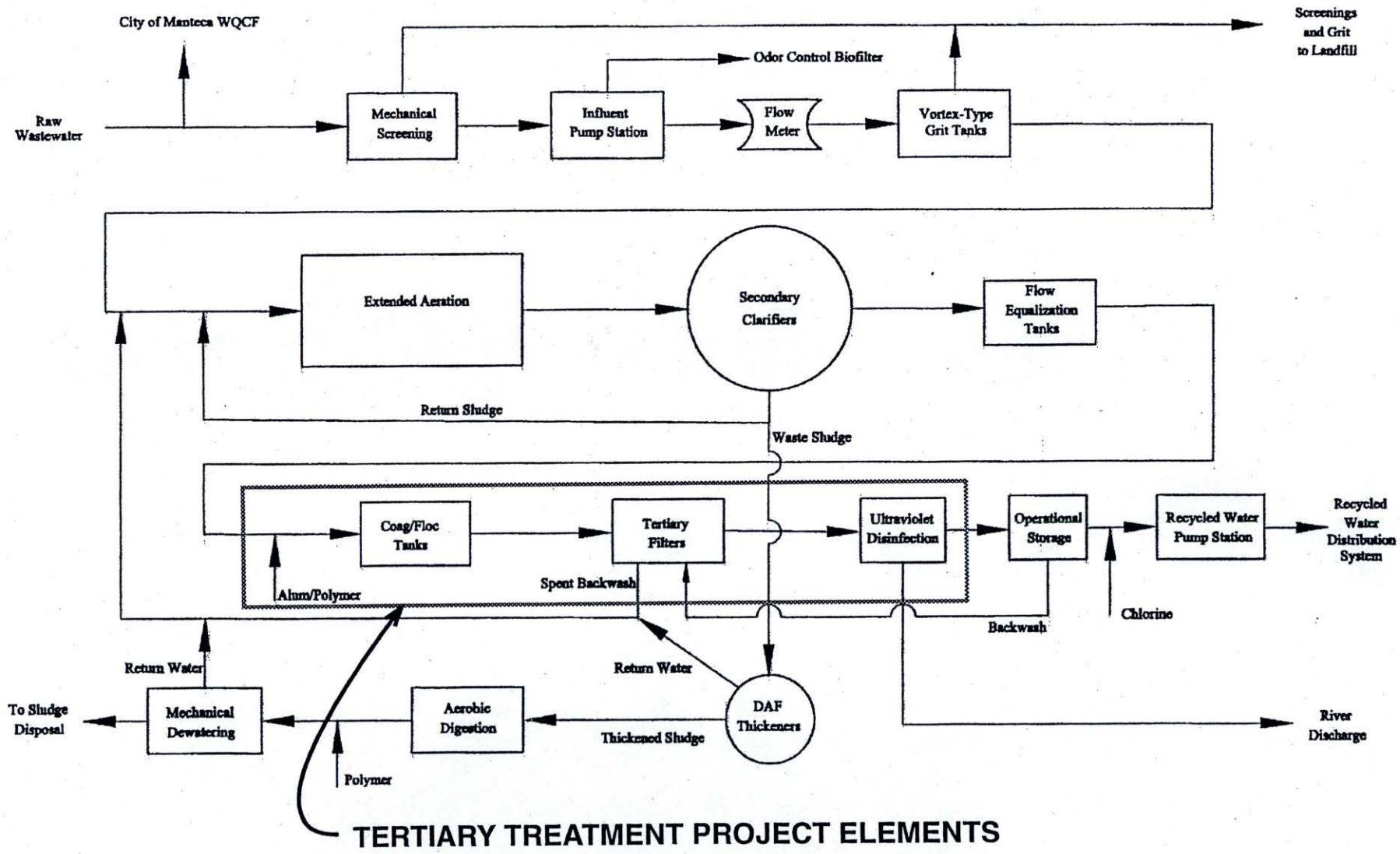
(12) Natural percolation equals precipitation (2) - evapotranspiration (3); zero when negative.

(13) Applied water percolation equals total percolation - natural percolation.

(14) Total application equals safety factor times hydraulic conductivity times 24 hrs times days per month, or natural percolation (12), whichever is greater.

(15) Net ET equals evapotranspiration (3) - precipitation (2); zero when negative.

(16) Applied wastewater equals applied percolation (13) + net ET (15).



Source: NOLTE ENGINEERING

INSITE ENVIRONMENTAL

Figure 3-3
TERTIARY TREATMENT PROJECT

3.5 PERMITS AND APPROVALS

The previous EIR identified the principal discretionary permits and approvals for the overall Crossroads project. Most of these approvals have already been granted by San Joaquin County and the City of Lathrop utilizing the previous EIR. As a representation of permit requirements for the overall project, however, the previous description remains valid.

Permits and approvals required in accordance with the current proposed project would be as follows:

Lathrop Planning Commission	Recommendation to City Council regarding certification of Supplemental EIR
	Recommendation to City Council regarding Development Agreement amendment
	Approval of Site Approval application for proposed wastewater disposal sites
Lathrop City Council	Certification of Supplemental EIR
	Approval of Development Agreement amendment
	Approval of proposed wastewater disposal improvements

Further permit requirements may apply to continuing buildout of the Crossroads project. These requirements will depend on the nature of specific industrial uses proposed for development on individual parcels. Permit requirements may include variances, Use Permits or other special reviews.

4.0 ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION MEASURES

This section describes the potential environmental impacts of the proposed project with respect to the analysis and findings contained in the previous (Crossroads Industrial Park) EIR. This chapter considers 1) whether information presented in the previous EIR is up to date and accurate, 2) whether the impact analysis and/or mitigation measures contained in the previous EIR are applicable to the proposed project and 3) if additional analysis is required to adequately address the potential environmental effect of the project. This document provides additional environmental impact analysis, where required. If additional potentially significant environmental effects are identified, this document prescribes additional mitigation measures that should be applied to the project. The discussion of potential environmental impacts in this EIR relies on various provisions of Section 15152 of the CEQA Guidelines. Most of the potential environmental impacts of the proposed project were accounted for at a general level in the previous EIR on the Crossroads project. These impacts were also addressed, to some degree, by the Mitigated Negative Declarations for improvements to WRP-1 and by the EIR on the City's 1995 Wastewater Facilities Plan. These documents are incorporated by reference in Chapter 1.0. This document makes the determination, where applicable, that some potential environmental effects of the proposed project have been adequately addressed in the previous EIR or other documents, and that those effects are not treated as significant for purposes of this environmental review. The determination of whether any particular environmental effect has been "adequately addressed" is based on the criteria provided in Section 15152(f) of the CEQA Guidelines.

Consistent with the requirements of Section 15153 of the CEQA Guidelines, the City of Lathrop prepared an Initial Study for which the following sections provide technical backup. The information and analysis presented in this chapter are organized in accordance with the CEQA Initial Study Form (Appendix G). The completed Initial Study form is shown in Appendix C.

4.1 AESTHETICS

ENVIRONMENTAL SETTING

The previous EIR did not provide either setting information or impact analysis for aesthetics or visual resources. The Initial Study associated with the document identified no significant visual impacts; therefore, this issue was not discussed further in the EIR. The Mitigated Negative Declarations prepared for construction of WRP-1 and its expansion identified no potential aesthetic impacts and therefore also did not provide information on visual resources.

The visual character of the Crossroads area is predominantly urbanized with intensive commercial development along Louise Avenue and industrial development elsewhere. Industrial development includes large structures, equipment, machinery, stacks and the like. Industrial development activity is concentrated in the northern portion of the site with substantial areas in the southern area remaining vacant. The Crossroads project is surrounded by major transportation facilities including Interstate 5, SR 120, Louise Avenue and the Southern Pacific Railroad. There are no scenic highways on or adjacent to the Crossroads sites. There are no scenic vistas or other scenic resources located within or adjacent to Crossroads.

There is substantial existing night lighting associated with existing Crossroads development. Night lighting is most intense in the vicinity of existing uses, particularly near Louise Avenue where the use of advertising signage is most intense, in conjunction with existing commercial uses. Elsewhere, night lighting is limited predominantly to street lights and security lighting around existing structures.

Visual character in the vicinity of the proposed wastewater disposal site is dominated by industrial uses and vacant land. Industrial uses in the immediate vicinity of the proposed remediation project include the existing wastewater treatment facility, various

warehouses, and the J. R. Simplot plant. Vacant lands in the area, which include the project sites, consist of disked fallow fields, with varying densities of vegetation dependent on the period since the last disking. The exception would be the abandoned LOF wastewater treatment ponds, which are not actively managed and support several species of trees and shrubs. Background views to the south of the project area are limited by a large berm that supports the UPRR tracks.

There are no sensitive visual receptors in the vicinity of the remediation and tertiary treatment projects, and the project site does not provide scenic views.

Environmental Impacts and Mitigation Measures

Significance Thresholds. According to the CEQA Guidelines, a project will ordinarily have a significant effect on the environment if it would have a substantial, demonstrable negative aesthetic effect. A project may have a significant aesthetic effect if it would a) have a substantial adverse effect on a scenic vista, b) substantially damage scenic resources, c) substantially degrade the existing visual character or quality of the site and its surroundings, or d) create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

Impacts on Aesthetic Resources

DA Amendment. The previous EIR identified no potential significant effects of industrial development on aesthetic resources. The Initial Study associated with the previous EIR does state that CC&R's will be required at the tentative map stage for developments in the Crossroads area to ensure cohesive landscaping and architectural styles. Also, conditions will be attached to individual project applications to ensure that potential light and glare do not conflict with motorists on I-5. These concerns are addressed through the City's Site Plan Review process.

Continued industrial development under the Development Agreement, as extended, will involve no new aesthetic effects. The Crossroads area is predominantly industrialized at present, and the proposed DA Amendment would not authorize any more intensive development than is already permitted under existing approvals. The DA Amendment would involve no change in existing controls on design and landscaping within the Crossroads area. Potential aesthetic effects of the DA Amendment are consistent with the negative findings of the previous EIR. This portion of the project would result in no significant aesthetic effect.

Remediation Project. The proposed remediation project would involve reconstruction of pond areas within the existing wastewater plant site and agricultural use and irrigation of the proposed land application areas. Development for agricultural use would include construction of three-foot berms around the perimeter of the land application sites. These proposed uses are consistent with existing uses within and adjacent to the Crossroads site and would be considerably less intensive than prevailing and planned industrial development in the area. The proposed remediation project has no potential to affect drivers on I-5 due to distance from the highway and low intensity of the project. Any landscaping or facilities that may be included as part of the proposed action can conform to existing CC&Rs. This project would not involve lighting. Overall the proposed remediation project has no potential to adversely affect aesthetics or visual resources.

Tertiary Treatment Project. If implemented, the proposed tertiary treatment portion of the project would involve the installation of new sewage treatment facilities within the existing treatment plant site. Potential filtration and disinfection facilities would be relatively small in size and consistent with the visual character of the existing treatment plant. This project would not involve lighting. This portion of the project would not result in any adverse aesthetic affect.

Level of Significance: Less than significant

Mitigation Measures: None required

4.2 AGRICULTURE RESOURCES

Environmental Setting

The previous EIR identified 517 acres of agricultural land that would be affected by the Crossroads project, with 130 acres of this area considered "prime." Dominant crops at the time were oats, alfalfa, and sugar beets. The Crossroads site was subsequently annexed into the City of Lathrop and improved for commercial and industrial purposes, including the installation of urban streets and utility systems. While substantial portions of the Crossroads site remain vacant, no portion of the site is in active agricultural use. Portions of the Crossroads site are designated on the State of California's Important Farmland Map as Prime Farmland and Farmland of Statewide Importance.

All of the parcels associated with the remediation project are currently vacant and are not being used for agricultural production. The proposed Land Application Sites contain soil types that are considered "prime soils" (Veritas fine sandy loam, Merrit silty clay loam,

and Scribner clay loam). The proposed site for wastewater storage and tertiary treatment facilities are currently vacant and are not being used for agricultural production. These areas include prime soils.

All of the lands proposed for development are currently designated and zoned for urban development, and there are no Williamson Act contracts associated with these lands.

Environmental Impacts and Mitigation Measures

Significance Thresholds. According to CEQA, a project may have a significant effect on the environment if it would involve convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use, or impair the agricultural productivity of prime agricultural land. A project may also have a significant effect on agriculture if it would indirectly result in conversion of prime agricultural land or conflict with agricultural zoning or a Williamson Act contract.

Impacts to agricultural resources from development in the Crossroads Industrial Park were addressed in the previous EIR. Impacts consisted of the conversion of approximately 517 acres of agricultural land to urban development, including roughly 130 acres containing prime soil. This was considered an irreversible impact for which there is no effective mitigation. However, the EIR stated that development of the site would result in conversion of only a small amount of the County's overall harvested acreage with a correspondingly small crop value. In an effort to minimize the cumulative loss of agricultural land in the County, the following suggested mitigation measures were identified in the EIR:

1. Protect other existing farmlands of equivalent, or better quality, through the use of Williamson Act contracts.

2. Investigate other direct and indirect farmland protection alternatives such as public or County purchase, or donation of development rights.

3. Consider farmland trusts which can be used effectively to preserve agricultural land.

Conversion of Agricultural Land to Other Uses

DA Amendment. Continuing development of the Crossroads project under the proposed DA Amendment would contribute to the agricultural loses identified in the previous EIR. However, the issue of agricultural land loss within the Crossroads site was rendered moot

upon the County's approval of the Tentative Subdivision Map, followed by the site's incorporation into the City of Lathrop, and the extension of urban streets, services and utilities in conjunction with site development. The Crossroads project is in the process of urbanization pursuant to City land use designations and zoning, and no lands within the project area remain in active agricultural use. Continued development of the Crossroads project pursuant to the approval of the DA Amendment would not involve a significant effect on agriculture.

Remediation Project. Implementation of the proposed remediation project would put approximately 44 acres of currently fallow land into production growing alfalfa while providing a beneficial use of treated wastewater. This is considered a beneficial effect relative to agricultural resources, and no mitigation is required.

Approximately 19 acres of the City's wastewater treatment plant site, including about ten areas of existing pond and nine acres of vacant land, would be converted to ponds for wastewater storage. This would contribute to the loss of agricultural lands identified in the previous EIR. The vacant portion of the pond site is not in active agricultural use, and this site was conveyed to the City of Lathrop and has been planned for wastewater treatment plant purposes. The pond site is designated for utility development and is not zoned for agricultural use or subject to a Williamson Act Contract. Consequently, this portion of the project would not result in any significant effect on agricultural lands.

Tertiary Treatment Project. Similar to the remediation project, the potential tertiary treatment project would be located within lands devoted to the City of Lathrop wastewater treatment facility (WRP-1). The tertiary treatment site is not in active agricultural use, and development of this facility would result in no significant effect on agriculture.

Level of Significance: Less than significant

Mitigation Measures: None required

Project Impacts on Nearby Agricultural Uses

The proposed project would not involve potential for impact on other agricultural lands in the Crossroads vicinity. No aspect of the project would require a Williamson Act cancellation, change in zoning or any other potential influence on the status or use of agricultural lands. Continuing development of industrial uses within Crossroads as well as the proposed remediation and/or tertiary projects would involve no potential for conflict with nearby agricultural uses. All aspects of the project would be located within the Crossroads site and would be substantially buffered from surrounding uses by their

distance from the Crossroads site boundary as well as by the transportation uses that comprise the western, southern, and eastern limits of the Crossroads project. Industrial uses are typically not sensitive to or generators of agricultural/urban conflict.

Level of Significance: Less than significant

Mitigation Measures: None required

4.3 AIR QUALITY

Environmental Setting

The environmental setting section of the previous EIR addressed several factors related to air quality, including the regulatory environment at the time the document was prepared, ambient air quality in the Lathrop area, and climatic conditions in the project region, including temperature, precipitation, and prevailing winds. The previous EIR identified sensitive receptors in the vicinity of the project site, and the nature and status of regional air quality planning. The following sections update setting information provided in the previous EIR.

Regulatory Environment. The Federal Clean Air Act (42 U.S.C. § 7401) requires the adoption of National Ambient Air Quality Standards (NAAQS) to protect public health, safety, and welfare from known or anticipated effects of air pollution. Current standards are set for sulfur dioxide (SO2), carbon monoxide (CO), nitrogen dioxide (NO2), ozone (O3), particulate matter equal to or less than 10 microns in size (PM10), fine particulate matter equal to or less than 2.5 microns in size (PM2.5), and lead (Pb). The State of California Air Resources Board (CARB) has established additional standards that are generally more restrictive than the NAAQS. The federal and state standards have been revised since the certification of the Final EIR, and are shown in Table 4-1.

Regional and Local Air Quality. Specific geographic areas are classified as either "attainment" or "nonattainment" areas for each pollutant based upon the comparison of measured data with Federal and State standards. Lathrop and the project site are located in the San Joaquin Valley Air Basin. The attainment classifications for the basin are shown in Table 4-2. The region is nonattainment for O3 and PM10. CO air quality has improved, and the region has been reclassified to attainment status.

TABLE 4-1
NATIONAL AND CALIFORNIA AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	NAAQS[1]		CAAQS[2]
		Primary[3]	Secondary[4]	Concentration[5]
Ozone (O_3)[6]	1 Hour	0.12 ppm (235 µg/m3)	Same as Primary Standard	0.09 ppm (180 µg/m3)
	8 Hour	0.08 ppm		-
Carbon Monoxide (CO)	8 Hour	9.0 ppm (10 µg/m3)	None	9.0 ppm (10 µg/m3)
	1 Hour	35 ppm (40 µg/m3)		20 ppm (23 µg/m3)
Nitrogen Dioxide (NO_2)	Annual Average	0.053 ppm (100 µg/m3)	Same as Primary Standard	-
	1 Hour	-		0.25 ppm (470 µg/m3)
Sulfur Dioxide (SO_2)	Annual Average	80 µg/m3 (0.03 ppm)	-	-
	24 Hour	365 µg/m3 (0.14 ppm)	-	0.04 ppm (105 µg/m3)
	3 Hour	-	1300 µg/m3 (0.5 ppm)	-
	1 Hour	-	Same as Primary Standard	0.25 ppm (655 µg/m3)
Suspended Particulate Matter (PM_{10})	Annual Geometric Mean	-		30 µg/m3
	24 Hour	150 µg/m3	-	50 µg/m3
	Annual Arithmetic Mean	50 µg/m3		-
Fine Particulate Matter ($PM_{2.5}$)	24 Hour	65 µg/m3	Same as Primary Standard	-
	Annual Arithmetic Mean	15 µg/m3		-
Lead (Pb)	30 Day Average	-	-	1.5 µg/m3
	Calendar Quarter	1.5 µg/m3	Same as Primary Standard	-
Hydrogen Sulfide (HS)	1 Hour	No Federal Standards		0.03 ppm (42 µg/m3)
Sulfates (SO_4)	24 Hour			25 µg/m3
Visibility Reducing Particles	8 Hour (10 am-6 pm, Pacific Standard Time)			In sufficient amount to produce an extinction coefficient of 0.23 per kilometer due to particles when the relative humidity is less than 70 percent.

µg/m3 - micrograms per cubic meter; ppm - parts per million
Source: California Air Resources Board (CARB) 2001

(1) NAAQS(other than O_3, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The O_3 standard is attained when the fourth highest eight-hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when 99 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. For $PM_{2.5}$, the 24_hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact EPA for further clarification and current Federal policies.

(2) California Ambient Air Quality Standards for O_3, CO (except Lake Tahoe), SO_2 (1 and 24 hours), NO_2, PM_{10}, and visibility reducing particles, are values that are not to be exceeded. All others are not to be equaled or exceeded.

(3) National Primary Standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health.

(4) National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

(5) Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 mm of mercury. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 mm of mercury (1,013.2 millibar). Ppm in this table refers to ppm by volume or micromoles of pollutant per mole of gas.

(5) New Federal 8-hour O_3 and fine particulate matter standards were promulgated by EPA on July 18, 1997. The Federal 1-hour O_3 standard continues to apply in areas that violated the standard. Contact EPA for further clarification and current Federal policies.

TABLE 4-2
AMBIENT AIR QUALITY STANDARDS ATTAINMENT STATUS FOR SAN JOAQUIN COUNTY

Pollutant	Designation/Classification	
	Federal Standards	State Standards
Ozone - One hour	Nonattainment/Serious	Nonattainment/Severe
Ozone - Eight hour	Designation To Be Determined	*No State Standard
PM-10	Nonattainment/Serious	Nonattainment
PM-2.5	Designation To Be Determined	No State Standard
CO	Unclassified/Attainment[1]	Attainment
Nitrogen Dioxide	Unclassified/Attainment	Attainment
Sulfur Dioxide	Unclassified	Attainment
Lead (Particulate)	*No Designation*	Attainment
Hydrogen Sulfide	*No Federal Standard*	Unclassified
Sulfates	*No Federal Standard*	Attainment
Visibility Reducing Particles	*No Federal Standard*	Unclassified

CO: (1) 40 CFR Parts 52 and 81 -- Fresno Urbanized Area, Bakersfield Metropolitan Area, Stockton Urbanized Area and Modesto Urbanized Area redesignated on March 31, 1998, effective June 1, 1998 (2) Area has reached attainment status. The request for redesignation was approved by the Air Resources Board on September 24, 1998. The re-designation became final upon action by the California Office of Administrative Law on August 26, 1999.

Source: SJVAPCD 2001

Local air quality is measured at the Stockton-Hazelton Street station, approximately 10 miles north of the Crossroads site. Air quality data for 1998-2000 is shown in Table 4-3. Ozone concentrations exceeded federal standards in 1998 and 1999 and improved to less than the federal standards in 2000. Ozone concentrations exceeded state standards in all three years. PM10 concentrations exceeded state standards in all three years, and did not exceed federal standards.

Environmental Impacts and Mitigation Measures

Significance Thresholds. According to CEQA, a project may have a significant effect on the environment if it would 1) conflict with or obstruct implementation of an Air Quality Attainment Plan, 2) violate or worsen an existing violation of an ambient air quality standard, 3) result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under federal or state standards, 4) expose sensitive receptors to substantial pollutant concentrations, or 5) create objectionable odors affecting a substantial number of people.

Construction Impacts

The previous EIR address general impacts and mitigation measures related to fugitive dust generated during construction. This analysis would apply to all physical construction associated with the current proposed action. Since preparation of the previous EIR, issues related to fugitive dust have been refined by the SJVAPCD to address PM-10 as a specific pollutant. The SJVAPCD has also developed specific control measures for PM-10. Due to the current, more comprehensive treatment of PM-10 pollutants, the measures described below to address PM-10 should be added to the mitigation measures related to fugitive dust in the previous EIR.

During construction activities the SJVAPCD considers PM-10 as the pollutant of greatest concern. The SJVAPCD approach to CEQA analyses of short-term construction impacts is to require implementation of effective and comprehensive control measures in compliance with SJVAPCD Regulation VIII, Fugitive PM10 Prohibitions, rather than to require detailed quantification of emissions. Short-term construction impacts would be considered significant if feasible SJVAPCD construction control mitigation measures are not included as part of the project.

TABLE 4-3

STOCKTON – HAZELTON STREET MONITORING STATION – AMBIENT AIR QUALITY

Pollutant	Averaging Time	California Air Quality Standards	Federal Primary Standards	Maximum Concentrations[1]			Number of Days Exceeding Federal Standard[2]			Number of Days Exceeding State Standard [2]		
				1998	1999	2000	1998	1999	2000	1998	1999	2000
Ozone	1 hr	0.09 ppm	0.12 ppm	0.13	0.14	0.11	1	2	0	10	6	3
	8 hr	none	0.08 ppm	0.100	0.018	0.080	4	4	0	–	–	–
Carbon Monoxide	1 hr	20 ppm	35 ppm	-	-	-	–	–	–	–	–	–
	8 hrs	9 ppm	9 ppm	7.2	5.3	3.6	0	0	0	0	0	0
Nitrogen Dioxide	1 hr	0.25 ppm	none	0.102	0.106	0.099	–	–	–	0	0	0
	Annual	none	0.053 ppm	0.023	0.024	-	0	0	-	–	–	–
PM10	24 hrs	50 µg/m3	150 µg/m3	106	150	61	0	0	0	8	10	2
	Annual/AAM(3)	none	50 µg/m3	29.1	36.4	26.6	0	0	0	–	--	–
	Annual/AGM(3)	30 µg/m3	none	24.4	30.2	24.9	–	--	--	0	0	0

(1) Concentration units for ozone, carbon monoxide, and nitrogen dioxide are in parts per million (ppm). Concentration units for PM_{10} are in micrograms per cubic meter ($\mu g/m^3$).

(2) For annual standards, a value of 1 indicates that the standard has been exceeded. For PM_{10}, calculated days are the estimated number of days that a measurement would have been greater than the level of the standard had measurements been collected every day. The number of days above the standard is not necessarily the number of violations of the standard for the year.

(3) Federal standard is annual arithmetic mean (AAM); state standard is annual geometric mean (AGM).

dash = data not available or applicable.

Source: CARB 2001.

DA Amendment. Continued development within the Crossroads project as a result of approval of the DA Amendment would involve additional industrial and infrastructure construction. The potential air quality effects of this construction were accounted for in the previous EIR. These potential impacts remain significant but would be addressed by the updated mitigation measures outlined below.

Remediation Project. The previous EIR did not specifically address potential air quality impacts associated with the construction of proposed wastewater disposal improvements. These improvements would involve substantial amounts of earth moving and potential for fugitive dust emissions. These improvements would also need to conform to the requirements of SJVAPCD Regulation VIII. Conformance with Regulation VIII would reduce these potential impacts to less than significant.

Tertiary Treatment Project. This element of the project, if implemented, would involve relatively minor earth work but would involve potential for fugitive dust emissions. This aspect of the project would also be subject to the requirements of Regulation VIII.

The implementation of dust control measures as described in Regulation VIII is in most cases required to assure that construction air quality impacts would be less than significant. It should be noted that SJVAPCD Rule 8020 exempts from certain dust controls many site preparation activities whey they are conducted for the purpose of preparing land for growing crops. Therefore, parcels used for growing alfalfa may qualify for these exemptions.

Level of Significance: Potentially significant

Mitigation Measures:

1. During construction, the owners, developers, and/or successors-in-interest will comply with San Joaquin Valley Air Pollution Control District Regulation VIII (Fugitive Dust Rules).

2. The owners, developers, and/or successors-in-interest shall implement the following dust control practices, drawn from Tables 6-2 and 6-3 of GAMAQI, during construction:

   - All disturbed areas, including storage piles, which are not being actively utilized for construction purposes, shall be effectively stabilized of dust emissions using water, chemical stabilizer/suppressant, or vegetative ground cover.

- All on-site unpaved roads and off-site unpaved access roads shall be effectively stabilized of dust emissions using water or chemical stabilizer/suppressant.

- All land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities shall be effectively controlled of fugitive dust emissions utilizing application of water or by presoaking.

- When materials are transported off-site, all material shall be covered, effectively wetted to limit visible dust emissions, or at least six inches of freeboard space from the top of the container shall be maintained.

- All operations shall limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at least once every 24 hours when operations are occurring. (The use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions.) (Use of blower devices is expressly forbidden.)

- Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, said piles shall be effectively stabilized of fugitive dust emissions utilizing sufficient water or chemical stabilizer/suppressant.

- Limit traffic speeds on unpaved roads to 15 mph; and

- Install sandbags or other erosion control measures to prevent silt runoff to public roadways from sites with a slope greater than one percent.

Significance After Mitigation: Less than significant

Implementation: The applicants will be responsible for compliance with the above standards in future project design and construction.

Monitoring: The SJVAPCD is responsible for monitoring compliance with district rules during project construction.

Impacts of Continued Industrial Development on Air Quality

The previous EIR did not address the potential for the location of industrial point sources of air pollutant emissions. Such uses are, however, under the permitting jurisdiction of

the SJVAPCD, and these permitting actions would be subject to review by the City of Lathrop. Permit review by the SJVAPCD would ensure that ambient air quality standards are not exceeded, and potential impacts on air quality would be less than significant.

The previous EIR did consider the potential impacts of industrial development within the Crossroads area on emissions from motor vehicles on regional ozone levels and local carbon monoxide levels. The previous EIR indicated that the project as a whole would contribute ozone precursors to the regional airshed in access of the current SJVAPCD significance standards. This was identified as a significant adverse impact of the project.

As discussed in Section 4.15 Transportation; the Crossroads project is not generating traffic at the levels predicted in the previous EIR. Consequently both traffic and associated air pollutant emissions are reduced from levels predicted in that document. Continued development of the project pursuant to the proposed DA Amendment would involve no new or increased impact on regional ozone precursor emissions. No additional mitigation measures are necessary.

Similarly, reduced trip generation associated with continuing development of the Crossroads project would result in reduced potential impacts on carbon monoxide levels at affected intersections. Predicted levels at each intersection were identified as less than significant under future (with project) conditions but would be significant at the intersection of Yosemite Avenue and Airport Way. With reduced traffic, potential impacts at this intersection would be reduced.

Mitigation measures identified in the previous EIR were generalized and not focused on City implementation. The SJVAPCD's GAMAQI provides a list of potential mitigation measures that should be implemented when significance thresholds are exceeded. These mitigation recommendations are incorporated below.

Level of Significance: Potentially significant

Mitigation Measures:

1. The potential air quality mitigation measures described in Tables 6-5 and 6-6 of GAMAQI shall be incorporated into in design and development of the Crossroads project where appropriate. These measures may include transit improvements, park and ride lots, pedestrian and bicycle-enhancing infrastructure, ride-sharing and vanpool programs and incentives and telecommuting facilities and/or programs.

Significance After Mitigation: Potentially significant

Implementation: The applicants will be responsible for implementation of the above standards in future project design, construction and operation.

Monitoring: The Community Development Department will determine feasibility and appropriateness of mitigation measures. The SJVAPCD would, as applicable, verify compliance with applicable district rules during project design, construction and operation.

Remediation Project Operation Impacts

The previous EIR did not specifically analyze potential air quality impacts associated with operation of a wastewater treatment facility. However, the Mitigated Negative Declaration for the Wastewater Treatment Plant Expansion states that potential odor from the facility will be avoided through plant design. This conclusion is supported by the discussion below.

The principal source of long-term regional emissions is typically motor vehicles. None of the elements of the remediation project would generate more than a few additional vehicle trips. Therefore, additional motor vehicle emissions are considered negligible and there would be no significant regional impact.

Odors would be considered significant if the project would frequently expose members of the public to objectionable odors. Frequent exposure is defined as: 1) more than one confirmed complaint per year averaged over a three year period, or 2) three unconfirmed complaints per year averaged over a three year period.

The proposed project includes storage ponds for secondary treated effluent that could generate odors. The ponds would be aerated to maintain a surface dissolved oxygen concentration of at least 1.0 mg/L preventing the development of anaerobic conditions. The storage ponds would be located within the existing wastewater facility and near, or adjacent to existing percolation ponds already in operation. WRP-1 is located in an industrialized area with no sensitive receptors in the vicinity. As there has not been an average of more than one confirmed complaint per year, nor three unconfirmed complaints per a year, from the existing ponds, it is not anticipated that there would be a substantial number of complaints from the proposed expansion. Therefore, no significant odor impact is anticipated.

Operation of the proposed disposal fields are not expected to result in odor generation. Wastewater application to the disposal areas would be controlled so that standing water is present after 48 hours. All wastewaters would be retained on-site.

Level of Significance: Less than significant

Mitigation Measures: None required

4.4 BIOLOGICAL RESOURCES

ENVIRONMENTAL SETTING

The Initial Study associated with the previous EIR determined that the project would have a negligible impact, or no impact, on biotic resources. It was stated that because the project site had been historically modified and used for agriculture there was little likelihood of any impacts on the biotic community. Therefore, there was no additional analysis of biological resources in the EIR.

The Initial Study for construction of WRP-1 identified a potentially significant impact to endangered, threatened, or rare species, or their habitats. However, the Initial Study indicates that potential impacts on biological resources will be mitigated by policy provisions of the Lathrop General Plan and West Lathrop Specific Plan. Mitigation measures were said to include implementation of a Habitat Management Plan for the Swainson's Hawk. This provision has been implemented more broadly by the adoption of the San Joaquin County Multi-Species Habitat Conservation Plan.

With the exception of the proposed remediation project site, the majority of the Crossroads projects area has been developed with industrial uses or has been prepared for such development. The Crossroads project area is dominated by two vegetation community types; ruderal/disturbed and landscape/ornamentals. Interspersed among these communities are roads, buildings, and other development. The ruderal/disturbed vegetation community at the project site is periodically disked and dominated by weedy species including ripgut brome (*Bromus diandrus*), foxtail fescue (*Vulpia myuros* var. *hirsuta*), and small-flowered fiddleneck (*Amsinckia menziesii* var. *menziesii*) along with other ruderal grasses and forbs. Vegetation density in this community changes dramatically depending on the time period since the last disking. Recently disked parcels support little vegetation and are dominated by bare soil. Parcels that have not been disked for several seasons have relatively dense vegetation.

The landscape/ornamentals community is associated with buildings and other developed portions of the Crossroads area. This community consists of lawns and a variety of shrubs and trees typically used for landscaping.

Wildlife occurring in the Crossroads area consists of species common to disturbed, ruderal, and agricultural landscapes and are tolerant of nearby development and human disturbance. Many of the species that use the ruderal/disturbed plant community can also be found in the landscaped/ornamental areas. Typical bird species include yellow-billed magpies (*Pica nuttallii*), European starling (*Sturnus vulgaris*), killdeer (*Charadrius vociferous*), mourning dove (*Zenaida macroura*), Northern mockingbird (*Mimus polyglottos*) and American crow (*Corvus brachyrhynchos*). The dominant mammal species is black-tailed hare (*Lepus californicus*), with ground squirrels (*Spermophilus beecheyi*), and western pocket gopher (*Thomomys mazama*) also present.

The proposed remediation project site was subjected to a detailed literature review and field reconnaissance during the preparation of this Supplemental EIR. The following sections describe biological resources documented during field surveys, including methodology, descriptions of vegetation communities and wildlife habitats found at the site, and discussions of special-status species with potential to occur in the project area.

The remediation project site was surveyed by EDAW biologists on March 29 and 30, 2001 to map and describe vegetation communities and wildlife habitats, record plant and wildlife species observed on the project site, and to delineate all jurisdictional wetlands and waters of the U.S. in the area.

The remediation site was walked in its entirety. All plant and animal species encountered at the project site were recorded, as well as the potential for the project area to support additional wildlife resources. The existing level of disturbance was also noted. Specific surveys to confirm the presence or absence of special-status species were not part of the field investigation. However, the potential for special-status species to occur in the project area was assessed and all suitable habitat for these species was noted. Additionally, the project area was reviewed for its potential to support migratory or other wildlife movement corridors.

A list of special-status species with potential to occur in the project vicinity was developed through searches of the California Natural Diversity Data Base (CDFG 2001) and the California Native Plant Society (CNPS) Electronic Inventory (Skinner and Pavlik 1994, rev. 1999), reviews of previous documents, and past experience in the project area. Database searches were conducted for the Lathrop USGS 7.5 minute topographic quadrangles (where the project is located) and all neighboring quadrangles. Special-status species considered included listed, proposed for listing, or candidates for listing under the state and federal Endangered Species Acts of species of concern to the US Fish and Wildlife Services (USFWS) and/or California Department of fish and Game (CDFG); and plant taxa on California Native Plant Society (CNPS) Lists 1 and 2.

The potential for special-status natural communities to occur in the project area was also considered. A wetland delineation was performed for the remediation project area, using

the Routine Determination Method as described in the 1987 Corps of Engineers Wetland Delineation Manual (ACOE 1987).

The remediation project area is highly disturbed and supports only one vegetation community type: ruderal/disturbed. The ruderal/disturbed vegetation community at the project site is periodically disked and dominated by weedy species including ripgut brome (*Bromus diandrus*), foxtail *fescue (Vulpia myuros* var. *hirsuta*), and small-flowered fiddleneck (*Amsinckia menziesii* var. *menziesii*) along with other ruderal grasses and forbs. All plant species found on the project site during the field survey are listed in Appendix B. Vegetation density in this community changes dramatically depending on the time period since the last discing. Recently disked parcels, support little vegetation and are dominated by bare soil. Parcels that have not been disked for several seasons, have relatively dense vegetation.

Wildlife observed in the project area primarily consists of species common to the disturbed, ruderal and agricultural landscapes found in the vicinity of the project parcels. A complete list of all wildlife species observed in the project area is also included in Appendix B. Common birds observed included yellow-billed magpies (*Pica nuttallii*), turkey vulture (*Cathartes aura*), European starling (*Sturnus vulgaris*), killdeer (*Charadrius vociferous*), white-crowned sparrow (*Zonotrichia leucophrys*), and mourning dove (*Zenaida macroura*).

A pair of red-tailed hawks (*Buteo jamaicensis*) was observed nesting east of Land Application Site 2 between the former Libbey-Owens-Ford treatment ponds. Ground squirrels (*Spermophilus beecheyi*), black-tailed hare (*Lepus californicus*), and western pocket gopher (*Thomomys mazama*) were the only mammals observed. In addition, one reptile, western fence lizard (*Sceloporus occidentalis*) was observed in the project area.

Information was compiled on several special-status plant and wildlife species that have the potential to occur in the vicinity of the proposed project area. Detailed information on special-status plant and wildlife species is tabulated in Appendix B. No occurrences of special-status plant species have been reported in previous documents addressing the project site. No special-status plant species were observed in the project area during the field survey, and none are expected to occur based on habitat conditions and current management of the project parcels (e.g. regular disking).

One special-status wildlife species, a Swainson's hawk (*Buteo swainsoni*), was observed during the field survey. Swainson's hawks are listed as threatened under the California Endangered Species Act. The single bird was observed foraging in the project area. Portions of the project site are also considered potential habitat for the burrowing owl, which is considered a species of special concern by both the USFWS and CDFG. Although no burrowing owls were observed during field surveys, habitat conditions are suitable for this species in portions of the project area. General ecological information for

the Swainson's hawk and burrowing owl, reported occurrences, and suitable habitats within the project area are presented in Appendix B.

Several plant communities considered sensitive by the CDFG have been reported in the project vicinity. These communities include coastal and valley freshwater marsh, elderberry savanna, Great Valley cottonwood riparian forest, Great Valley mixed riparian forest, Great Valley oak riparian forest, and northern hardpan vernal pool. None of these communities, or other sensitive plant communities, were found in the project area. No wetlands or "other waters" were observed in the project area.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Thresholds of Significance. The proposed project would result in significant biological impacts if project-related actions directly or indirectly resulted in the following:

- The taking of species that are listed, proposed for listing, or candidates for listing as threatened or endangered under the State or Federal Endangered Species Acts;

- The temporary or permanent loss of designated critical habitat, or substantial amounts of habitat for species listed as threatened or endangered, or proposed for listing under the State or Federal Endangered Species Acts;

- The loss of, or change in, substantial areas of natural vegetation or wildlife habitats such that the maintenance of populations of native plant or animal species in the project vicinity would be threatened;

- The reduction or change in natural vegetation communities or wildlife habitat such that populations of state and locally recognized sensitive species would be reduced to such an extent that they would become listed or candidates for listing under the Federal Endangered Species Act;

- The violation of the California Fish and Game Code, Migratory Bird Treaty Act, Clean Water Act, or other State or Federal regulations pertaining to biological resources.

The previous EIR did not identify any potentially significant impacts to biological resources and includes no species mitigation for vegetation, wildlife, or wetlands. The Initial Study for construction and expansion of WRP-1 does not call out specific impacts to biological resources, but states that "...all potential impacts on biological resources will be mitigated as development occurs under the General Plan and West Lathrop Specific

Plan." This provision has been implemented more broadly by the adoption of the San Joaquin County Multi-Species Habitat Conservation Plan.

The following impact and mitigation discussion supplements the previous documents based on the results of the recent field review. Because no special-status plants, sensitive plant communities, or wetlands occur on the project site, no impacts to these resources are expected, and they are not discussed further. Impacts and mitigation focus exclusively on potential effects on wildlife species.

Loss of Habitat for Common Wildlife Species

DA Amendment. Ongoing development of the Crossroads project will result in additional conversion of existing vacant lands which support ruderal habitat and the common wildlife species associated with this habitat. Ruderal and disturbed habitat areas are common on the project vicinity and do not support endangered, rare or threatened sensitive plant or wildlife habitat values. Continued development of these areas would not result in significant environmental effects.

Remediation Project. Implementation of the proposed remediation project would result in both temporary disturbance and removal of ruderal habitat areas that support several common wildlife species. Approximately 63 acres of existing ruderal/disturbed habitat would be replaced by wastewater storage ponds and alfalfa fields. However, ruderal/disturbed habitat is common in the project region and implementation of the proposed action would not substantially reduce the availability of this habitat or the numbers or extent of common wildlife species in the area. In addition, both the wastewater storage ponds and alfalfa fields will provide habitat value to a number of wildlife species, further reducing the overall affect of the proposed action. The expansion of the wastewater treatment facility would not have a significant affect on common wildlife species.

Tertiary Treatment Project. This element of the project would be located within the existing WRP-1 area and would involve the disturbance of minor amounts of ruderal/disturbed habitat, or developed, areas. As discussed above, this element of the project would not involve significant effects on biological resources.

Level of Significance: Less than significant

Mitigation Measures: None required

Swainson's Hawk Foraging

Swainson's hawks are known to occur in the project area (NDDB 2001) and have been observed foraging in the vicinity of the proposed project site. Therefore, remaining vacant lands within the Crossroads project as well as lands associated with the remediation project may be considered potential foraging habitat for Swainson's hawk.

The Swainson's hawk is listed as threatened under the California Endangered Species Act. Because of the widespread decline in available foraging habitat for Swainson's hawk in California, CDFG often requires compensation for removal of foraging habitat for this species. Since completion of the IS/MND, the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP) was finalized. The SJMSCP functions as a Habitat Management Plan and addresses Swainson's hawk, as well as additional special-status species in San Joaquin County. The project site is within the SJMSMP coverage area and participation in the plan is available to the proposed project. If the City or an applicant elect to participate in the plan, they must coordinate with the plan administrator and the San Joaquin County Council of Governments (COG). COG makes a determination regarding processing requirements, conducts any necessary surveys and establishes mitigation requirements.

DA Amendment. Continuing development within the Crossroads area would result in conversion of existing vacant and disturbed lands through urban industrial uses. This would result in the loss of existing Swainson's hawk foraging habitat values.

Remediation Project. Development of the proposed remediation project would involve removal of approximately ten acres of land which is currently vacant and suitable for Swainson's hawk foraging for development of the proposed wastewater storage ponds. The removal of 9-10 acres of Swainson's hawk foraging habitat is considered to be a significant adverse environmental impact. The project will also involve the conversion of approximately 44 acres from their existing vacant/disturbed status to permanent alfalfa production.

Alfalfa fields are considered suitable foraging habitat for Swainson's hawk. Therefore, conversion of Land Application Sites 1, 2, and 3 to alfalfa production will have no effect on the availability of foraging habitat for this species. This is consistent with implementation procedures in the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP). The plan considers most changes of use on agricultural lands (in this case restoring former agricultural lands to production) to trigger no actions or requirements related to the SJMSCP.

Tertiary Treatment Project. This element of the project would involve an incidental amount of land conversion and would be located within the existing WRP-1 facility. The tertiary treatment project would not result in a significant effect on Swainson's hawk foraging.

Level of Significance: Potentially significant

Mitigation Measures:

1. The project applicant shall mitigate for the removal of Swainson's hawk foraging habitat in conjunction with new development within the Crossroads area, including development of the proposed storage ponds, by implementing any one, or a combination of, the following mitigation measures:

    a. The property owners and/or the project applicant will pay appropriate fees to the SJMSMP implementing body to compensate for the conversion of lands to development. The current fee is $1,500 per acre for the SJMSMP compensation category applicable to the project. Specific terms of SJMSMP participation shall be determined and executed in coordination with the SJCOG prior to construction being initiated.

    b. The property owners and/or project applicant shall enter into a habitat mitigation/management agreement with CDFG to ensure a no-net-loss of habitat value. Compensation for removal of foraging habitat may occur through contributions to a mitigation bank, habitat enhancement, placement of off-site lands into a conservation easement, or other mechanisms negotiated with CDFG. The agreement shall be fully executed prior to construction being initiated.

Significance After Mitigation: Less than significant

Implementation: The applicant will be responsible for payment of fees or developing and implementing the mitigation agreement with CDFG. They may retain biologists or other specialists to assist with these actions.

Monitoring: The Department of Community Development will be responsible for ensuring that fees have been paid or appropriate agreements with CDFG have been entered into.

Potential Impacts on Raptor Nesting

A pair of red-tailed hawks was observed nesting within the abandoned LOF wastewater storage ponds, east of the proposed Land Application Area 2, in the vicinity of the proposed remediation project. Detailed raptor nesting surveys were not conducted in the remainder of the Crossroads project.

DA Amendment. Continuing development of the Crossroads project would involve new construction as well as associated noise and disturbance. Construction activity during the breeding period for red-tailed hawks, Swainson's hawks and other protected raptor species could result in the disturbance of breading and nesting activity as well as potential for nest abandonment and mortality to young and eggs. Further development should be preceded by annual surveys for raptor nesting activity.

Remediation Project. Construction, grading, earth moving, and crop production would result in noise and other disturbances that could affect these birds. If disturbances were to occur during the breeding and nesting season (roughly February to August) project activities could result in nest abandonment and mortality to young and eggs. Although red-tailed hawks are not considered a special-status species, Section 3503.5 of the California Fish and Game Code prohibits the removal of raptor nests. Disturbance resulting in nest abandonment could be considered removal of the nest and would be a significant adverse impact.

Swainson's hawks were not observed nesting on or near the project area. However, Swainson's hawks could also use trees surrounding the abandoned LOF wastewater storage ponds for nesting. Swainson's hawks have been recorded nesting along Yosemite Road approximately 1.25 miles east of the project site (NDDB 2001). If Swainson's hawks were to nest at the abandoned ponds, and project activities were initiated during the breeding and nesting season (March through August), nest abandonment as described above for red-tailed hawks could occur. The Swainson's hawk is listed as threatened under the California Endangered Species Act. Mortality to eggs or young resulting from nest abandonment would be a violation of the act and would be considered a significant adverse impact.

Tertiary Treatment Project. The proposed tertiary treatment project would involve relatively minor disturbance within an existing disturbed area located several hundred feet from existing trees. This portion of the proposed facility is not expected to result in any potential effect on raptor nesting.

Level of Significance: Potentially significant

Mitigation Measures:

1. If site grading or construction activities are scheduled to occur during the breeding season for protected raptors (March through August), then prior to issuance of any grading and/or building permits, the applicants or the SJMSCP Joint Powers Authority (JPA), as applicable, shall retain a qualified raptor biologist to conduct pre-construction surveys for nesting raptors on the project site and on adjacent lands within 500 feet of the project site boundaries. Such surveys shall be conducted within 30-days prior to ground disturbance and shall be prepared in accordance with the protocol authorized in consultation with the CDFG and/or as specified in the SJMSCP, as applicable.

2. If protected raptors are found nesting within the areas surveyed, the raptor biologist will, in compliance with the SJMSCP and/or in consultation with the CDFG determine the appropriate setbacks on the project site within which construction will be prohibited until after the conclusion of the breeding season. If applicable, the ODS shall implement other "Incidental Take Avoidance Measures" as specified in the SJMSCP and/or as determined in consultation with the CDFG.

Significance After Mitigation: Less than significant

Implementation: The applicant will be responsible for retaining a qualified biologist to conduct raptor surveys, and for incorporating biologist recommendations into project plans and schedules.

Monitoring: The Department of Public Works will determine compliance with this prior to initiation of construction

Potential Impacts on Burrowing Owl Nesting and Foraging

DA Amendment. Continuing development of the Crossroads project would involve the potential for impacts on burrowing owl nesting and foraging. Site-specific surveys of potential future development areas have not been conducted. Conformance with the mitigation measures outlined below would reduce this potential effect to less than significant.

Remediation Project. The CNDDB has no records of burrowing owls occurring at the project site, and no evidence of burrowing owls was observed during field surveys. However, anecdotal information indicates owls have been observed in the Crossroads

vicinity. Burrowing owls could occur on site since comprehensive species-specific surveys have not been conducted, or could locate on the site in the future. Although several of the parcels have been disked recently, burrowing owls could occur in the margins of the parcels or in the immediate vicinity where project activities could adversely affect nesting birds during the breeding season. Burrowing owls are considered a species of special concern by CDFG and are also protected under the Federal Migratory Bird Treaty Act. If burrowing owls are present on-site, grading or other ground disturbance could result in mortality to individual owls. In addition, if burrowing owls nest adjacent to the project parcels, project activities could result in nest abandonment and mortality off-site (as described above for nesting raptors). Any mortality to burrowing owls would be considered a significant adverse impact.

Tertiary Treatment Project. The tertiary treatment project would be located within an existing disturbed portion of the City's existing WRP-1. Disturbance associated with this development would be incidental and would not be expected to result in any adverse effect on burrowing owls. As the owls are accustomed to locating nests within disturbed sites, however, the proposed tertiary treatment facility site should be inspected prior to construction, in accordance with the following mitigation measures.

Level of Significance: Potentially significant

Mitigation Measures:

1. Prior to initiation of site grading or other ground disturbing activities the owners/applicant shall coordinate with SJCOG regarding potential impacts on burrowing owl. The owners/applicant shall pay required fees and implement take avoidance measures as required by COG.

Significance After Mitigation: Less than significant

Implementation: The applicant will be responsible for retaining a qualified biologist to conduct burrowing owl surveys and for implementing appropriate avoidance and compensation measures if burrowing owls are found.

Monitoring: The Department of Public works will be responsible for ensuring that the above requirements have been implemented prior to construction.

4.5 CULTURAL RESOURCES

Environmental Setting

The previous EIR did not address cultural resources. The Initial Study associated with the previous EIR states that no cultural resources are known to occur in the Crossroads area and that past disturbance from agriculture activities would have disrupted/destroyed any surface resources that may have occurred on the site. The Initial Study for WRP-1 construction and expansion also identifies that no cultural resources would be affected at the project site. It is also noted that an archaeological and cultural resource investigation was conducted during early stages of preparing the West Lathrop Specific Plan. Based on information compiled to support these past documents, it is assumed that there are no known cultural resources sites within the project area.

The Lathrop General Plan acknowledges the potential for cultural resources in urbanizing areas and includes provision for mitigation of impacts where those resources are present. The General Plan EIR indicates that "known archaeological and cultural resources could be inadvertently damaged through the development process," and that "it is possible that archaeological and cultural resources that have not been found and mapped may be unearthed during the construction process and become damaged or lost." The following mitigation is applicable to all development within the City.

> Mitigation against the potential loss of known archaeological and cultural resources will be included at the time of development application in accordance with the procedures of CEQA Guidelines, Appendix K. Locations cannot be made known to the general public if vandalism of important finds is to be avoided. The alternatives for development design in areas of known resources must be reviewed by Native Americans having competence in understanding the importance of the resources and of the desired methods to assure their preservation.

Environmental Impacts and Mitigation Measures

Thresholds of Significance. Appendix G of the CEQA Guidelines indicates that a significant effect on the environment may result if the project will cause a substantial adverse change in the significance of a historical resource or unique archaeological resource; directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; or disturb any human remains, including those interred outside of formal cemeteries. Significance may be evaluated in accordance with the

eligibility criteria for inclusion in the National Register of Historic Places (NRHP) (36 CFR 60.4) and/or the CEQA Guidelines, as appropriate.

Impacts on Undiscovered Cultural Resources

DA Amendment. The previous EIR and the associated Initial Study identified no impacts and no need for mitigation measures associated with cultural resources for the Crossroads project. Continued development of the Crossroads project would involve no new potential for impact on cultural resources.

Remediation Project. The previous EIR did not identify the potential for cultural resources impacts associated with the development of lands within the Crossroads project. The Initial Study for construction and expansion of WRP-1 also did not identify potential for impacts or the need for mitigation measures for cultural resources. However, mitigation measures from the Lathrop General Plan and EIR (approved December 1991) were summarized in the Initial Study as outlined in the previous section.

Tertiary Treatment Project. The tertiary treatment element of the project would be located within an existing developed area, a portion of WRP-1. This area has been disturbed and would not likely contain any undisturbed cultural resources. No further cultural resource investigation would be warranted in conjunction with development of this portion of the project.

Level of Significance: Less than significant

Mitigation Measures: None required

Inadvertent Disturbance of Subsurface Resources

Past environmental analyses have indicated that there are no known cultural resources sites in the project area, and proposed mitigation measures would prevent damage to any resources that would be identified during field surveys. However, there remains the potential that subsurface resources may be discovered during excavations associated with project construction. Some disturbance of surfaces resources during excavation is unavoidable; however, continued construction after evidence of subsurface resources has been unearthed can be avoided through mitigation, reducing potential for demolition or substantial damage to significant cultural sites. This would be considered a potentially significant effect.

The Lathrop General Plan provides a mitigation measure for the inadvertent damage to cultural resource sites.

> Mitigation against the potential loss of as yet unknown archaeological and cultural resources will require close monitoring of construction activities by the City. The close proximity of properties intended for development to natural watercourses will be taken as a signal of the potential for unearthing yet unknown resources. In such cases, the City will instruct developers and construction foremen of the potential for damage to artifacts and provide written instructions as to the importance and necessity of halting all excavation work until significance of the finds can be evaluated by competent archaeological and Native American specialists.

Those requirements are more adequately encompassed by the mitigation described below.

Level of Significance: Potentially significant

Mitigation Measures:

1. If buried cultural resource, such as chipped or ground stone, historic debris, building foundations, or human bone, are inadvertently discovered during ground-disturbing activities, work will stop in that area and within 100 feet of the find until a qualified archaeologist can assess the significance of the find. If necessary, the archaeologist will develop appropriate treatment measures in consultation with the Department of Public Works and Community Development and other agencies as appropriate.

2. All personnel associated with excavations and earth moving activities will be made aware of the types of materials that could indicate the presence of a cultural resources site and the appropriate actions if these materials are found. The owner/project applicant will make arrangements for a qualified archaeologist to be available to evaluate potential finds prior to initiation of ground disturbing activities.

Significance After Mitigation: Less than significant

Implementation: The applicant will ensure that this measure is incorporated into bid documents and contracts with construction contractors.

Monitoring: The Department of Public Works will be responsible for ensuring that this measure has been incorporated in to bid documents and will be the primary contact for any cultural resource materials be unearthed.

4.6 GEOLOGY AND SOILS

ENVIRONMENTAL SETTING

The previous EIR and Initial Study for WRP-1 found that development of the Crossroads project would involve no significant effect regarding geology and soils. Therefore, this issue was not discussed further, and no environmental setting information was provided. The following new information provides background for the consideration of the potential environmental effects of the project.

Geology. The project site is located in the Great Central Valley, which occupies the central portion of California between the Sierra Nevada mountain range to the east and the Coast Ranges to the west. The valley was created approximately 650,000 years ago by the reoccurrence of large lakes carving a gap through the mountain range to the west, which drained into the Pacific Ocean through a low pass just south of the City of San Francisco (USGS 2000). Sediment deposition in the Central Valley is attributed to the Sacramento and San Joaquin Rivers.

The City of Lathrop is located in the central portion the Central Valley. The elevation of the wastewater storage and disposal site is between 10 and 15 feet NGVD (National Geodetic Vertical Datum). The topography of the site is generally flat with the exception of some small mounds of fill material and minor topographic variations. The San Joaquin River is located approximately one mile west of the project site on the opposite side of Interstate 5.

"Geologic hazard" is a term used to describe potentially dangerous and destructive actions that may result from a specific geologic event such as an earthquake or volcanic activity. These hazards include such phenomena as liquefaction, subsidence and landslides. There are no geologic hazards that would affect the project site. The majority of the seismic activity in the Central Valley occurs along the foothills of the surrounding mountain ranges. The proposed project is located in an area of relative geological inactivity near the central portion of the valley. The project site is not located near any Alquist-Priolo Earthquake Fault Zones nor have any seismic hazard zones been identified for lands within the USGS 7.5-Minute Series Lathrop quadrangle. The nearest active fault is the Greenville fault located in Alameda County approximately 21 miles southwest of the project area.

Soils. Soils in the project area are generally characterized as deep, productive, and well-drained alluvium from granitic rock sources. The predominant soil types in the vicinity of the project site are Timor loamy sand, Tinnin loamy sand, Veritas fine sandy loam, Merritt silty clay loam, and Scribner clay loam. Both Timor loamy sand and Tinnin

loamy sand are characterized by rapid permeability, low available water capacity, a high water table, and a water intake rate of approximately three inches per hour. Veritas fine sandy loam is characterized by moderate to rapid permeability, moderate available water holding capacity, and a water intake rate of roughly 1.5 inches per hour. Merritt silty clay loams generally exhibit a high water table, poor drainage, moderately slow permeability, high water capacity, and a water intake of approximately 0.3 inches per hour. Scribner clay loams typically have a high water table, moderately slow permeability, a very high available water capacity, and a water intake rate of 0.5 inch per hour. In addition to the above characteristics, Timor loamy sand, Tinnin loamy coarse sand, and Veritas fine sandy loam all have hardpan characteristics. Hardpan is a layer of extremely heavy hard soil that water and plants cannot easily penetrate. Hardpans may be located at various depths below the ground surface.

Environmental Impacts and Mitigation Measures

The previous EIR did not identify any impacts or mitigation measures related to geology and soils. The Initial Study for construction and expansion WRP-1 noted that development could be exposed to seismic activity but referred to the General Plan EIR to address the issue. The Seismic Goals and Policies of the General Plan (p. 6-2) require conformance with the Uniform Building Code, soils studies and other measures which would minimize potential concerns associated with seismic shaking. These requirements would apply to all development within the Crossroads project.

Significance Thresholds. According to CEQA, a project may have a significant effect on the environment if it would involve substantial exposure of people or improvements to injury or damage from geologic hazards such as earthquake fault rupture, strong seismic ground shaking, liquefaction or landslides; impacts on unique geologic features; substantial topsoil or productivity loss; substantial soil erosion or siltation; exposure to expansive soil; or development on soils which cannot support use of on-site wastewater disposal systems where sewers are not available.

Geology and Related Hazards

The DA Amendment, remediation project and tertiary treatment aspects of the proposed project would each involve physical land construction activities and potential for conflict with geologic hazards to the degree that they are present on the site. However, there are no known active or inactive faults are located in this portion of the Central Valley; therefore, impacts associated with strong seismic ground shaking and seismic-related ground failure, including liquefaction and landslides, would not occur. Construction of the

project would not affect any known unique geologic features or geologic features of unusual scientific value, as none are located within the study area.

Level of Significance: Less than significant

Mitigation Measures: None required

Potential Impacts Related to Soil

Project activities would not result in substantial erosion or loss of topsoil. In addition, the topography on the project site is generally flat, further reducing the potential for erosion and eliminating landslide concerns. Projects more than five acres in size would be subject to Clean Water Act requirements including the preparation of a Storm Water Pollution Prevention Plan.

The geologic conditions and soil characteristics of the site are well suited for industrial development and the construction of proposed wastewater storage and disposal areas. No expansive soils occur on the project site. The proposed project would not have any significant effects related to geology, soils, or related hazards.

Level of Significance: Less than significant

Mitigation Measures: None required

4.7 HAZARDOUS MATERIALS

Environmental Setting

The environmental setting information in the previous EIR addressed hazardous materials issues related to the Crossroads area, including storage, use and disposal of hazardous materials, the effects of past industrial practices in the project area, and remediation of soil and groundwater contamination which has resulted from these practices. Concerns identified included spills from upset conditions as well as process waste storage and disposal related to the Libbey-Owens-Ford facility located north of Crossroads. Spills from this source were reportedly cleaned-up; on-site waste disposal has ceased, but residual waste materials remain in the area.

The previous EIR reported the existence of groundwater contamination from the former Occidental Chemical Corporation site, now J. R. Simplot, located east of the Crossroads site. This situation which involved contamination with ethylene dibromide (EDB) and dibromochloropropane (DBCP) has been undergoing remediation since 1982 by a groundwater extraction, carbon adsorption and re-injection process.

An internet search for other potential sources was conducted for the project vicinity during preparation of this Supplemental EIR. Three databases were searched for information: US Environmental Protection Agency EnviroQuery, California State Water Resources LUFTIS and Central Valley Regional Water Quality Control Board (CVRWQCB) SLIC. Sources identified in the previous EIR within the project vicinity included the Libbey-Owens-Ford glass manufacturing facility and the J. R. Simplot fertilizer manufacturing facility. The CVRWQCB SLIC database indicated that both facilities continue being supervised by the CVRWQCB for investigation and remediation of spills. LOF is conducting a preliminary site investigation for a release of diesel fuel. J.R. Simplot continues remediation of groundwater for a release of EDB and DBCP. The databases reported no additional sources in the vicinity.

Environmental Impacts and Mitigation Measures

The previous EIR examined potential hazardous material impacts resulting from the then-proposed development of the Crossroads project. These impacts included potential interference of new industrial development with groundwater clean up activities and potential limitations on access for new extraction well development. The EIR noted the existence of surface drainage concerns, the need to improve storm drainage to avoid transportation of hazardous solid wastes from the LOF facility, and the potential for construction worker exposure to contaminated shallow groundwater. The EIR included mitigation measures which would address each of these issues.

Thresholds of Significance. Appendix G of the CEQA Guidelines indicates that a significant effect on the environment may result if the project will create a potential public health hazard, will involve the use, production, or disposal of materials which pose a hazard to people or animal or plant populations, or will interfere with emergency response or evacuation plans. The CEQA Initial Study Checklist suggests that significant effects may be associated with accidental explosion or release of hazardous substances, exposure of people to existing health hazards, or an increase in fire hazards.

DA Amendment. Continuing industrial development in the Crossroads project would, as discussed in the previous EIR, involve potential for interference with ground water clean-up activities. However, some recent reports indicate that the Occidential contamination has been stabilized; and additional clean-up activities will not likely be required. The installation of new groundwater wells in the area would still need to be prohibited in order to eliminate potential interference with ground water gradient control and extraction operations. Nonetheless, the mitigation measures from the previous EIR would remain in force and would be adequate for prevention of impact associated with this element of the project.

Development of the Crossroads project has been accompanied by installation and development of a storm drainage system which has, in developed areas, largely resolved previous concerns with surface drainage and localized flooding. This would also be true for any new development pursuant to the amended DA.

Infrastructure development in conjunction with buildout of the Crossroads project would continue to involve potential for worker exposure to contaminated shallow groundwaters. Mitigation measures identified in the previous EIR would address this potential concern.

Remediation Project. The proposed remediation project would involve the construction of lined waste water storage ponds within the existing WRP-1 site and the application of treated sewage effluent to approximately 44 acres of land previously approved for industrial development. The proposed project would not preclude or inhibit groundwater clean-up activities or involve surface drainage concerns. Surface drainage to and from both the pond and the land applications sites would be controlled with perimeter levees. Installation of transportation pipelines could involve potential worker exposure to ground water contamination. The mitigation measures included in the previous EIR would be adequate to address this issue.

No water wells are proposed for the project. However, some mounding of groundwater is expected beneath the storage ponds and irrigated crop areas resulting from infiltration through the clay liner in the storage ponds and infiltration below the irrigated pasture. Mounding would be controlled by water management measures included in Chapter 3.0 Project Description. Mounding, if any, would occur south and west of the active remediation at J.R. Simplot, hydraulically downgradient of the active remediation area. Generally speaking, mounding of groundwater downgradient of a remediation system enhances the control and capture of contaminants. The proponent has contacted J.R. Simplot and CVRWQCB to confirm this analysis.

Level of Significance: Less than significant

Mitigation Measures: None required

4.8 HYDROLOGY AND WATER QUALITY

ENVIRONMENTAL SETTING

This section is based on the Report of Waste Discharge for the proposed remediation project (Nolte 2001). This report is included in the Appendix to this Supplemental EIR.

In the previous EIR, Section V(C) Services and Facilities, describes conditions related to wells, aquifers, water supply, and potential contamination of groundwater. Section V(D). Hazards and Nuisances provides additional information on groundwater contamination in the Crossroads area. However, much of this information is not relevant to the proposed expansion of the wastewater treatment plant. Environmental setting information from the previous EIR pertinent to this analysis is included below.

Flooding. The previous EIR specifically addressed potential flooding on the project site. The Crossroads property is located less than one-mile east of the San Joaquin River. Ground elevations vary from 10 to 15 feet NGVD (National Geodetic Vertical Datum). The site drains to the south with relatively mild slopes. The southwest corner of the Crossroads property is somewhat depressed and is unable to drain by gravity. Embankments for both I-5 and the Southern Pacific Railroad form additional barriers to the southerly movement of surface runoff.

The Crossroads parcel, like much of the area, is protected from the San Joaquin River by levees. The previous EIR noted that failure of these levees had resulted in past flooding at the project site, including an event that occurred in 1955 that resulted from seepage or "sand boils" allowing water to pass under the levees. The previous EIR noted that, at the time of its preparation, potential flood water depth would range from 2-7 feet deep based on the Flood Insurance Rate is effect at the time Maps (Mills and Associates 1989). The Initial Study for the construction and expansion of WRP-1 notes that risk of flooding from the San Joaquin River was reduced/eliminated by reinforcement of the levee along the east bank of the San Joaquin River in connection with flood protection improvements required for development of Weston Ranch in southwest Stockton. These improvements were completed, and the project was excluded from risk of 100-year flooding on the FEMA Maps for the City of Lathrop. Subsequent to these improvements, major storms in 1997 resulted in levee failures elsewhere in the Lathrop vicinity and some damage to

the east bank San Joaquin River levees. However, no widespread flooding resulted, and the levee system was subject to additional improvement in the ensuing years.

The previous EIR noted that, during storm events, on-site ponding of local runoff could result in flooding of the portions of the project site. During February and March of 1983, approximately 200 acres of the Crossroads property were flooded to various depths due to heavy rains and limited means to move water from the project area. The lack of adequate drainage was further compounded by generally shallow groundwater that during severe or prolonged storm events, would limit the capacity of the soil to absorb runoff. Localized drainage concerns have largely been resolved with the installation of urban storm drainage in conjunction will buildout of the approved Crossroads project. While localized drainage concerns may remain, these concerns will be resolved as the storm drainage system is extended to the remainder of the development in conjunction with new industrial site development.

Groundwater Supply and Quality. State and federal laws mandate the protection of designated "beneficial uses" of water bodies. Protection and enhancement of existing and potential beneficial uses are goals of water quality planning. Beneficial uses of groundwater in the San Joaquin River basin include municipal, industrial, and agricultural water supply. Groundwater is recharged by deep percolation of San Joaquin River flow, precipitation, and applied irrigation water. Groundwater quality is generally adequate throughout the San Joaquin Valley groundwater basin, although at shallow depths within the San Joaquin Delta, the water is often saline and high in total dissolved solids (TDS) and dissolved minerals. Specific TDS standards do not exist for drinking water - the need for treatment is generally dependent upon consumer acceptance.

The City draws its entire drinking water supply from groundwater sources. Currently, the City operates five municipal groundwater wells, which supply city residents with potable water. Use of the fifth well was halted in 1995 due to potential contamination from the Sharpe Army Depot. The project site is located down gradient of all City operated wells and would not involve any potential impacts to municipal wells or supplies. Combined capacity of the four operating wells is approximately 5,000 GPM or 7.2 MGD (Nolte Master Plan EIR, 2000). The City currently pumps approximately 2,100-acre feet per year (AFY) of groundwater to meet municipal water demand. Water from the City wells currently meets all State Department of Health Services drinking water standards; the only treatment provided is chlorination at the wellhead.

While the City does not currently obtain supplies from surface water, plans have been approved to convey surface water to the City for municipal use. The South County Surface Water Supply Project (SCSWSP) is a joint project of South San Joaquin Irrigation District (SSJID) and the cities of Lathrop, Manteca, Tracy and Escalon to supply treated potable water to these cities. The project involves construction and operation of a new surface water treatment plant near Woodward Reservoir in Stanislaus County, and a 36.5

mile transmission pipeline with pump stations to transport treated water to turnouts at each city. The quantity of water to be supplied to Lathrop by the SCSWSP will range from 2,050 AFY in 2005 to 11,791 AFY in 2025.

The Crossroads project area is served by Lathrop's municipal water system through a series of 6" to 12" service lines located beneath project site streets. Several large industrial operations (J.R. Simplot, LOF, and DDJC-Sharpe) within the City operate their own well systems which operate independently of the City supply system. None of these well systems or any other supply wells are located within the project site.

Groundwater quality data was collected at the proposed wastewater expansion site in February 2001 (Nolte 2001). This data is shown in Table 4-4. The total dissolved solids (TDS), nitrate, and specific conductivity values are higher than would be expected for unimpacted groundwater, and it is likely that the groundwater was impacted by historical uses of the area.

TABLE 4-4
SUMMARY OF GROUNDWATER DEPTH AND QUALITY DATA
CROSSROADS COMMERCE CENTER

Parameter	MW-1	MW-2	MW-3	MW-4	Avg.
Well casing elevation, ft	11.91	13.91	13.75	17.40	14.24
GW depth from top of casing, ft	11.58	12.54	12.31	13.45	12.47
Groundwater elevation, ft	0.33	1.37	1.44	3.95	1.77
Approx. depth to groundwater, ft	9.5	10.5	10.5	11.5	10.5
Specific conductivity, mmho/cm	3750	3380	1990	4780	3475
Total Dissolved Solids, mg/L	2540	2450	1310	3840	2535
Nitrate as N, mg/L	0.11	8.89	< 1.0	90.4	25.0

Groundwater quality under the existing evaporation/percolation (E/P) ponds at WRP-1 has been characterized by high TDS and nitrogen. The Siegfried Engineering report (March 2001) states that groundwater below Crossroads Industrial Park was significantly impacted by past activities. Lack of groundwater data prior to the construction of the ponds, unidentified fill material for pond construction, and presence of a salt plume suggest other sources for high TDS. The data also suggest that a number of contaminant sources are impacting the groundwater below the project site.

Due to past industrial and agricultural practices, the beneficial uses of the groundwater immediately below the remediation project site are currently impaired. There are no potable water supply wells within 500 feet of the proposed ponds or storage ponds. The nearest residences are more than 1/4 mile away. Only commercial and industrial developments will be adjacent to the proposed facilities.

Groundwater Depth and Gradient. Depth to groundwater measurements were made in January 2001 at five locations in the vicinity of WRP-1 and the proposed remediation project, including Land Application Sites 1, 2, and 3 associated with the proposed action. The average depth to groundwater was 10.5 feet, with a range of 9.5 to 11.5 feet. Data are shown in Table 4-4. Groundwater elevations indicate that local groundwater flow is from east to west (Nolte 2001).

Monitoring records maintained by the City since the existing wastewater treatment facility began operation in 1994 indicate the separation between the existing expansion/percolation (E/P) pond bottoms and groundwater to be generally eight to twelve feet. An exception was March 1998 when the separation was approximately six feet. Groundwater records from 1983 suggest that seasonally high groundwater may reduce the separation to 2.5 feet. Existing state orders for operation of WRP-1 specify that the separation between the E/P pond bottoms and groundwater be no less than five feet.

Wastewater. The City of Lathrop Water Recycling Plant No. 1 (WRP-1) has been operating at the Crossroads Commerce Center site since late 1994. The existing treatment capacity of WRP-1 is 600,000 gallons per day (gpd) of secondary-treated, denitrified effluent. Plans have been developed to expand treatment capacity up to 1.2 million gpd. The current wastewater flow (July 2000-February 2001) is approximately 80,000 gpd. WRP-1 operates under Regional Board Order (RBO) 94-198, issued by the Central Valley office of the California Regional Water Quality Control Board (RWQCB).

WRP-1 includes three evaporation/percolation (E/P) ponds that had a projected total disposal capacity of 200,000 gpd, but have been found to have lower percolation rates than originally anticipated. The disposal capacity has been reevaluated to a maximum of 100,000 gpd. This existing limitation on disposal capacity is the reason for the proposed remediation project (see Chapter 1.0).

Regional Board Order 94-198 sets wastewater quality limits of 30 milligrams per liter (mg/L) for biochemical oxygen demand (BOD), 30 mg/L for total suspended solids (TSS), and 10 mg/L for total nitrogen (N). The averages of the monthly values for effluent from WRP-1 during the period from January 2000 through February 2001 were 3.0 mg/L for BOD, 9.0 mg/L for TSS, and 3.6 mg/L for N. These values are well below the Regional Board limits. The limit for N was exceeded slightly in January 2001 with a value of 10.3

mg/L. However, the value for February 2001 was 4.4 mg, returning to a level well below the Regional Board limit (Nolte 2001).

Environmental Impacts and Mitigation Measures

The previous EIR identified impacts and mitigation measures for development of the Crossroads project in its entirety and did not address the wastewater treatment plant. However, some of the area-wide impacts and/or mitigation measures described in the previous EIR may be applicable to the overall proposed project and are addressed below. These include consideration of flooding, drainage and ongoing groundwater remediation activities. The proposed action complies with these mitigation measures.

Significance Thresholds. According to CEQA, a project may have a significant effect on the environment if it would involve substantial adverse changes in surface water flow or drainage patterns, or substantial flooding or exposure to flooding, erosion or siltation; violation of adopted water quality standards or waste discharge requirements; substantial degradation of water quality; contamination of a public water supply; substantial degradation or depletion of ground water resources; or substantial interference with ground water recharge.

Flooding Impacts

Due to levee improvements along the San Joaquin River, flooding on the project site resulting from levee failure is not considered a significant risk. A letter of Map Revision for this area was issued by the Federal Emergency Management Agency in February 1990. Installation of an urban storm drainage system within the Crossroads property has reduced the risk of localized flooding. Continued development under the proposed DA amendment, the proposed remediation project and the tertiary treatment project would not be subject to substantial flooding risk. Even if flooding were to occur, none of the facilities associated with the wastewater treatment plant expansion are sensitive to flooding impacts. The proposed alfalfa fields would not be substantially affected by temporary inundation during a flood event. No significant impacts would occur as a result of flooding.

Level of Significance: Less than significant

Mitigation Measures: None required

DA Amendment. Continued development of the Crossroads project pursuant to the proposed DA Amendment would not result in any potential adverse effects on groundwater or groundwater quality. Wastewaters generated from new development would be directed to the City sewer system and ultimately to the treatment and disposal facilities at WRP-1. Potential groundwater effects associated with sewage treatment and disposal are discussed in the following section.

Remediation Project. Because treated wastewater will be applied to agricultural lands and stored in ponds that allow some level of infiltration, the treated wastewater will ultimately mix with groundwater under the project site. Wastewater constituents such as TDS and BOD could adversely affect groundwater quality if high enough concentrations occurred.

WRP-1 is designed to treat a flow of 600,000 gpd. It is expected that effluent quality for the anticipated flows of up to 250,000 gpd will continue to meet or exceed existing permit requirements. Values for TDS, which currently average 1250 mg/L are expected to decline, as additional wastewater flows will consist of domestic sanitary wastewater; anticipated future TDS levels would be on the order of 700 mg/L. Currently wastewater entering the treatment plant is dominated by industrial flows that have a higher TDS.

It was estimated that application of wastewater to the 43.8 acres of forage crops would result in the organic loading of approximately 47 pounds per acre per year of organic material, with a peak month load of 7.3 pounds. The loading rates would be well below accepted limits. All applied organic matter would be broken down within the soil matrix, and no BOD impacts to groundwater would occur (Dixon 2001).

The application of wastewater to the disposal site would result in an estimated annual nitrogen load of 57 pounds per acre year. The typical nitrogen uptake rate for alfalfa is 480 pounds per year. Thus, applied nitrogen will be consumed in the soil and crops and will not degrade groundwater quality (Dixon 2001).

The TDS that would be applied to the disposal site, unlike organic matter and nitrogen, would not be removed by soil and plant processes, and would be flushed to the groundwater. Considering the present wastewater composition, and accounting for the anticipated TDS concentration in the soil, a worst-case estimate for TDS leaving the root zone and entering the groundwater is approximately 2,700 mg/L. This concentration would exceed the existing average groundwater concentration of 2,535 mg/L, and would be approximately twice the 1310 mg/L found at monitoring well MW-3. Over time, applications of treated wastewater with these TDS levels could elevate TDS levels in the

groundwater and adversely affect groundwater quality. This would be considered a significant adverse environmental impact. Mitigation measures include enforcement of the City's existing industrial pre-treatment ordinance that will reduce TDS levels in sewage effluent. Pretreatment would result in wastewater TDS concentrations of 700 mg/L, and reduce estimated worst-case percolate TDS to 1516 mg/L. This level of percolate TDS would compare favorably to the existing groundwater TDS average of 2,535 mg/L.

Design requirements, operating procedures and monitoring requirements for the remediation project will be established in the Regional Board Order allowing discharge of treated wastewater. These measures will address methods required to protect groundwater quality, including requirements needed to avoid increases in groundwater TDS levels to unacceptable levels. The applicant/city commitment to mitigation as set forth in the Report of Waste Discharge is addressed in the mitigation measures below.

Level of Significance: Potentially significant

Mitigation Measures:

1. The City of Lathrop will actively enforce adopted industrial pretreatment standards for dischargers served by WRP-1 in accordance with the requirements of Chapter 51 of the Lathrop Code of Ordinances.

2. A groundwater investigation will be conducted to determine the number and location of monitoring wells required to monitor the impacts of wastewater application to the underlying aquifer. Characterization of existing groundwater conditions in Land Application Site 3, adjacent to Simplot, will be specifically addressed in the investigation to reduce future liability for existing groundwater contamination.

3. The City of Lathrop will install groundwater monitoring wells as detailed by the groundwater investigation identified in mitigation measure 2. Before the required wells are installed, a monitoring well installation work plan will be submitted to the Regional Board for approval. Once wells are installed the following monitoring and reporting schedule be implemented:

Daily:	Wastewater flow
Weekly:	Pond dissolved oxygen concentrations
Monthly:	Chemical monitoring of applied wastewater, including BOD, EC, TDS, FDS, VDS, Cl, NO3, TKN, and pH
Quarterly:	Chemical monitoring of monitoring wells, including BOD, EC, TDS, FDS, VDS, Cl, NO3, TKN, and pH
Yearly:	Standard minerals analyses of supply water and applied wastewater

4. Reports will be submitted to the Regional Board monthly, with quarterly (monitoring well) and annual (standard minerals) data being submitted the month following collection and analysis of samples. At the end of each year, an annual report will be prepared summarizing the results of the land application of wastewater, and calculating the hydraulic, organic, and nutrient load to the disposal area. The impact on groundwater will also be evaluated in the annual report.

5. If monitoring indicates that groundwater is being significantly impacted, the applicant will coordinate with the Regional Board regarding appropriate corrective actions. These may include rapidly infiltrating wastewater to reduce TDS levels or developing additional application sites.

Significance After Mitigation: Less than significant

Implementation: The City and applicant, and wastewater treatment plant operators will be responsible for ensuring these mitigation measures are implemented, in coordination with the Regional Board.

Monitoring: The Regional Board has regulatory authority over design, construction, and operation of the remediation facility and will verify that mitigation measures are implemented. The Regional Board will receive monitoring reports and has authority to take enforcement actions if measures are not properly implemented.

GROUNDWATER DEPTH

DA Amendment. Continuing development of the Crossroads project would not result in changes in existing groundwater depth. Construction of new industrial uses limit groundwater recharge. Wastewaters generated from new industrial development will be directed to the City sewer system and to the treatment and disposal facilities at WRP-1.

Remediation Project. The proposed remediation project has the potential to elevate the groundwater table underlying the wastewater storage ponds as a result of increased percolation of wastewater. Liner design, pond area, and pond depth will affect the seepage rate from the storage ponds and thus control the height of the groundwater mound. Groundwater mounding below the ponds could decrease the pond-groundwater separation to less than the five-foot minimum required by the Regional Board. Not being able to maintain a five-foot separation between groundwater and the storage ponds would be considered a potentially significant adverse environmental impact.

Tertiary Treatment Project. The tertiary treatment project would involve no influence on groundwater volume. All flows through this closed facility would be retained within the treatment/disposal system.

Level of Significance: Potentially Significant

Mitigation Measures:

1. The proposed wastewater storage ponds will be designed to maintain a minimum five-foot groundwater/infiltration pond separation, in accordance with the recommendations detailed in the Siegfried Engineering report (March 2001) and applicable requirements of the Regional Board. These design measures, and others as appropriate, will be implemented as the ponds are planned and constructed.

Significance After Mitigation: Less than significant

Implementation: The project applicant will be responsible for design and construction of the storage ponds in accordance with the above mitigation measures and the requirements of the Regional Board. The Regional Board will be coordinated with during all phases of design and implementation and has authority to take enforcement actions if measures are not properly implemented.

Monitoring: The Regional Board has regulatory authority over design, construction and operation of the facility and will verify that mitigation measures are implemented.

4.9 LAND USE AND PLANNING

ENVIRONMENTAL SETTING

The previous EIR described and reported the then-existing use of the Crossroads site as primarily agricultural. The adjoining industrial user Libby-Owens-Ford (L-O-F) leased approximately 450 acres of the site to a local grower for cultivation of oats, alfalfa and sugar beets. At the time of the previous EIR, the Crossroads area was bordered by a mix of residential and industrial uses. Interstate-5 bordered the western edge of the site with agriculture being the dominant land use west of I-5. Land uses south of the Southern Pacific Railroad (which borders the Crossroads area to the south) were described as a mixture of agriculture, manufacturing and commercial manufacturing. The area north of the site consisted mostly of residential development. Libby-Owens-Ford, Simplot

Chemical, and the E.R. Carpenter Warehouse facility were the three dominant facilities in the area at the time the previous EIR was prepared. The occurrence of prime soils within the project area was noted in the Land Use section; for this supplemental document, however, agricultural issues are addressed separately in Section 4.2 Agriculture.

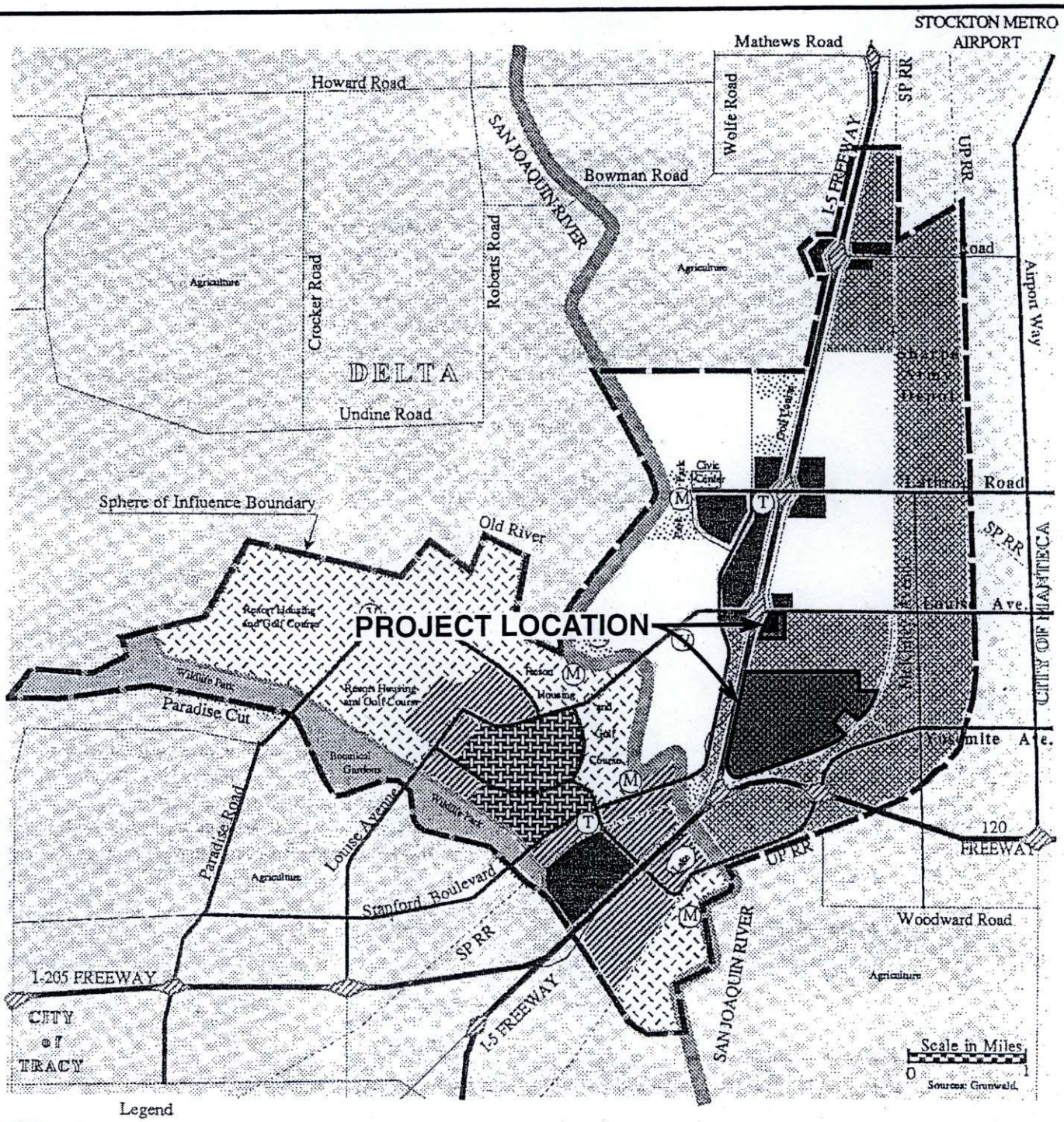
The Crossroads project was included in the City of Lathrop at the time of its incorporation on July 1, 1989. At that time, the City adopted the San Joaquin County land use restrictions that had been applied to the Crossroads project in conjunction with the County's approval of the project and the previous EIR. Most of these regulations are still in effect as the result of the Development Agreement (DA) between the Crossroads developers and the City. CEQA review for the DA was provided by the previous EIR. As approved by the County and adopted by the City, there are currently 450 acres within the Crossroads project which are zoned for general industrial development, 44 acres of highway service commercial and 34 acres of commercial manufacturing for a total of 528 acres (Chapter 1.0, Figure 1-4).

Since its approval, industrial development of the Crossroads project site has proceeded in accordance with approved zoning and General Plan designations. At present, the project site is approximately 41% built out. Undeveloped portions of the site are vacant and are not in active use. There is currently no active agricultural use within the Crossroads project.

Land uses surrounding the Crossroads site are generally as described in the previous EIR. Land uses west of I-5, although still predominantly in agricultural use, are being planned for urban development in conjunction with the City's approved West Lathrop Specific Plan. Commercial development has proceeded to near-completion in the northwestern portion of the Crossroads project as well as on commercially-designated lands located north of Louise Avenue. Lands to the east and south of the Southern Pacific Railroad continue in agricultural and industrial use.

Existing General Plan and zoning designations for the Crossroads area are shown on Figures 4-1 and 4-2. These designations and zoning are consistent with the approved designations and zoning addressed in the previous EIR.

The Initial Study for construction and expansion of WRP-1 states the proposed expansion area is within a developing industrial area of the City of Lathrop with proper general plan and zoning designations for wastewater facilities. The proposed wastewater storage ponds would be located within this area. The proposed land application sites are designated and zoned for general industrial use. Wastewater disposal is an allowable use within these areas.



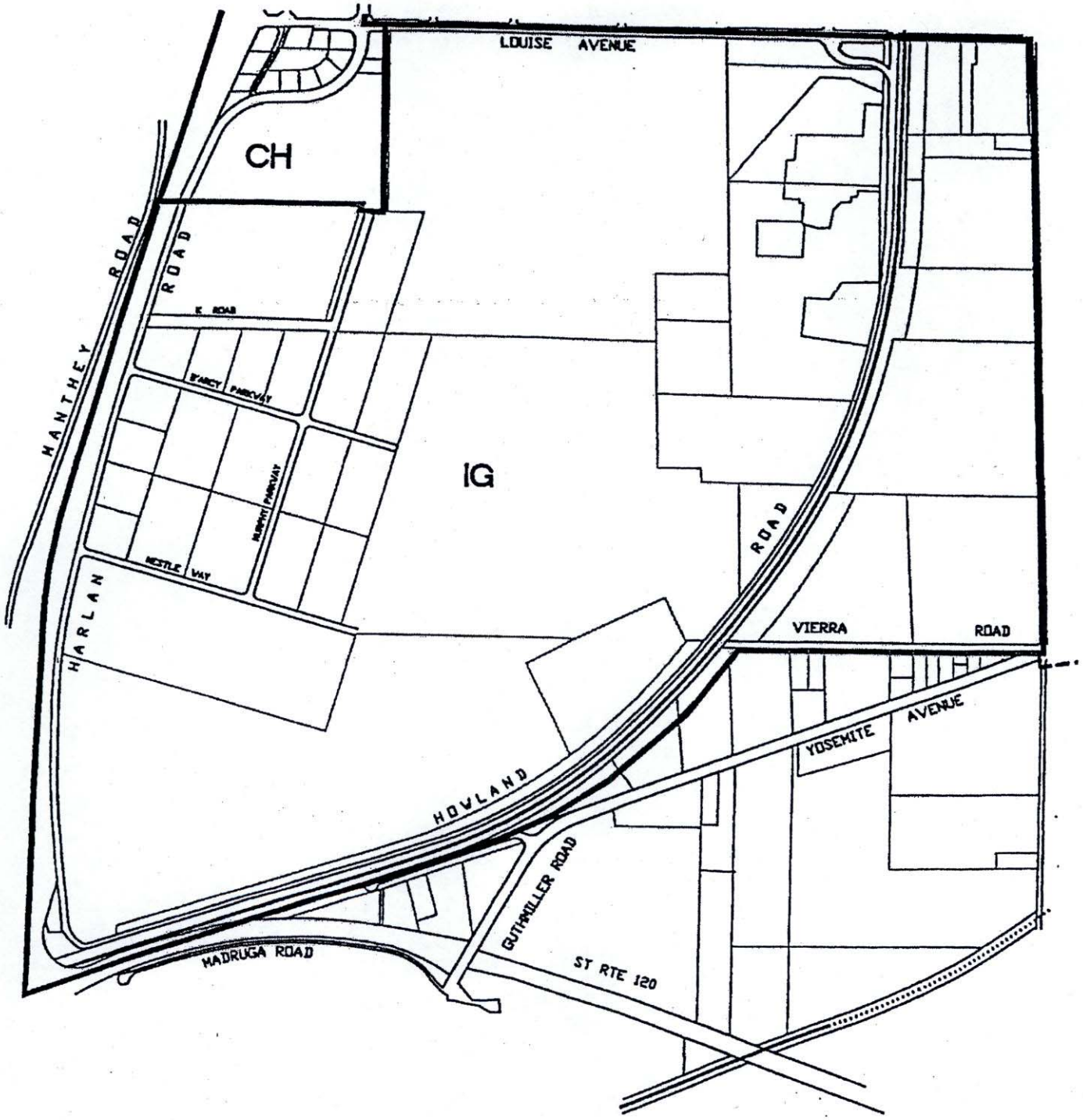
Legend

- Commercial: Stores and Offices
- Industrial and Service Commercial
- Residential Villages
- Community and Open Space
- Theme Park
- Recreation Commercial
- Recreation Residential
- (M) Marinas
- (V) Village Center
- (T) Transit Stations

Source: GRUNWALD & ASSOCIATES

INSITE ENVIRONMENTAL

Figure 4-1
LATHROP GENERAL PLAN MAP



Source: CITY OF LATHROP

INSITE ENVIRONMENTAL

Figure 4-2
ZONING MAP

In the immediate vicinity of the wastewater treatment plant, expansion parcels land uses include the existing wastewater treatment facility, various warehouses, the LOF ponds, vacant lands, and the J.R. Simplot plant. As part of the wastewater storage and disposal project, currently vacant fields would be returned to agricultural production (alfalfa).

Environmental Impacts and Mitigation Measures

The EIR for the Crossroads project identified land use impacts related to losses of agricultural land, consistency with then-existing General Plan designations and policy provisions. These potential impacts were accepted in conjunction with the approval of the project by the City and subsequently by its incorporation into the City. These issues are no longer relevant in the context of the previous EIR. These issues are addressed within the current context in respective sections in this supplemental document. The Initial Study for construction and expansion of WRP-1 identified no impacts or mitigation measures related to land use issues. The document does reference mitigation from the Lathrop General Plan EIR related to conversion of agricultural lands.

Thresholds of Significance. According to the CEQA, a project may have a significant effect on the environment if it would involve substantial alteration of the present or planned land use of an area, disrupt or divide the physical arrangement of an established community, conflict with established recreational, educational, religious or scientific uses of the area, conflict with adopted environmental plans and goals of the community where the project is located, convert prime agricultural land to non-agricultural use, or impair the agricultural productivity of prime agricultural land.

General Plan and Zoning Consistency

DA Amendment. Continued development of the Crossroads project pursuant to the amended DA would involve no substantial conflict with General Plan designations or zoning. The proposed DA Amendment would establish the acceptability of either existing City General Plan designations and zoning, or designations and zoning adopted from San Joaquin County by the City at the time of incorporation. In either case, future development would be consistent with General Plan designations and zoning.

Remediation Project. The proposed remediation project is located on lands designated for public facilities (storage ponds) or industrial development (land application areas). The proposed uses are consistent with existing General Plan designations and zoning.

Tertiary Treatment Project. The proposed facility is located on lands designated and zoned for wastewater treatment facility use. The addition of tertiary treatment facilities would be consistent with existing designations and zoning.

Level of Significance: Less than significant

Mitigation Measures: None required

Land Use Conflicts

Development Agreement. Continued development of the Crossroads project under the amended DA would involve no identifiable potential for land use conflict. The Crossroads site is designated and zoned for industrial development, and prevailing use of developed lands within the area is entirely industrial. Development of remaining vacant lands would necessarily adhere to the requirements of the Lathrop General Plan and Zoning Ordinance. Existing designations and zoning would provide for continuing industrial development that would be consistent with these existing uses.

Continuing development within the Crossroads site would not involve potential for substantial land use conflicts with surrounding lands. Development within Crossroads is buffered from surrounding lands by existing transportation facilities, and industrial development is inherent in the existing General Plan designations and zoning for the site as well as surrounding lands.

Remediation Project. Development of proposed wastewater storage ponds and land application areas would be consistent with existing and planned uses in the vicinity. The proposed storage ponds would be consistent with existing and planned wastewater treatment facilities to the immediate east. Proposed land application areas would involve an essentially agricultural use that would not conflict with existing vacant lands or developed industrial lands which surround the area. Setbacks (33 feet) will be provided between the wastewater application fields and adjacent parcels to prevent potential conflicts as these adjacent lands are developed.

Tertiary Treatment Project. This element of the project would be located with in the existing WRP-1 facility and would involve installation of additional sewage treatment facilities. No potential land use conflict would result.

Level of Significance: Less than significant

Mitigation Measures: None required

4.10 MINERAL RESOURCES

Environmental Setting

Both the Initial Study associated with the previous EIR and the Initial Study for construction and expansion of WRP-1 indicated that there would be no effect on mineral resources from the Crossroads project. Neither the previous EIR nor the IS/MND provided setting information regarding mineral resources.

The Lathrop General Plan indicates that much of the Crossroads area was designated as containing mineral resources. The site was subsequently incorporated and devoted to urban industrial use. On June 16, 1998 a Surface Mining and Reclamation Act (SMARA) ordinance was adopted by the Lathrop City Council. The ordinance is based on the State Mining and Geology Board's (SMGB's) Model SMARA Ordinance. No aspect of the proposed project conflicts with this ordinance.

Environmental Impacts and Mitigation Measures

The previous EIR and the Initial Study for construction and expansion of WRP-1 found that there would be no impact on mineral resources. Consequently, no mitigation measures were provided.

Significance Thresholds. According to CEQA, a project may have a significant effect on the environment if it would involve loss of availability of a known mineral resource classified MRZ-2 by the State Geologist that would be of value to the region and the residents of the state, or result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

Potential Impacts on Mineral Resources

Because the Crossroads area is incorporated and designated for urban industrial use, the significance criteria for this issue area would not be met by any element of the project, including continued development of the Crossroads area pursuant to the amended DA, the remediation project or the tertiary treatment project. No impacts to mineral resources would occur as part of the proposed action.

Level of Significance: Less than significant

Mitigation Measures: None required

4.11 NOISE

Environmental Setting

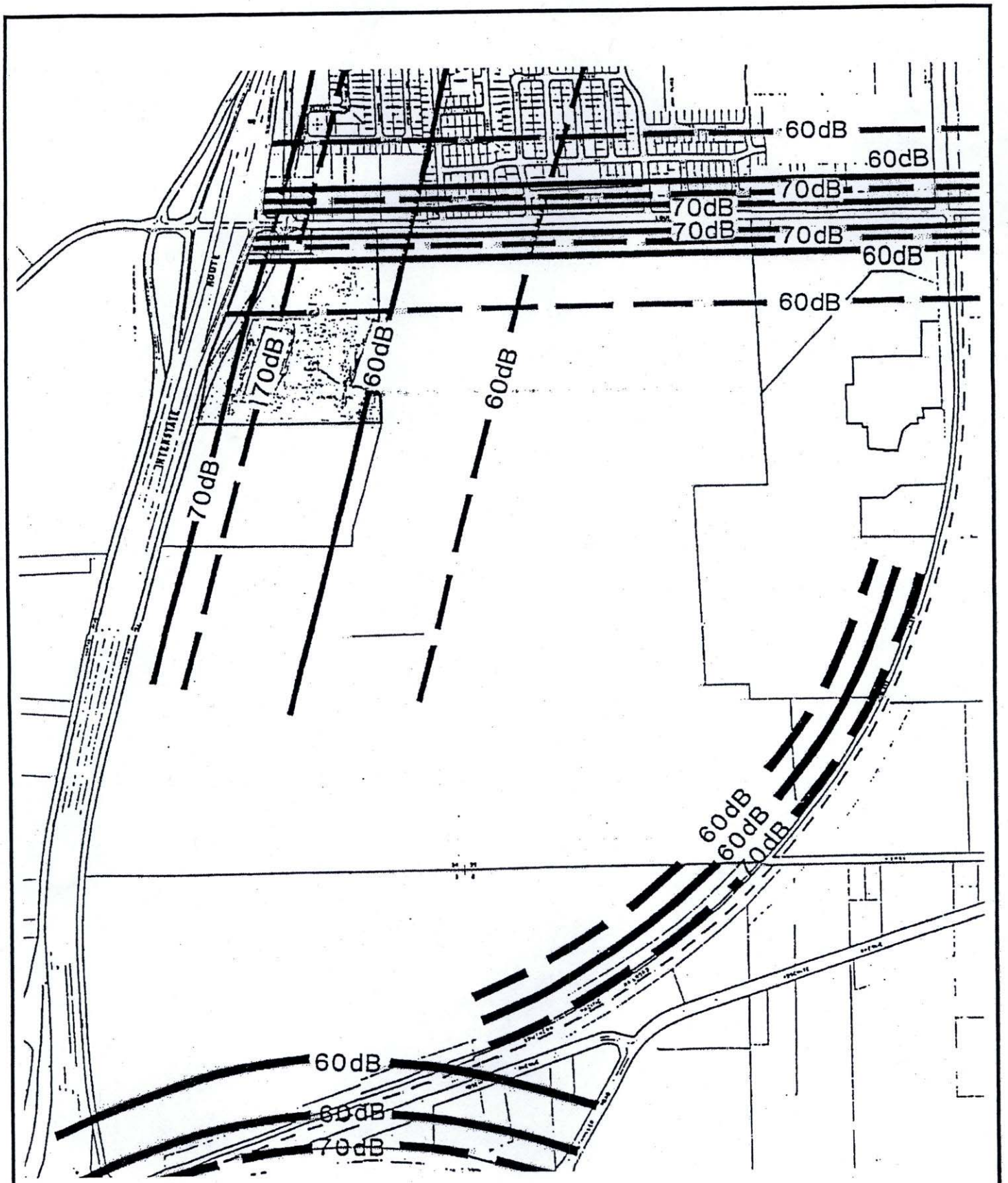
The previous EIR addressed noise conditions for the entire Crossroads project. The EIR states the most significant sources of noise affecting the project area are vehicle traffic on I-5, Louise Avenue, and SR 120. The areas most affected are those portions of the Crossroads project closest to these facilities. The Southern Pacific Railroad also contributes to ambient noise conditions in the project area. Areas impacted by noise and are shown on Figure 4-3.

The noise data generated by the previous EIR were incorporated into the Lathrop General Plan. Ambient noise conditions at the project site do not appear substantially different from those described in the previous EIR. Primary noise generators are highways (e.g. I-5) and main roads. The railroad continues to generate intermittent noise as trains pass the project area. Traffic associated with nearby development generates limited additional noise on surface streets. However, existing industrial uses are largely contained within buildings and do not generate substantial noise. Existing and planned industrial uses in the area are not considered sensitive receptors.

Environmental Impacts and Mitigation Measures

Impacts and mitigation identified in the previous EIR centered on the proposed Highway Service uses area in the northern part of the Crossroads site and are not applicable to the wastewater treatment plant and land application parcels. The EIR does state that projected noise levels resulting from traffic on SR 120 and the railroad are not anticipated to have an impact on the project. Normally acceptable noise levels for industrial land uses can range from 50-75 decibels. Future noise levels in the industrial portion of the Crossroads site, which encompasses the wastewater treatment plant expansion area, will not exceed these standards.

The Initial Study for the construction and expansion of WRP-1 identified no impacts regarding increases in existing noise levels or exposure of people to severe noise levels. It also states that no adverse noise would be generated by the project.



Source: LATHROP GENERAL PLAN

INSITE ENVIRONMENTAL

Figure 4-3
NOISE ENVIRONMENT

Thresholds of Significance. Appendix G of the CEQA Guidelines indicates that a significant effect on the environment may result if the project will result in exposure of persons to or generation of noise levels in excess of adopted standards, or generation of excessive groundborne vibration or groundborne noise levels; or a substantial temporary, periodic or permanent increase in ambient noise levels in the project vicinity.

Exposure to People to Existing Noise Levels

Continued development of the Crossroads site pursuant to the amended DA would be limited to industrial and commercial development. Neither of these uses is sensitive to noise exposure to the levels generated by transportation uses surrounding the site. Approval of the DA Amendment would involve no new, potentially significant noise impacts.

Neither the remediation project nor the tertiary treatment project would involve any substantial exposure of people to significant existing noise levels.

Level of Significance: Less than significant

Mitigation Measures: None required

Increase in Noise Levels Generated by New Development

DA Amendment. Continuing development of the Crossroads project would involve the location of new industrial uses on vacant land within the project area. New industrial uses may include operations that involve noise generation. Past development in the area, however, involved uses that are predominantly contained within structures and do not generate substantial noise off-site. Even if outdoor uses were proposed, the prevailing nature of use within the area is industrial which is not typically sensitive to noise exposure. Continued development of the Crossroads project will involve no significant effect on noise.

Remediation Project. Implementation of the proposed remediation project will generate additional noise through operation of agricultural equipment on the land application sites, operation of pumps to move treated water between the various parcels, and limited increases in traffic associated with facility operations. However, none of these activities would generate significant noise outside the project parcels. Implementation of the proposed action would contribute only minimally to ambient noise levels. In addition, there are no sensitive receptors in, or planned for, the project vicinity. The project itself

is not considered a sensitive receptor and would not be affected by noise generated from surrounding land uses.

Tertiary Treatment Project. The proposed Tertiary Treatment Project would be located within the existing WRP-1 facility. Operation of this facility would not be expected to result in any substantial additional noise, and surrounding lands are or would be devoted entirely to wastewater treatment plant process uses.

Level of Significance: Less than significant

Mitigation Measures: None required

4.12 POPULATION AND HOUSING

ENVIRONMENTAL SETTING

The previous EIR did not address population and housing issues in relation to the Crossroads project, and no setting information was provided on this subject. The Initial Study associated with the EIR identified potential increased demand for housing as a result of project as a potential impact, but provided no mitigation measures or setting information. The Initial Study for construction and expansion of WRP-1 addresses population and housing by noting that the project will support modest growth provided for in the Lathrop General Plan.

According to the US Census Bureau, in 1990 the City of Lathrop had a total population of 6,841 people. Population has increased to 10,600 as of January 1, 2001. There are no housing units within the Crossroads area. The area as a whole can be characterized as a developing industrial area with extensive areas of vacant land. The proposed remediation project would be constructed in an area characterized by vacant land and industrial development. There are no residential structures in the vicinity of the proposed project. The nearest residential community is located over one mile from the remediation project site.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

As stated above, the Initial Study associated with the previous EIR identified increased housing demand from the Crossroads project as a potential impact. However, no mitigation was offered. The Initial Study for construction and expansion of WRP-1

referred to the Lathrop General Plan as the source for mitigation to address anticipated modest growth associated with construction and expansion of WRP-1.

Thresholds of Significance. According to CEQA, the project may have a significant population or housing effect if it would induce substantial growth or concentration of population; displace a large number of people; or displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.

Potential Project Impacts on Population

DA Amendment. Continued development of the Crossroads project with new industrial uses would result in no direct effect on population. Development of the site would involve the creation of no new housing. Expansion of employment opportunities within the City of Lathrop could result in some indirect effect on population growth. However, the Lathrop General Plan provides substantial residential capacity for residential growth within the City for the foreseeable future. Consequently, this aspect of the project would result in no significant effect on population.

Remediation Project. The proposed remediation project would provide needed disposal capacity for a portion of the approved treatment capacity of the WRP-1. The existing treatment/disposal facility is currently constrained from substantial future expansion as the result of the failure of the existing evaporation/percolation ponds system to adequately accommodate design volumes of sewage effluent from the existing facility. The proposed remediation project would provide only about 42% of the disposal capacity needed for full operation of WRP-1.

Provision of the disposal capacity associated with the remediation project would replace disposal capacity expected to be provided by the existing evaporation/percolation pond system. This capacity is needed to support approved development within the Crossroads project but would not result in creation of any additional or new sewage treatment or disposal capacity. Consequently, this proposed improvement would not result in any direct or indirect effect on population growth within the City of Lathrop.

Tertiary Treatment Project. This portion of the proposed project would improve the quality of treated effluent produced by WRP-1. The effect of this proposed improvement would be to permit disposal of treated sewage effluent to a wider range of land, including off-site lands, highway and railroad rights of way and other elements of the City's proposed recycled water system. Addition of tertiary treatment capacity, if required, would not result in the creation of any new sewage treatment capacity not already

approved for WRP-1. As noted above, the existing capacity of WRP-1 is fully allocated to the Crossroads project and would not result in any direct effect on population growth.

Level of Significance: Less than significant

Mitigation Measures: None required

Housing Availability and Demand

New development of the Crossroads project would not result in displacement of any existing or planned housing. Construction of the wastewater storage ponds and alfalfa fields would not displace or otherwise affect any houses. The project would be located in an area zoned for industrial and agricultural uses where no housing is planned. The proposed tertiary treatment project is located within an area already devoted to the City's existing WRP-1. No housing displacement or other impacts on housing would result from this portion of the proposed project.

Level of Significance: Less than significant

Mitigation Measures: None required

4.13 PUBLIC SERVICES

For this analysis, public services include police and fire protection, schools, solid waste disposal, and maintenance of public facilities (including roads). Various utilities that are often considered public services (water, sewer, electricity and natural gas) are addressed in the "Utilities and Service Systems" section of this document.

Environmental Setting

The previous EIR addressed water supply, sewage disposal, fire protection, and police services in the "Services/Facilities" section. However, this information has limited applicability to the current proposed project. Since publication of the previous EIR, many improvements to water, sewer, fire, and police services have been made in the region as the Crossroads project and other portions of the City of Lathrop have developed. Therefore, much of the information in the previous EIR is outdated and under-represents available service capacities. In addition, the previous EIR analyzed

service conditions and demand relative to the entire Crossroads project. There was little to no analysis of individual project features such as the wastewater treatment plant. The Initial Study for the construction and expansion of WRP-1 does not provide setting information relative to public services.

Subsequent to preparation of the Crossroads EIR, the City of Lathrop adopted a comprehensive General Plan and EIR (December, 1991). The General Plan set forth a comprehensive policy and financing plan for the provision of public services to incorporated lands. These were included in Part V Resource Management (Parks and Recreation) and Part VI Hazard Management (police and fire protection services).

Fire service for the City of Lathrop is provided by the Manteca Lathrop Fire District. The District operates three stations: Station #31 on J St.; Station #32 on Union Road; and Station #33 on Austin Road. The Manteca Fire Department also operates three stations nearby which could provide assistance during extreme fire events. The Manteca Lathrop Fire District has a staffing level of 1.16 firefighters per 1,000 population. A common guideline is one firefighter per 1,000 population.

The City of Lathrop contracts with San Joaquin County for municipal police services. Currently 12 officers are assigned to the City, as well as one Chief, Lieutenant, Community Resource Officer and detective. The City maintains a police staffing objective of 1.5 officers per 1,000 population.

Schools serving the City of Lathrop are owned and administered by the Manteca Unified School District. One existing school, Lathrop Elementary, is located in the City of Lathrop, and another, Joe Widmer Elementary School, is under construction. Remaining schools serving the City are located nearby in Manteca. Manteca Unified is currently exploring the development of two additional elementary schools west of I-5.

Solid waste disposal in the City of Lathrop is provided by Sunrise Sanitation Services, Inc. The City uses a three-container collection system, collecting garbage, recycling, and yard waste separately. This system allowed 74% of waste materials to be diverted from landfill disposal in 1998. An estimated 13,244 tons of solid waste generated by the City was buried in landfills in 1998. Four disposal facilities in San Joaquin County were used in 1998: Austin Road Landfill, Foothill Sanitary Landfill, Forward, Inc., and North County Landfill. Waste was also disposed of at two facilities in Alameda County: Altamont Landfill - Resource Recovery and the Vasco Road Sanitary Landfill.

Various city facilities in Lathrop are installed and/or maintained by the Lathrop Public Works Department. This includes streets, street rights-of-way, signage, pavement striping, traffic signals, street lights, bus shelters, the Senior Center, and the wastewater system.

Impacts and mitigation measures identified in the previous EIR centered on fulfilling increased demand for public services associated with development of the entire Crossroads project. Focusing on fire protection and law enforcement services, the previous EIR indicated that buildout of the Crossroads project would result in an approximately 25% increase in the demand on the Manteca-Lathrop Fire Department and the need for a new 0.5 million gallon water storage tank. A significant effect on the San Joaquin County Sheriff's Department was identified requiring the addition of one new full-time position. Mitigation measures were identified for each of these effects, including the assessment of fees to cover the costs of additional fire protection and law enforcement personnel.

With the incorporation of the City of Lathrop in 1989, staffing and financing for fire and law enforcement services were incorporated within the overall service and financing structure of the City. The Lathrop General Plan establishes policies and financing mechanisms for the provisions of these services to the Crossroads project as a whole.

The impacts and mitigation recommendations in the previous EIR (e.g. increase police staffing) are not specifically applicable to the wastewater treatment plant. The Initial Study for the construction and expansion of WRP-1 identified no specific impacts or mitigation measures regarding public services.

Thresholds of Significance. According to CEQA, the project may have a significant population or housing effect if it will result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection, police protection, schools or parks.

PROJECT IMPACTS ON PUBLIC SERVICES

DA Amendment. Continuing development of the approved Crossroads project would contribute to increased demands for fire protection and law enforcement services, as identified in the previous EIR. As development of the area proceeds, these public services would be expanded as required to meet demands, pursuant to existing City policy and financing plans. This element of the project would involve no demand for recreational services, and no substantial change in demand for solid waste disposal services. This

element of the proposed project would involve no new impacts or require additional mitigation measures related to public services.

Remediation Project. Implementation of the remediation project would result in a greater level of activity at WRP-1and on the land application parcels relative to their current unused state. However, the increase would be minimal and easily met using existing law enforcement staff; these demands would be substantially less than any demands associated with the industrial use which has been approved for the site. Neither the proposed land application or storage pond uses would generate a substantial demand for fire protection due to the nature of the land use. Demand for schools, if any, generated from employees operating the facilities would be negligible. Solid waste generation would also be negligible. Although the proposed project will generate some additional vehicle trips to operate the facilities, these will not be sufficient to cause an increased need for maintenance of public roads or other facilities. The expansion of the wastewater treatment facility would not have a significant affect on public services.

Tertiary Treatment Project. The proposed tertiary treatment project would be located within the existing WRP-1 area. This facility, if constructed, would involve relatively minor land area, and operations would be attended by other WRP-1 staff. This element of the project is not expected to result in any impact on public services.

Level of Significance: Less than significant

Mitigation Measures: None required

4.14 RECREATION

Environmental Setting

The Initial Study associated with the previous EIR determined there would be no impacts to existing recreational resources from the Crossroads project. Therefore, the EIR did not address recreational resources, and no setting information was provided. The Initial study for construction and expansion of WRP-1 also determined that there would be no effects on recreational resources from the proposed action, and no setting information was provided on this subject.

Currently there are three parks in the City of Lathrop within five miles of the project site, including Valverde Park (15557 Fifth Street), Woodfield Park (Lathrop Road/Fifth Street intersection), and Libby Mingo Park (between Mingo Way and Libby Lane at Suzie Q

Lane). In West Manteca, Manteca Park Golf Course is located approximately three miles east of the project site on North Union Road.

There is an unauthorized dirt motocross track located on Land Application Site 3; however, no designated parks or recreational facilities are located within the immediate project vicinity. Libby Mingo Park is the closest designated recreational facility, located approximately one mile north of the project site.

Environmental Impacts and Mitigation Measures

The Initial Study associated with the previous EIR found that there would be no effects on existing recreational uses associated with the Crossroads project. The Initial Study did identify a possible need for additional parks to support demand from the Crossroads project, but did not provide any mitigation for the potential impact. The EIR itself did not address recreational resources. The Initial Study for construction and expansion of WRP-1 found that there would be no effect on recreational resources from that proposed action, and no mitigation was required.

Thresholds of Significance. According to CEQA, impacts to recreational resources would be considered significant if they would directly alter or remove important recreational facilities, or prevent access to these facilities or would cause increased use of existing neighborhood or regional parks resulting in physical deterioration of facilities.

Project Effects on Recreational Facilities

DA Amendment. Continued development of the Crossroads project pursuant to the proposed DA Amendment would result in no adverse effect on recreational resources or facilities. This aspect of the project involves industrial development and would not generate new demands for recreation. There are no existing public recreational facilities within the Crossroads area that would be displaced by industrial development. See discussion of unauthorized motorcross track use in the following paragraph.

Remediation Project. The conversion of alfalfa fields on Land Application Site 3 may displace an existing unauthorized motocross track at the north end of the parcel. However, this impacts is considered less than significant because the site is not zoned or permitted for such use, the landowner has not authorized the use, and there are several other potential riding locations in the immediate area. Since there are no other recreational facilities located within the immediate vicinity of the proposed project, no significant impacts to recreational facilities would occur.

Tertiary Treatment Project. The proposed Tertiary Treatment Project would be located within the existing site of WRP-1. This site does not support recreational use and is not planned for recreational use. This element of the project would involve no effect on recreation.

Level of Significance: Less than significant

Mitigation Measures: None required

4.15 TRANSPORTATION/TRAFFIC

ENVIRONMENTAL SETTING

The previous EIR assessed the traffic impacts associated with the development of the Crossroads project as a whole. The primary vehicular access routes described in the EIR included Interstate 5, State Route 120, Louise Avenue, Yosemite Avenue, Vierra Road, Guthmiller Road, Airport Way, McKinley Avenue, Howland Road, 7th Street, Harlan Road, and Manthey Road. No major new roads or highways have been constructed in the project area since completion of the previous EIR. However, several of the roadway and intersection improvements identified as mitigation measures for project impacts described in the EIR have been completed. These include signalization and improvements to the Louise Avenue/ I-5 ramps and improvement of the Louise Avenue/Howland Road intersection. Other improvements, including the improvement of the McKinley Avenue/Vierra Road/Yosemite Avenue intersection, have not been completed. Within the Crossroads project, there have been substantial road improvements as the subdivision project has been built out. These improvements have included the construction of portions of D'Arcy Parkway, Nestle Way and improvements to Harlan and Howland Roads. Additional improvements to these roadways will be made as development of the area continues.

The Initial Study for the construction and expansion of WRP-1 does not provide any specific information on traffic and circulation. The document lists the EIRs for the Lathrop General Plan and the West Lathrop Specific Plan as sources for traffic data and analysis.

The proposed remediation and tertiary treatment project are accessed from the existing local freeway and roadway network. The proposed storage ponds and land application areas are located on the north side of Howland Road generally between Vierra Road and Harlan Road. Direct access to the pond and land application sites is currently provided by Nestle Way and D'Arcy Parkway; a future street, Christopher Way, will connect the

two existing streets and provide immediate access to both the pond and land application sites.

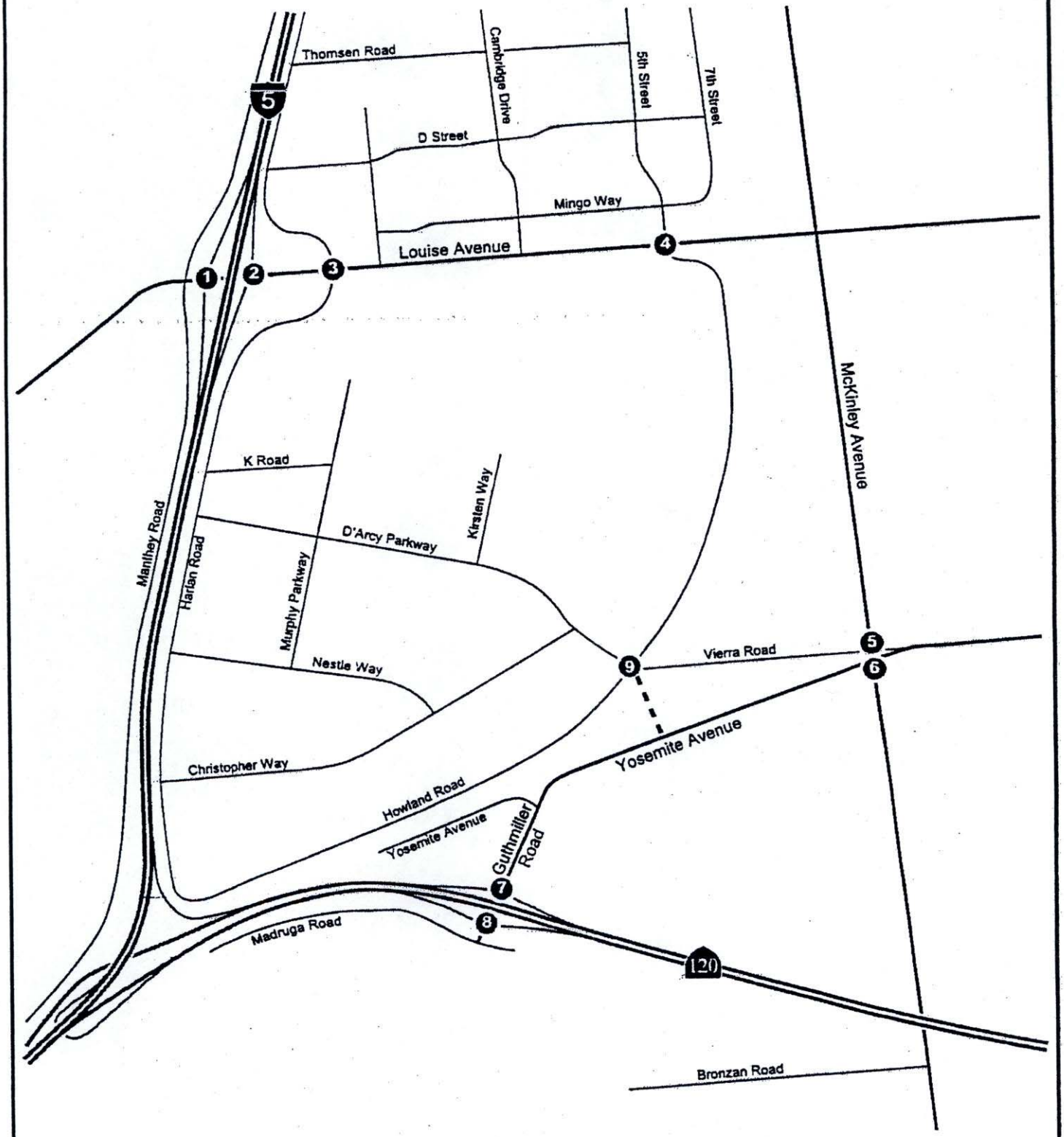
A revised traffic impact study was prepared for the Crossroads project by Fehr and Peers in November 1999 and amended in March 2001. The Fehr and Peers study evaluated existing traffic conditions in the Crossroads vicinity as well as potential future conditions under Existing Plus Project and Cumulative Plus Project Conditions; with-project conditions are discussed in the following section. The purpose of the Fehr and Peers study was to evaluate the applicability of traffic studies included in the previous EIR, specifically with respect to the need for certain mitigation measures, including realignment of Vierra Road to intersect with Yosemite Avenue. Analysis of existing traffic conditions found that all of the study intersections (Figure 4-4.) are operating at Level of Service A or B during both the AM and PM Peak Hours.

Environmental Impacts and Mitigation Measures

The previous EIR identified significant traffic affects on I-5 and at seven intersections as a result of the proposed project, without mitigation. The EIR concluded that the Level of Service (LOS) on surface streets would not drop below LOS C under full buildout of the industrial park, assuming that proposed roadway and intersection mitigations were constructed. As discussed above, some of these roadway and intersection improvements have not been implemented since the previous EIR was approved, including improvement of the McKinley Avenue/Vierra Road/Yosemite Avenue intersection.

Planning, land acquisition and design of this proposed improvement are currently underway by the applicant. This improvement would involve the extension of D'Arcy Parkway across the Southern Pacific Railroad tracks to intersect Yosemite Avenue. The existing Vierra Road crossing of the Southern Pacific Railroad would be abandoned, and Vierra Road would be realigned to intersect the D'Arcy Parkway extension immediately southeast of the railroad. The eastern end of Vierra Road would terminate at a cul-de-sac.

Mitigation identified in the previous EIR consisted of improvements to each intersection (e.g. signalization, widening, turn lanes) and payment of traffic impact mitigation fees to finance public facilities. The City has adopted a fee of $.50 per square foot of industrial development which is collected from new development within Crossroads. Any improvements to I-5 would be performed by Caltrans and were said to be outside the authority of the applicant. Measures to reduce traffic (e.g. transit improvements, encouraging bicycle use) were to be implemented through a Transportation System Management program.



Source: FEHR & PEERS ASSOCIATES

INSITE ENVIRONMENTAL

Figure 4-4
TRAFFIC STUDY INTERSECTIONS

The Initial Study for construction and expansion of WRP-1 referred to the EIRs for the Lathrop General Plan and West Lathrop Specific Plan as sources for impact and mitigation information.

Thresholds of Significance. According to the CEQA Guidelines, a project will ordinarily have a significant effect on the environment if it would cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system or interfere with emergency response plans, or emergency evacuation plans. The CEQA checklist also indicates that transportation impacts may be related to safety hazards caused by transportation system design features, inadequate emergency or other access, insufficient parking, pedestrian or bicycle hazards, conflicts with adopted alternative transportation policies or impacts on rail, waterborne or air traffic.

Project Impacts on Traffic Under Existing Plus Project Conditions

DA Amendment. The potential impacts of continuing development of the Crossroads Project were evaluated in the Fehr and Peers (1999, 2000) study which considered potential future traffic impacts under Existing Plus Project Conditions. This scenario involved consideration of full development of the Crossroads Project, a total of approximately 375 net acres of development.

The Fehr and Peers study found that the previous EIR had substantially over-estimated potential trip generations which would result from the Crossroads Project. As documented in a March 11, 2000 memo that updates the November 1999 report, Fehr and Peers found that trip generation would be approximately half the rate predicted in the previous EIR. For example, per-acre trip generation during the AM Peak Hour would be 2.9 trips per acre as opposed to 6.3 trips identified in the previous EIR. Trip generation during the PM Peak Hour would be 3.5 trips per acre as opposed to the 6.8 trips identified in the previous EIR, and the total daily generation rate would be approximately 22.9 trips per acre as opposed to 59.2 trips identified in the previous EIR.

The 2001 update included detailed examination of truck traffic generation resulting from the Crossroads Project. On a percentage basis, truck trip rates exceeded those predicted in the previous EIR (21 percent during the AM peak hour and 45 percent during the PM peak hour as opposed to 10 percent predicted in the previous EIR for both peak hours). On a daily basis, truck trips would amount to approximately 24 percent of all trip generation as opposed to the 15 percent estimated in the previous EIR. The project is generating approximately 1,910 truck trips per day which is about 53 percent of the total estimated truck traffic (3,600 truck trips) identified in the previous EIR. It is anticipated that future development within the Crossroads Project will result in substantially less truck trip generation than has development to date.

The Fehr and Peers study found that, under Existing Plus Project Conditions, all of the study intersections would operate at LOS A, B or C. This points to substantially reduced potential traffic impacts from those identified in the previous EIR; in that document, approximately 50 percent of the study intersections would operate at LOS D or worse. Under the revised analysis, no mitigation measures would be required under Existing Plus Project conditions.

Remediation Project. The proposed remediation project would not involve any substantial trip generation. This element of the project would delay the realization of trip generation which otherwise be associated with industrial development of the land application sites. This aspect of the project would involve no significant traffic impact.

Construction of the perimeter berms around the wastewater storage ponds and land application areas would require a large volume of fill material. Based on the proposed dimensions for the berms, several million cubic yards of fill material will be needed, requiring several hundred thousand truck trips to transport fill material. It is expected that a majority of the fill used for the pond berms will be obtained from sites within the Crossroads property, and potential impacts would be confined to internal streets. Transportation of fill within the site would not have a significant effect on traffic.

Trucks and personal vehicles would intermittently enter the storage pond areas to inspect or repair the wastewater storage facilities. Vehicles and equipment would also enter and exit the wastewater surface application parcels to cultivate and harvest the alfalfa. However, vehicle trips generated by these activities would be infrequent and in low numbers. Because the wastewater storage and disposal facilities would generate only minimal operational traffic, impacts to the local roadway network would be less than significant.

Tertiary Treatment Project. The proposed tertiary treatment project would involve incidental traffic generation as this facility would be operated in conjunction with WRP-1 and would not involve substantial new employment or associated employee traffic. Construction traffic would also be expected to be incidental and short-lived. This element of the project would not result in any significant traffic impacts.

Level of Significance: Less than significant

Mitigation Measures: None required

As under the Existing Plus Project Scenario, the proposed remediation and tertiary treatment projects would not involve substantial traffic contributions. These elements of the project are not subject to consideration in the following analysis.

The potential impacts of the Crossroads project under Cumulative Plus Project conditions were analyzed by Fehr and Peers for year 2020 conditions. Fehr and Peers analysis found that without the project, cumulative development in and around the City of Lathrop would result in deterioration of traffic operations to LOS E and F conditions at the Louise Avenue/I-5 northbound ramps during the AM and PM peak hours, respectively, and at the Yosemite/McKinley Avenue intersection to LOS F conditions during PM peak hour conditions.

Under Cumulative Plus Project Conditions, the Fehr and Peers (1999, 2000) study found that development of the Crossroads project would result in substantial reductions in cumulative impacts, with fewer intersections impacted, and those which are impacted would be subject to reduced impact. Traffic conditions would worsen to a degree at the two intersections impacted under cumulative conditions without the project. With the proposed project the Louise Avenue/I-5 southbound intersection would also be impacted, reduced to LOS D.

The Fehr and Peers study identifies several mitigation measures that should be implemented to a address potential impacts under Cumulative Plus Project Conditions. These mitigation measures are reflected below.

Construction of the D'Arcy Parkway extension (mitigation measure 4) would be required when industrial development within Crossroads has reached a level of approximately 360 acres. The funding mechanism for these improvements is already in place in the City's traffic mitigation fee for this area.

Level of Significance: Significant

Mitigation Measures:

1. The applicant will be responsible for payment of the proportionate share of the Crossroads project for the following traffic improvements required under Cumulative Plus Project conditions:

2. At the Louise Avenue/Southbound I-5 ramps, widen the I-5 southbound off-ramp to include two left-turn lanes and a shared through/right-turn lane, and

widen the westbound approach to include two left-turn lanes and a through lane.

3. At the Louise Avenue/Northbound I-5 ramps, widen the I-5 northbound off-ramp to include a shared left-turn/through/right-turn lane and a right-turn lane, the westbound approach to include a through a shared through/right-turn lane.

4. At the Vierra Road/McKinley Avenue and Yosemite Avenue/McKinley Avenue intersections, close Vierra Road to form a cul-de-sac at McKinley Avenue, and extend D'Arcy Parkway across the Southern Pacific railroad tracks to a new signalized T-intersection at Yosemite Avenue with one left-turn lane and one through lane in eastbound Yosemite Avenue; one through lane and one right-turn lane on westbound Yosemite Avenue; and one left-turn lane and one right-turn lane on southbound D'Arcy Parkway.

Implementation: The applicant will be responsible for entering into the Development Agreement and for payment of proportionate share costs of improvements.

Monitoring: The Department of Community Development will be responsible for ensuring that proportionate share payments are made in conjunction with applications for new construction.

4.16 UTILITIES AND SERVICE SYSTEMS

ENVIRONMENTAL SETTING

For this analysis, utilities include water supply, sewage, storm drainage electricity, and natural gas. Electrical and natural gas services were not analyzed in the previous EIR. The previous document did analyze water supply and sewage disposal in the "Services/Facilities" section. Since publication of the previous EIR, many improvements have been made to Lathrop's water and sewer systems as the Crossroads project and the City have developed. Therefore, much of the information in the document is outdated and under-represents available utility service capacities. Updated information on the City's existing and planned utility systems is provided below.

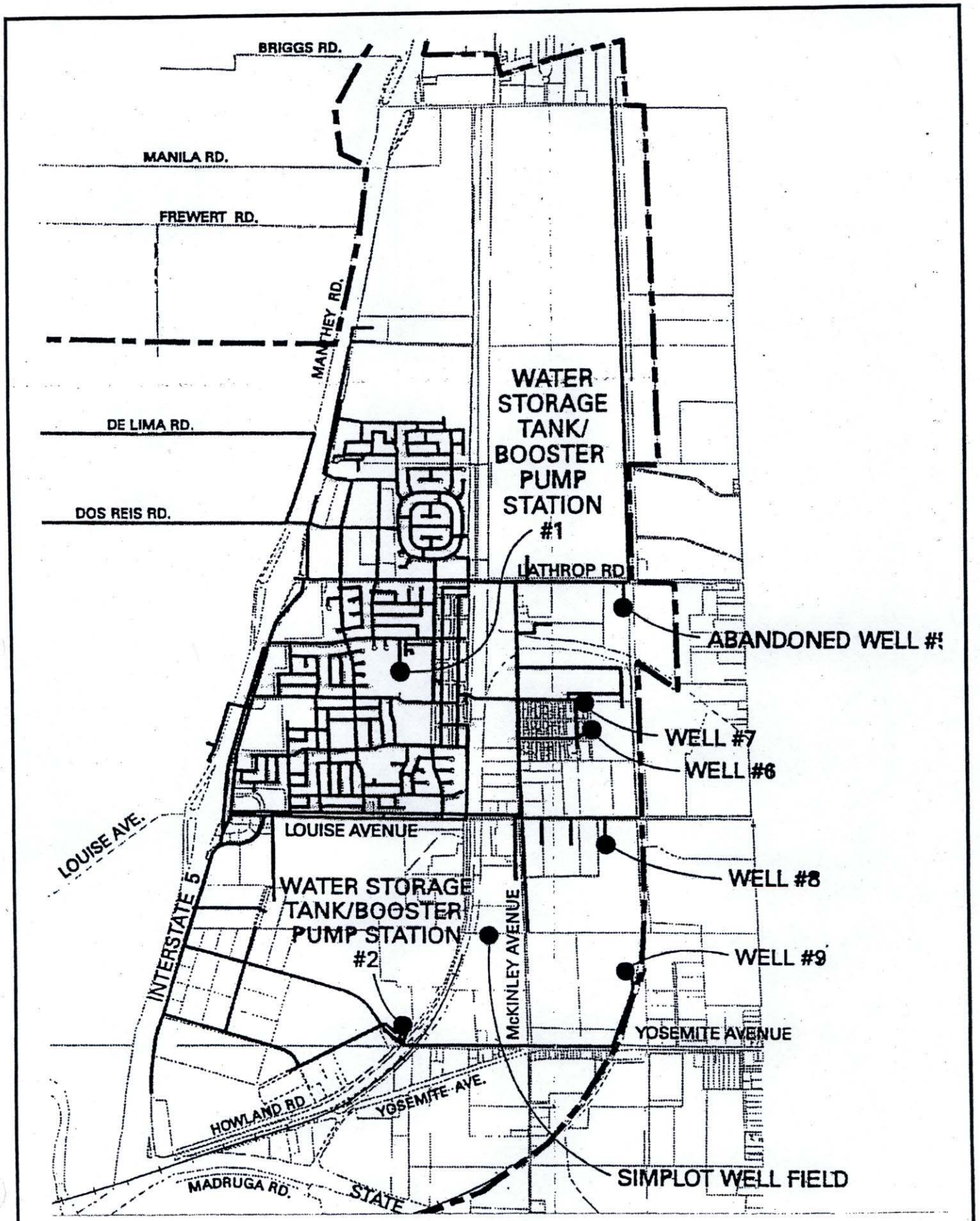
The previous EIR analyzed service conditions and demand relative to the entire Crossroads project. There was little to no analysis of individual project features such as the wastewater treatment plant. The Initial Study for the construction and expansion of WRP-1 does not provide setting information relative to utilities and service systems.

Water System. Domestic water supply for the City of Lathrop is currently provided by a system of four groundwater wells (Wells 6-9) located east of the Crossroads area that provide good quality water at rates ranging from 1,100 to 1,400 gallons per minute. The City wells draw from an aquifer located below the Corcoran Clay layer. Water demand in 1997 was estimated at approximately 1.8 million gallons per day (MGD). Demand is expected to grow to approximately 5.6 MGD by 2004 and 33.7 MGD by 2020 as the City expands in accordance with the Lathrop General Plan (Nolte 2001); future growth areas are primarily located west of I-5. Future water demands will be met with a combination of groundwater and surface water supply obtained from the South San Joaquin Irrigation District (SSJID), including the development of three new wells by 2004.

The City of Lathrop is a partner in the SSJID South County Water Supply Project, together with the SSJID and the cities of Escalon, Manteca, and Tracy. The project involves the diversion of conserved surface waters from existing SSJID supplies stored in Woodward Reservoir to a new water treatment plant and then via pipeline to the south county cities. The City's goal is to ultimately obtain a majority of its water from the Woodward Reservoir treatment plant and to reduce dependence on well water. Approximately 14.6 MGD is expected to be available to the City by 2004 and 21.1 MGD by 2020. The City is currently working on financing for the initial phase of this project.

The Crossroads area is served with municipal water service from an existing system of mains, storage and a booster pump station shown schematically on Figure 4-5. These improvements reflect the original Water System Master Plan for the Crossroads project; the Crossroads water master plan was subsequently incorporated into the City's Master Plan. The existing storage tank and booster pump station are located at the future crossing of D'Arcy Parkway and the Southern Pacific Railroad. Existing facilities within the Crossroads project will be extended in conjunction with construction of remaining public streets as buildout of the area continues.

City water facilities will be subject to major expansion as planned development of the City proceeds. Plans for future water system expansion are contained in the City's proposed Water, Wastewater and Recycled Water Master Plan (Nolte 2001). In 1999, a new 1.0 million gallon water tank and booster pump station was installed to serve the northern Lathrop area.



Source: EDAW 2001

INSITE ENVIRONMENTAL

Figure 4-5
CITY OF LATHROP WATER SYSTEM

The Crossroads area is also served by an irrigation system operated by the California Irrigation District (CID). The CID system consists of an irrigation well and tank located near the Crossroads storm drainage pump station and detention basin, in the southwestern corner of the project area, and a series of six-inch PVC mains located along existing streets. This system will be extended along future streets within Crossroads as buildout of the area continues.

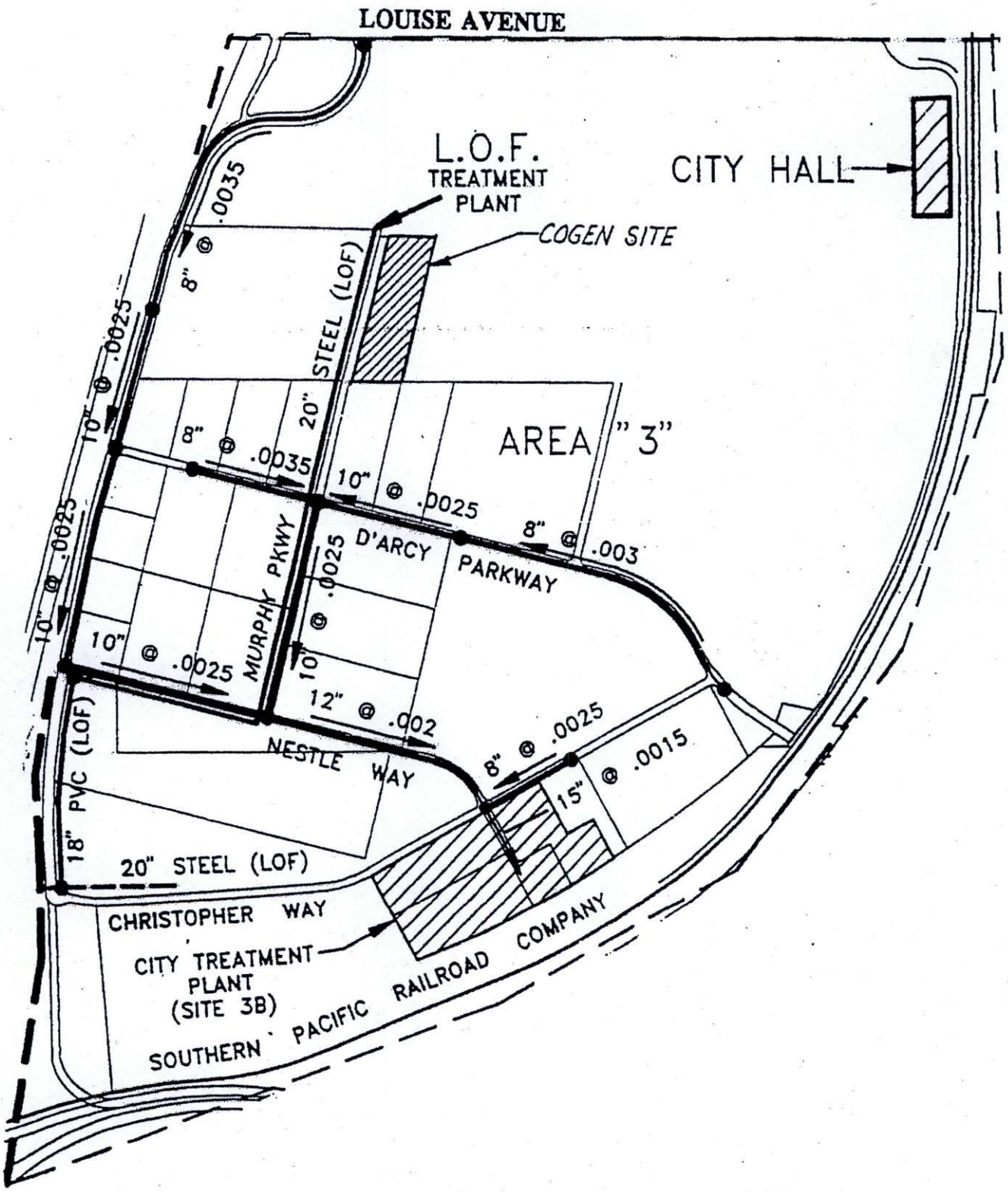
Industrial uses on non-Crossroads lands in the vicinity are served by well systems. These include two wells serving the J. R. Simplot facility and three serving Libbey-Owens-Ford. Selected wells within these two systems are interconnected for backup purposes. Additional wells located within the Sharpe Army Depot facility are interconnected with the City well system for backup.

Sewage System. Sewage service within the City of Lathrop is provided through its Utilities Division. Sewage treatment and disposal for most of the sewage generated from incorporated areas east of I-5 is provided at the City of Manteca Wastewater Quality Control Facility; the City has an allocation of 1.02 MGD at this facility. Remaining wastewater generated within the City, including sewage generated from the Crossroads project, is treated at the City's existing Water Recycling Plant 1 (WRP-1) located within the Crossroads project (Figure 4-6).

WRP-1 provides secondary treatment and has a design treatment capacity of 600,000 gallons per day. The existing disposal system has not performed in accordance with expectations and limits the effective capacity of the plant to about 100,000 gallons per day. The purpose of the proposed remediation project is to provide additional disposal capacity (a total of 250,000 gallons per day, about 40% of the plant's capacity) for this existing facility. Additional discussion of the existing treatment plant, and the existing and proposed disposal systems, is provided in Chapters 1.0 Introduction and 3.0 Project Description of this document.

Sewage collection within the Crossroads project is provided by a system of gravity mains located within existing and future street rights-of-way, including Harlan Road, Nestle Way and D'Arcy Parkway. These lines flow generally from north to south to WRP-1. This system will be extended to serve any presently unserved portions of Crossroads as buildout of the project continues.

Storm Drainage. The Crossroads is served with urban storm drainage by a system consisting of catch basins and 24-inch to 84-inch storm drains installed within existing streets. These facilities drain by gravity to an existing storm drainage detention basin located at the southeast corner of Harlan Road and (future) Christopher Way. Detained storm drainage is pumped to the San Joaquin River. The storm drain system will be extended to unserved portions of the project area as buildout of the project continues.



Source: INSITE ENVIRONMENTAL

INSITE ENVIRONMENTAL

Figure 4-6
CROSSROADS AREA SEWER SYSTEM

Other Utilities. Electrical and natural gas service to Lathrop is provided by PG&E. This includes electrical service to WRP-1. PG&E owns and maintains the electrical and natural gas distribution systems within the City. These systems are located primarily within the existing street system.

Environmental Impacts and Mitigation Measures

The previous EIR considered water, sewer and storm drainage issues to varying degrees. Water-related issues included concerns with groundwater withdrawal volumes, abandonment of irrigation wells and potential adverse effects on groundwater quality. The EIR considered sewage generation by the Crossroads industrial development but addressed this issue in light of proposed treatment at the City of Manteca wastewater facility; this proposal was later superseded by the decision to construct WRP-1. Consideration of storm drainage issues was limited to flooding and poor drainage within the project area. Mitigation measures identified in the previous EIR included, for water-related impacts, water conservation, groundwater monitoring and participation in the funding of the service water system for the project to the City of Manteca treatment system. Storm drainage mitigation measures included participation in funding of levee improvements and installation of a storm drainage collection, detention and terminal drainage system within the project.

The City of Lathrop was subsequently incorporated, and it then engaged in a utility planning, financing and construction process which is currently ongoing. While this Supplemental EIR is being considered, the City will likely adopt a new Water, Wastewater and Recycled Water Master Plan. This Master Plan will address the City's participation in a surface water supply system currently being planned to service four south-San Joaquin County cities, including Lathrop. In addition the plan will provide for tertiary treatment and reclamation of all wastewaters generated by new development in the City, fulfilling the previous EIR's conservation proposals.

The new Master Plan also provides for expansion of the existing WRP-1 located within Crossroads to provide not only capacity for the Crossroads project but also capacity for other developing areas of the City of Lathrop. The City's proposed Phase 1A/1B project provides for expansion of WRP-1 to 1.2 and 3.0 million gallons per day of capacity. Storm drainage mitigation measures identified in the previous EIR have principally been implemented with the construction of the existing storm drainage collection and detention system as well as by improvement of the RD 17 levees in conjunction with the Weston Ranch project.

The recommendations in the previous document are not specifically applicable to the wastewater treatment plant expansion. Development of WRP-1 was, in fact, a response

to the need for additional wastewater treatment capacity identified in the previous EIR that could not ultimately be fulfilled at the Manteca facility.

The Initial Study for the construction and expansion of WRP-1 states that all needed utility and service systems necessary to support the plant were available, and no impacts or mitigation related to utilities were provided.

Thresholds of Significance. According to the CEQA Guidelines, a project may have a significant effect on the environment if it would 1) exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board, 2) require or result in the construction or expansion of water, wastewater or storm drainage facilities that could cause significant environmental effects, 3) require the development of new water supplies available to serve the project, 4) not comply with federal, state, and local statutes and regulations related to solid waste, or 5) not be served by a landfill with sufficient capacity to accommodate the project's solid waste disposal needs.

Impacts on Potable and Irrigation Water Systems

Continuing development of the Crossroads project pursuant to the proposed DA Amendment would result in additional potable and irrigation water demands. These demands would be met from existing and programmed water supplies as provided in adopted and proposed Utility Master Plans for the City of Lathrop. Existing potable and irrigation water lines would be extended to the remainder of the Crossroads area in conjunction with buildout and associated street development.

The proposed remediation project would not involve an increase in demand for potable or irrigation water as agricultural production needs would be met with treated wastewater from WRP-1. Installation of reclaimed water pipeline involves the potential for disturbance of other existing or proposed utilities during construction. This would, however, be addressed and reduced to a level of significance through the engineering process, and through contact with Underground Service Alert (USA).

The proposed tertiary treatment project would involve no substantial effect on either potable or irrigation water systems.

Level of Significance: Less than significant

Mitigation Measures: None required

Impacts on Sewer System

Continuing development of the Crossroads project pursuant to the amended DA would involve increases in sewage generation and demand for sewage collection and treatment. Sewage collection needs would be met through the extension of existing sewer lines in conjunction with new industrial development and associated street improvements, in accordance with the adopted sewer master plan for the Crossroads area. Issues related to sewage treatment and disposal are addressed in the following section.

The proposed remediation project would involve the installation of reclaimed water pipelines within proposed street systems. Potential conflicts with existing or proposed utilities would be addressed through the engineering process and USA contact.

The proposed tertiary treatment project would involve no impact on the sewage collection system.

Level of Significance: Less than significant

Mitigation Measures: None required

Project Impacts on Sewage Treatment and Disposal System

Continuing development of the Crossroads project pursuant to the DA Amendment would involve increases in demand for sewage treatment and disposal; however, these demands would be consistent with the original project approval as well as demand assumptions of the City's existing and proposed utility master plans. WRP-1 provides sufficient secondary treatment capacity to accommodate potential development in the Crossroads project. However, sewage disposal capacity of the plant is currently limited to approximately 100,000 gallons per day.

The proposed remediation project would provide a total of 250,000 gallons per day of disposal capacity, approximately 40% of the treatment capacity of WRP-1 but only a portion of the capacity required for buildout of the Crossroads project. Addition of the sewage disposal capacity inherent in the project would constitute a beneficial impact. However, available capacity with the remediation project would not be sufficient to accommodate the entire Crossroads project.

The City's proposed Phase 1A/1B project would increase the capacity of WRP-1 to 1.2 and ultimately 3.0 million gallons per day. This project, however, will involve provision of disposal areas for only a portion of the capacity needed for buildout of Crossroads.

The proposed project would involve contributions to potential environmental effects identified in conjunction with the adoption of the Lathrop General Plan and EIR. In conjunction with other development permitted by the General Plan, the project would have potential impacts which are cumulatively considerable. These potential impacts have been considered and accepted by the City of Lathrop in conjunction with its adoption of the General Plan. These would include potential impacts on biological resources, air resources, traffic and other environmental resources.

The proposed project would not involve environmental effects which would cause substantial adverse effects on human beings, either directly or indirectly. The potentially significant environmental effects of the proposed project would be reduced to a less than significant level by proposed mitigation measures.

5.0 GROWTH-INDUCING IMPACTS

The CEQA Guidelines require that an EIR discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Projects that could induce growth include those that involve development in undeveloped areas, that extend new infrastructure or remove physical or economic obstacles to population growth, or that encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. The Guidelines note that it must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.

Growth can be induced in a variety of ways, for example by development that creates demands for other types of development. For example, a new industrial facility that creates a large number of jobs may accelerate demands for housing. In an area of relative housing shortage, this effect could be growth-inducing. The same project in a labor surplus area may have no growth-inducing effect. Development of amenities may also spur development of other land uses nearby.

Growth can also be induced by removing obstacles to development or by providing facilities to serve development. Extension of new sewer and potable water systems to unserved areas can stimulate development. If these facilities are extended in conjunction with other planned development, however, they may not have a distinguishable growth-inducing effect. Growth may also be induced by government action to permit development through the amendment of a general plan or zoning ordinance.

The previous EIR included a detailed analysis of the potential growth-inducing impacts of the Crossroads project. The growth-inducing impacts identified included induced new demand for housing, extension of infrastructure and secondary impacts of development on housing and municipal services. The previous EIR indicated that the Crossroads project would generate between 3,700 and 4,400 new employees that would, in turn, result in the demand for between 2,900 and 3,450 dwelling units. Based on the then-existing high unemployment for the area and the anticipated number of employees that would commute to the Crossroads site from other areas, the previous EIR estimated that the housing impact of the project would amount to approximately 375 dwelling units. The EIR indicated that housing development would result in secondary impacts on police, fire, schools, and other public services.

The previous EIR was certified prior to the adoption of the Lathrop General Plan. The General Plan set forth a comprehensive plan for development for the City as a whole,

including and considering potential employment which would be generated by the Crossroads project. The Lathrop General Plan accounted for anticipated population growth over a 20-year period of approximately 23,000 people; this increase would be accommodated in approximately 10,700 new housing units to be developed within the City of Lathrop. Housing growth anticipated in the General Plan would more than accommodate the secondary demand for housing which could be generated by the Crossroads project. Incorporation of these needs into the General Plan, and the City's provision for serving these new housing units with infrastructure and urban services, supercedes the potential impact identified in the previous EIR.

The EIR included in the Lathrop General Plan also addressed the potential environmental effects of industrial, housing and other growth associated with implementation of the plan. These potential impacts were either mitigated through policies and implementation measures or accepted by the Lathrop City Council in conjunction of adoption of the Plan. Potential environmental effects considered in the General Plan EIR included the secondary effects of housing development on fire, police, schools, and other public services.

The previous EIR also addressed the potential growth-inducing effects of utility extensions associated with the development of the Crossroads project. These potential effects have been realized with the development of the Crossroads project and the extension of water, sewer, storm drainage and other utility lines into the area. A subsequent Mitigated Negative Declaration addressed the potential effects of construction of WRP-1 to a treatment and disposal capacity of 600,000 gallons per day. This approved capacity is considered adequate to serve the needs of the Crossroads projects through its buildout.

The potential growth-inducing impacts of the individual elements of the current proposed project are addressed below.

DA Amendment. Approval of the proposed DA Amendment would involve no new land use entitlement, new extension of utilities or other potential influence on growth inducement. Approval of the DA Amendment will permit the continuing buildout of the Crossroads project and associated infrastructure consistent with the 1989 approval of the project by the City of Lathrop. As such, the DA Amendment will contribute to the growth-inducing impacts identified in the previous EIR; however, this element of the project would involve no new growth-inducing impacts.

Remediation Project. The proposed remediation project will provide a replacement wastewater disposal system for a portion of the 600,000 gallon per day capacity of WRP-1. This disposal capacity would be considered sufficient to support some additional near-term development of the Crossroads project but would not provide any new sewage treatment/disposal capacity. This element of the project would not involve potential to induce growth outside the Crossroads project. Dedication of the 44-acre land

application areas to sewage disposal will temporarily limit the overall potential of the Crossroads project for industrial development.

Tertiary Treatment Project. This element of the project would involve installation of up to 600,000 gallons per day of tertiary treatment capacity at the existing, approved treatment plant. This portion of the project would not create new sewage treatment capacity but would help realize the existing, approved design capacity of the plant. Addition of tertiary treatment will permit the applicant and City to pursue sites for land disposal both within and outside the Crossroads project as a result of the improved quality of wastewaters. However, this element of the project would involve no growth-inducing effect.

project. The discussion, however, recognized that the site was designated for urban development in the San Joaquin County General Plan and would likely be subject to urban development. The "Project in Conformance With General Plan" alternative would have involved development of the Crossroads site with only industrial uses rather than the approved mix of commercial and industrial uses. Potential impacts were identified as similar between the alternative and the proposed project. The "Modified Project" assumed that industrial development of the site would be limited by restrictive General Plan designations and zoning. This alternative would have resulted in incremental reductions in the potential environmental impacts of the project. The previous EIR evaluated an "Alternative Site" for proposed highway service commercial development. This alternative would have involved generally similar and in some cases greater impacts then the proposed project.

Ultimately, the proposed project was approved by the City, and the alternatives were each found by the City to be either infeasible or less desirable than Crossroads in conjunction with approval of that project. As defined in the previous EIR, these alternatives were all rendered moot with the City's approval of the Crossroads project and are not addressed further in this document.

A range of reasonable alternatives to the current proposed project was identified. Alternatives to the current proposed project would include 1) No Project, 2) Alternative Uses and 3) Alternative Locations.

6.1 NO PROJECT

The No Project alternative is defined as City denial of the proposed project and the continuation of existing conditions and trends in the project area. This alternative would involve no action on the part of the applicant or the City of Lathrop. Under this alternative, the proposed DA Amendment would not be approved, and the review and approval of new industrial development within the Crossroads project would be conducted under existing General Plan and zoning requirements for the City as a whole. The proposed remediation project would not be approved, limiting availability of sewage treatment and disposal for the Crossroads project to the existing disposal capacity of approximately 100,000 gallons per day until completion of the city's proposed Phase 1A/1B project (Chapter 1.0). Disapproval of the tertiary treatment project would limit the options for sewage disposal generated by WRP-1 until completion of the City's Phase 1A/1B project in 2002.

The No Project alternative would temporarily avoid changes to geology, soils, water resources, biology, or cultural resources associated with continued buildout of the Crossroads project and proposed sewage treatment improvements. This alternative

would temporarily avoid any increases in employment, demands for public services and utilities and increased traffic, air pollution, and noise impacts.

Continued industrial development of the Crossroads project could, however, continue under existing city-wide General Plan designations and zoning that would come into effect if the existing development agreement were permitted to expire. Development activity would be limited in the immediate short-term by the lack of sewage disposal capacity. On completion of the city's proposed 1A/1B project for WRP-1, or provision of another alternative disposal system in the interim, industrial development of the Crossroads project could continue unimpeded.

Development under City-wide General Plan designations and zoning would involve generally comparable levels of development and potential for environmental impact as the proposed project. However, the absence of a development agreement would greatly limit the abilities of both the applicant and City to function productively in the buildout of the area. As the applicant and City are financially interdependent in several areas with respect to the Crossroads project, disapproval of the proposed DA Amendment would in all likelihood be followed by a revised DA proposal.

Disapproval of the remediation project and/or the tertiary treatment project would limit available sewage treatment/disposal capacity at WRP-1 to approximately 100,000 gallons per day, the current disposal capacity of this system. This alternative would prohibit any substantial additional development within the Crossroads area to that which could be accommodated by the remaining disposal capacity of the plant. Other development of the site would dependent upon the City's completion of its Phase 1A/1B project, or the completion of an alternative disposal system. Disapproval of the tertiary treatment project would severely limit the options for any interim disposal solution.

The improvement of wastewater quality at tertiary levels would provide numerous options for identification and development of disposal areas.

This alternative does not fulfill the objectives of the project and would only result in delay of significant environmental effects that have already been mitigated or accepted in conjunction with prior project approvals. The potentially significant environmental effects of the current proposed project can be reduced to less than significant with the proposed mitigation measures.

6.2 ALTERNATIVE USES

This alternative would involve approval of alternative land uses for all or portions of the project site.

One option for alternative uses would be to replace existing, approved industrial land use designations and zoning with alternative designations and zoning, e.g. commercial and/or residential uses. A range of alternative industrial uses for the project area was addressed in the previous EIR and rejected with the approval of the proposed project. The alternative industrial uses would have involved generally comparable environmental effects to the approved project.

Application of alternative uses to the project site is not considered a feasible alternative. With the original approval of the Crossroads project, the project site was converted from agricultural to industrial use and has been in the process of buildout for more than 10 years. Options for commercial use were evaluated in the planning of the original project and expressed in the proposed re-designation and zoning of portions of the project site. With the prevailing industrial use in the area, no need for additional commercial or residential use has been identified or would be considered desirable. Development of a non-industrial use would require a new General Plan amendment and re-zoning of the site which is not consistent with the project objectives.

Development of commercial uses would involve generally equal or greater impacts than industrial use, including the potential for substantially greater traffic generation and associated air quality, noise and other impacts. Development of residential uses would involve substantial potential for land use conflict between existing, prevailing industrial use and new residential uses.

The proposed remediation project is an interim open-space use that is intended to be replaced at a later date by industrial development in accordance with existing General Plan and zoning designations. The proposed remediation project would not compromise the suitability or availability of the proposed sites for future industrial use.

The proposed tertiary treatment project would be located within the boundaries of WRP-1, a site that has been dedicated for municipal wastewater treatment uses. The proposed tertiary treatment project would be consistent with these uses.

This alternative does not fulfill the objectives of the project and could result in increased potential for significant environmental effects compared to the proposed project. These potential impacts would not likely be avoidable with mitigation measures.

6.3 ALTERNATIVE LOCATIONS

The CEQA Guidelines (15126(d)) require that an EIR consider "alternatives to the project, or to the location of the project." The analysis of alternative locations should

address feasible sites which could avoid or substantially lessen significant effects. Reasons for elimination of sites on the basis of infeasibility must be documented. Alternatives whose effects cannot be reasonably ascertained, and whose implementation is remote and speculative, need not be addressed. As with all potential alternatives, project location alternatives must be feasible and able to meet the basic objectives of the project. Potential location for the various elements of the project are discussed below.

Alternative locations for the Crossroads project as a whole were considered in the previous EIR, and due to the prior industrial designations and zoning of the project site, this discussion was limited only to alternative locations for the then-proposed commercial uses. Initial impacts associated with alternative sites were said to be higher than with the proposed project.

There is no alternative location for the proposed DA Amendment. The Crossroads project has been approved and under development for more then 10 years and is predominantly built out. Selection of an alternative site would disperse anticipated economic development within Crossroads to other undeveloped lands. This could lead to both additional environmental impacts on the undeveloped lands as well as under-utilization of the approved site. This latter effect would likely, however, be temporary as the site would remain designated for industrial development. This alternative would not, however, result in any potential reduction in environmental impact from those associated with the proposed project.

The proposed remediation project would be located on lands that have been approved and prepared for industrial development. As development within the City of Lathrop and San Joaquin County proceeds, this land would ultimately be subject to disturbance by industrial uses. The proposed remediation project involves an interim use of these lands. Relocation of the proposed remediation project to another site within Crossroads would result in equivalent or greater potential environmental impact. No significant impacts that cannot be mitigated have been identified in conjunction with this element of the project. Relocation of the proposed remediation project to a site outside of the Crossroads project would involve conversion of raw land, likely in agricultural use, to the proposed wastewater disposal function. This alternative would involve some potential for adverse impacts on agricultural land as the proposed remediation project involves earth moving for a pond construction and containment levees. This alternative may also involve potential for conflict with existing County policies that discourage use of unincorporated lands for municipal sewage disposal. This alternative would not involve potential for reduction of environmental impact.

Other lands may exist outside and near the Crossroads project that are already in use for industrial wastewater disposal. These lands have the potential to accept treated wastewater generated at WRP-1. The applicant and City, as well as applicants for other land development within the City, are exploring these options in conjunction with

planning for the WRP-1 wastewater treatment and disposal project as a whole. These lands are not currently available to the City or the Crossroads project, and discussion with land owners are at a very preliminary stage. Consequently, this does not represent a feasible alternative to the proposed project as it is inconsistent with the time-sensitive nature of this proposal.

There is no feasible alternative site for the proposed tertiary treatment project other than some other location within WRP-1. The proposed location of these facilities is disturbed and dedicated to sewage treatment uses, and no specific environmental impacts have been associated with this project. As a result, impacts would not be reduced or avoided at another location. The location of these improvements is not defined by the proposed project but by other municipal wastewater treatment and disposal planning processes currently under way and described in Chapter 1.0 of this document. There are no feasible location alternatives to the proposed project.

7.0 CUMULATIVE IMPACTS

A cumulative impact is an environmental impact which is created as a result of the combination of the environmental impacts associated with the project evaluated in this EIR together with the environmental impacts of other projects causing related impacts. The CEQA Guidelines provide that an EIR must discuss the cumulative environmental impacts of a project "when the project's incremental effect is cumulatively considerable" - that is, when the project's contribution is deemed considerable when viewed in light of the cumulative effects of past, current and probable future projects.

If the project does not involve an incremental effect that is "cumulatively considerable," the effect need not be considered significant, and discussion in the EIR can be limited to the basis for that conclusion. Projects which *do* involve cumulatively considerable contributions may or may not involve significant cumulative impacts. Project contributions to potential cumulative impacts may be found to be *de minimus* if environmental conditions would be essentially the same with or without the project. Project contributions may also be found less than cumulatively considerable if the project is required to implement or fund its fair share of mitigation measures designed to alleviate the cumulative impact.

When a project may involve a significant cumulative impact, the EIR must contain adequate analysis of that impact. The analysis should be based on either 1) a list of past, present, and probable future projects producing related or cumulative impacts, or 2) on a summary of projections contained in an adopted general plan or related planning document, or in a certified environmental document which described or evaluated regional or area wide conditions contributing to the cumulative impact. Where significant cumulative impacts are identified, the EIR must examine reasonable, feasible options for mitigating or avoiding the project's contribution. In some cases, the only feasible mitigation may involve the adoption of ordinances or regulations.

The CEQA Guidelines make a provision for cases in which cumulative impacts have been adequately addressed in a prior EIR for a community plan, zoning action, or general plan. If the proposed project is consistent with the previously-analyzed plan or action, then the project EIR should not further analyze the cumulative impacts addressed in the prior EIR.

The previous EIR addressed the potential cumulative impacts of the Crossroads project based on a list of approximately 14 other land development projects that were then in progress. Potentially significant cumulative impacts were identified as land use, traffic, public services, air quality and hazards. The cumulative scenario considered in the previous EIR addressed the Lathrop area, then unincorporated, located east of I-5. The

cumulative scenario addressed the addition of more than 3,300 dwelling units accommodating, 11,600 people, and 647 acres of commercial development in addition to the 528 acres of commercial and industrial development included within the Crossroads project.

The primary cumulative impact issues addressed in the previous EIR included 1) potential future pressure to develop additional agricultural lands as infilling of land within the then-existing Lathrop "community" proceeded, and 2) increased demands on County services as well as the Manteca Unified School District. The previous EIR included a detailed analysis of traffic impacts finding potentially significant impacts would occur at intersections and along segments of the freeway. Potential impacts on air quality would involve regionally significant contributions to ozone precursor emissions, including oxides of nitrogen and hydrocarbons.

The previous EIR was certified prior to the adoption of the Lathrop General Plan that, when adopted in 1991, established a comprehensive plan for development for the City as a whole. The overall plan, still in effect, includes consideration of potential development associated with the Crossroads project as well as development of substantial other areas for industrial and commercial development located east and southeast of the Southern Pacific Railroad. The Lathrop General Plan also accounted for anticipated population and housing growth in the new City over a 20-year period that would accommodate an increase of approximately 23,000 people in approximately 10,700 new housing units.

The EIR included in the Lathrop General Plan addressed the potential environmental effects of industrial, housing and other growth associated with implementation of the plan. These potential impacts were either mitigated through plan implementation or accepted by the Lathrop City Council in conjunction of adoption of the General Plan. Potential environmental effects considered in the General Plan EIR included the various cumulative effects addressed in the previous EIR (land use, traffic, services, air quality) on a more comprehensive level.

The potential cumulative impacts of the proposed project have been examined pursuant to the direction provided by the CEQA Guidelines. Most if not all of the potential cumulative impacts of the project have been identified in the previous EIR, and then more comprehensively in the Lathrop General Plan EIR, as summarized below. Consequently, the potential cumulative impacts of the project are considered adequately addressed based on the tiering provisions of Section 15152 of the CEQA Guidelines. Section 15152 provides in part that:

(d) Where an EIR has been prepared and certified for a program, plan, policy, or ordinance consistent with the requirements of this section, any lead agency for a later project pursuant to or consistent with the program, plan, policy, or

ordinance should limit the EIR or negative declaration on the later project to effects which:

(1) Were not examined as significant effects on the environment in the prior EIR; or

(2) Are susceptible to substantial reduction or avoidance by the choice of specific revisions in the project, by the imposition of conditions, or other means.

(e) Tiering under this section shall be limited to situations where the project is consistent with the general plan and zoning of the city or county in which the project is located, except that a project requiring a rezone to achieve or maintain conformity with a general plan may be subject to tiering.

As discussed in Section 4.9, all aspects of the proposed project are consistent with the adopted Lathrop General Plan and zoning. Potential cumulative impacts of the proposed project have been adequately addressed by the previous EIR and/or the Lathrop General Plan EIR, as discussed in more detail below:

Aesthetics. The proposed project would involve no significant aesthetic effects and no contribution to any potential cumulative aesthetic effect. New night lighting associated with the project would not be any greater than that which would be expected in conjunction with development of the Crossroads project as approved.

Agricultural Resources. Potential impacts of the proposed project on agricultural were adequately addressed in the previous EIR. The proposed project would not involve any new significant effects on agriculture.

Air Quality. Potential impacts of the proposed project on air quality were adequately addressed by the previous EIR and the Lathrop General Plan EIR. Project-specific impacts would be reduced to less than significant by mitigation measures included in this Supplemental EIR. More recent traffic studies included in this supplemental EIR indicate that the Crossroads project would result in substantially (i.e. 50%) less overall traffic than predicted in the previous EIR. Consequently the potential mobile source air quality effects of the project would not reach the levels predicted in the previous EIR. The proposed project would not involve any new significant effect that would not be mitigated and, therefore, would not involve any significant new potential contribution to cumulative air quality impacts.

Biological Resources. The proposed project would involve contributions to losses of biological values that were not addressed in the previous EIR but that were

addressed in the Lathrop General Plan EIR. These potential impacts would be mitigated to a less than significant level through the applicant and City's participation on the San Joaquin Multi-Species Conservation Plan. Consequently, the project would not contribute to any significant cumulative biological impact.

Cultural Resources. The proposed project would not result in any new potential for disturbance or impact on cultural resources. The previous EIR indicated that the project would have no effect. This supplemental EIR includes mitigation measures that would reduce potential for impacts on cultural resources to less than significant.

Geology and Soils. The potential impacts of the proposed project on geology and soils were addressed in the previous EIR, and again in the Lathrop General Plan EIR. The proposed project would not involve any substantial new potential impacts in this issue area, and these impacts would be reduced to less than significant with mitigation measures. Consequently there would be no contribution to cumulative impacts in this issue area.

Hazards and Hazardous Materials. The proposed project would not result in any new hazardous materials impact or contribute to a previously-identified impact.

Hydrology and Water Quality. Water-related issues addressed in the previous EIR have been eliminated through levee and storm drainage in the Crossroads area. The proposed project would involve concerns related to the proposed land application treated sewage effluent. These potential impacts would, however, be reduced to less than significant with proposed mitigation measures. The project would not involve potential for cumulative impacts in this issue area.

Land Use and Planning. Potential land use issues associated with the development of the Crossroads project were adequately addressed in the previous EIR as well as in the Lathrop General Plan EIR. The proposed project would not raise any significant new land use issues.

Mineral Resources. The proposed project does not involve any mineral resource issues and would not contribute to any new potentially significant effect in this issue area.

Noise. The previous EIR and the Lathrop General Plan EIR addressed potential noise issues in the Crossroads project area to an adequate level. The proposed project would not involve the addition of any substantial new noise sources or noise issues not previously addressed. In addition, any potential noise concerns would be reduced to less than significant with mitigation measures. Consequently there would be no contribution to cumulative effects in this issue area.

Population and Housing. Continuing buildout of the Crossroads project would contribute to secondary effects on housing and population identified in the previous EIR. These potential effects were also, however, addressed in the Lathrop General Plan EIR on a more comprehensive basis. The proposed project would not result in any more, or more significant, effects than were identified in the previous EIRs.

Public Services. This was identified as a potential cumulative concern in the previous EIR and was addressed in detail in the Lathrop General Plan EIR. The proposed project would not result in any substantial change in the amount of development associated with development of Crossroads, and the proposed remediation project would involve an interim reduction in that potential. Consequently, the project would not provide any more, or more significant, effect in this issue area then was identified in the previous documents.

Recreation. This issue was not identified as a cumulative concern in previous documents. The proposed project would not, however, result in any significant adverse effect on recreation. Therefore, the project would not contribute to any potentially significant cumulative effect.

Transportation/Traffic. This issue was addressed in detail and on a relatively comprehensive basis in the previous EIR and then again in the Lathrop General Plan EIR. The proposed project would not involve any potential increase in the amount of traffic generated by the project or its potential impact. In fact, as documented in Section 4.15, the continued development of the Crossroads project would result in less traffic generation, impact and mitigation requirements than were predicted in the previous EIR. Consequently, the project would not result in the need for any new mitigation measures or any new contribution to cumulative impact.

Utilities and Service Systems. Potential impacts on utilities were not addressed in the previous EIRs assessment of cumulative impact but were addressed in detail in the Lathrop General Plan EIR and in the various utility master plan documents identified and discussed in Chapter 1.0 of this Supplemental EIR. The proposed project would involve continuing buildout of the approved Crossroads project but would not involve any potential increase in demand in utilities. The proposed remediation project would not expand utility services, but would provide for availability to approved industrial and other development.

8.0 IRREVERSIBLE ENVIRONMENTAL CHANGES

CEQA requires that an EIR address any significant irreversible environmental changes which would be involved in the proposed project if it is implemented. Significant irreversible environmental changes could include conversion or use of substantial amounts of nonrenewable resources during the construction or operation of the project, or the commitment of resources to other uses or permanent non-use. Resources considered may include materials, land, energy or state of development/non-development. Consumption, use or commitment of resources is considered irreversible when it is likely that future generations will be bound by the decisions made today. Irreversible damage can also result from environmental accidents associated with the project. CEQA suggests that irretrievable commitments of resources be evaluated to assure that such current consumption is justified.

The previous EIR identified the potential irreversible environmental changes associated with the Crossroads project as development of the site for industrial purposes; such development would preclude other uses of the land in the future. In a related section, the previous EIR indicated that conversion of agricultural land associated with approval of the project would limit long-term options for other uses. The previous EIR also indicated that construction of the project, including the development of various industrial uses on the Crossroads site, would result in the use of non-renewable construction materials, fuels and other resources. This consumption was found to be generally incidental in a regional context.

The proposed project would contribute to the trends and conditions identified in the previous EIR. Continued development of the project pursuant to the amended DA would result in continued conversion of land to industrial use and consumption of limited amounts of non-renewable resources as new uses are constructed. This potential commitment of resources is consistent with the description in the previous EIR as well as well as with the requirements of land development generally.

The proposed remediation project would not involve irreversible changes in land use. The proposed storage ponds would be located in areas already dedicated to municipal sewage treatment use. The proposed land application areas would be used, on an interim basis, for the disposal of treated sewage effluent and would involve relatively incidental land disturbance associated with the construction of containment levees and water distribution facilities. These potential effects would be reversible. The proposed tertiary treatment project would involve relatively incidental land disturbance in an area already devoted to wastewater treatment purposes. This element of the project would involve no substantial irreversible changes.

There are no other changes associated with the project, or resources impacted by the project, which are not reversible.

9.0 REFERENCES CITED AND PERSONS CONSULTED

9.1 REFERENCES CITED

Anderson, N.O. & Associates. 2000. Summary Report, Geotechnical and Geologic Investigations, Crossroads Industrial Park, Lathrop, CA. April 28, 2000.

California Department of Fish and Game (CDFG). 1999. State and Federally Listed Endangered, Threatened, and Rare Plants of California. CDFG, Natural Heritage Division. Sacramento, CA. Revised January, 2001.

California Department of Conservation, Division of Mines and Geology. 2001. Maps of Known Active Faults Near-Source Zones in California and Adjacent Portions of Nevada.

EDAW. 2001. Draft Environmental Impact Report for the Lathrop Water, Wastewater, and Recycled Water Master Plan. State Clearinghouse Number 0198082050. March 2001.

EDAW. 2000. Manteca WQCF Phase III/IV Expansion Project, City of Manteca.

Fehr & Peers Associates Inc. 2001. Updated Trip Generation Analysis for the Crossroads Commerce Center in Lathrop. March 11, 2001.

Fehr & Peers Associates Inc. 1999. Crossroads Commerce Center Traffic Impact Study. November 1999.

Grunwald & Associates. City of Lathrop. 1991. City of Lathrop Comprehensive General Plan & Environmental Impact Report. State Clearinghouse Number 1991022059. Adopted December 17, 1991.

Hickman, J. C. (ed.). 1993. The Jepson Manual: Higher Plants of California. University of California Press. Berkeley, CA.

Kleinfelder, Inc. 2001 Data Report: Limited Soil and Groundwater Assessment, Crossroads Industrial Park, Lathrop, CA. February 15, 2001.

Lathrop, City of. 1991. Notice of Determination, Negative Declaration and Initial Study, Site Approval Application No. 91-17, Crossroads Ventures (construct 600,000 GPD sewage disposal plant). October 17, 1991 (Notice of Determination filing date).

Lathrop, City of. 1996. Notice of Determination, Negative Declaration and Initial Study, Site Approval 96-18 and Site Plan Review 96-19 (City of Lathrop and Libbey-Owens-Ford) – City Wastewater Treatment Plant Expansion to 1.2 MGD of Treatment Capacity. July 26, 1996 (Notice of Determination filing date).

Mills Associates. 1989a. Draft Environmental Impact Report, General Plan Amendment, Zone Reclassification and Major Subdivision for Crossroads Industrial Park. April 1989.

Mills Associates. 1989b. Final Environmental Impact Report 88-11, SCH No. 1988070516, Kearny Ventures, Ltd., General Plan Amendment, Zone Reclassification and Major Subdivision for the Crossroads Industrial Park. September 1989.

Nolte & Associates. 2000. City of Lathrop Master Plan Documents Volume 1, Master Plan Studies. June 2000.

Nolte & Associates. 2000. City of Lathrop Master Plan Documents Volume 2, Master Plan Plates. June 2000.

Nolte & Associates. 2000. City of Lathrop Master Plan Documents Volume 3, Technical Appendices. June 2000.

Nolte Associates, Inc. 2001. City of Lathrop Water Recycling Plant No. 1, Expansion of Land Application Area, Report of Waste Discharge. May 2001.

San Joaquin Valley Air Pollution Control District. 1998. Guide for Assessing and Mitigating Air Quality Impacts (GAMAQI). August 20, 1998.

Siegfried Engineering, Inc. and Century West Engineering. 1995. City of Lathrop Wastewater Facilities Plan.

Skinner, M. W., and B. M. Pavlik. 1994 (Revised January 1999). California Native Plant Society's Inventory of Rare and Endangered Vascular Plants of California. California Native Plant Society Special Publication No. 1 (5th. Ed.). Sacramento, CA.

Stoddard and Associates. 1992. Groundwater Investigation, Water Availability and Water Quality Trends, Crossroads Commercial Industrial Park, Lathrop CA. March 1992.

United States Army Corps of Engineers (ACOE). 1987. Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1. Prepared by Environmental Laboratory, Department of the Army, Waterways Experiment Station. Vicksburg, Mississippi.

US Department of the Interior, and USGS. 2000. A Tapestry of Time and Terrain: The Union of Two Maps - Geology and Topography. The Central Valley. October 18. Available at website: http://tapestry.usgs.gov/24centralvy.html

United States Fish and Wildlife Service (USFWS). 1996. National List of Vascular Plant Species that Occur in Wetlands: 1996 National Summary. United States Department of Interior, Fish and Wildlife Service. Washington, D.C.

Zeiner, D. C., Laudenslayer, W. F., Jr., and M. E. Mayer (Eds.). 1988. California's Wildlife: Volume 1: Amphibians and Reptiles. California Statewide Wildlife Habitat Relationship System. State of California, the Resources Agency, Department of Fish and Game. Sacramento, CA.

Zeiner, D. C., Laudenslayer, W. F., Jr., Mayer, M. E., and M. White (Eds.). 1990a. California's Wildlife: Volume II: Birds. California Statewide Wildlife Habitat Relationship System. State of California, the Resources Agency, Department of Fish and Game. Sacramento, CA.

Zeiner, D. C., Laudenslayer, W. F., Jr., and Mayer, M. E., and M. White (Eds.). 1990b. California's Wildlife: Volume III: Mammals. California Statewide Wildlife Habitat Relationship System. State of California, the Resources Agency, Department of Fish and Game. Sacramento, CA.

_____. 2001a. California Natural Diversity Data Base (CNDDB). CDFG, Natural Heritage Division. Sacramento, CA.

_____. 2001b. State and Federally Listed Endangered and Threatened Animals of California. Revised January, 2001. CDFG, Natural Heritage Division. Sacramento, CA.

_____. 2001c. Special Plants List. Revised January, 2001. CDFG, Natural Heritage Division. Sacramento, CA.

_____. 2001d. List of California Terrestrial Natural Communities Recognized by the Natural Diversity Database. Revised January, 2001. CDFG, Natural Heritage Division. Sacramento, CA.

9.2 INTERNET REFERENCES

http://www.ci.manteca.ca.us/fire/whatwedo.html#Staff. Project site fire service information.

http://www.ciwmb.ca.gov/Profiles/Juris/JurProfile2.asp?RG=C&JURID=254&JUR=Lathrop. Project site solid waste service and disposal information.

http://www.consrv.ca.gov/dmg/. Maps of Known Active Faults Near-Source Zones in California.

http://www.lathropgov.org. City of Lathrop general information.

http://www.lathropgov.org/police.html. Project site police service information.

http://www.mantecausd.net/schools.html. Project site school service information.

9.3 PERSONS CONSULTED

Batista, Ramon IV. Assistant City Manager, City of Lathrop.

Buck, Ken. Extension of Staff, Department of Public Works, City of Lathrop.

Burns-Cochran, Susan. City of Lathrop, City Attorney

Choa, Fred. Fehr & Peers Associates, Traffic Engineer.

Crawford, Jon. Engineer, Nolte & Associates

Dixon, Robert C. Dixon Agronomics.

Dolim, Steve. Vice President, Catlin Properties.

Gray, Rod. Project Engineer, Siegfried & Associates.

Hakeem, Mike. Attorney, Hakeem, Ellis, & Marengo.

Jakobs, Violet. City of Lathrop, Engineer.

Litton, Gary M. Professor of Engineering, University of the Pacific.

Richards, David. Engineer, Nolte & Associates.

Webb, Bill. Project Manager, Nolte & Associates.

9.4 EIR PREPARERS

This document was prepared by InSite Environmental of Stockton, under the direction of Ramon Batista IV, Assistant City Manager of the City of Lathrop.

Major assistance in the preparation of this document was provided by EDAW of Sacramento. The following EDAW staff were principal contributors: Sean Bechta, Francene Demos, James Kurtz, Julie Mentzer and Eric Wilson.

APPENDIX A
REPORT OF WASTE DISCHARGE

CITY OF LATHROP
WATER RECYCLING PLANT NO. 1

EXPANSION OF LAND APPLICATION AREA

REPORT OF WASTE DISCHARGE

RECEIVED
MAY 17 2001

May 2001

Submitted to:
CALIFORNIA REGIONAL WATER
QUALITY CONTROL BOARD
Central Valley Region
3443 Routier Road, Suite A
Sacramento, CA 95827-3003

REGISTERED PROFESSIONAL ENGINEER
DONALD R. CARO
NO. 33479
Exp 6-30-02
CIVIL
STATE OF CALIFORNIA

Prepared by:
NOLTE ASSOCIATES, Inc.
1750 Creekside Oaks Drive, Suite 200
Sacramento, CA 95833
(916) 641-1500 • (916) 641-9222 (fax)

CITY OF LATHROP WATER RECYCLING PLANT NO. 1
EXPANSION OF LAND APPLICATION AREA
REPORT OF WASTE DISCHARGE

LIST OF FIGURES

LIST OF TABLES

1. INTRODUCTION

Wastewater from the City of Lathrop (City) is currently treated and disposed at two facilities, a City-owned treatment plant and a regional wastewater treatment plant located in the City of Manteca. The City presently generates 750,000 gal/d of wastewater. Of this amount, 90 percent of the wastewater originates from residential and commercial sources located north of Louise Avenue. This wastewater is conveyed to and treated at the Manteca Wastewater Quality Control Facility (WQCF). The remaining wastewater originates from a 500-acre commercial/industrial business park (Crossroads Commerce Center) located south of Louise Avenue. These flows are treated at the Lathrop Water Recycling Plant No. 1 (WRP-1), formerly designated the Lathrop Wastewater Treatment Plant (WWTP, a.k.a. Crossroads). Approximately 80,000 gal/d of wastewater is treated at WRP-1. WRP-1 was constructed in 1994 by the developers of the Crossroads Commerce Center. The location of WRP-1 is presented in Figure 1.

A schematic flow diagram of the existing Lathrop WRP-1 is included as Figure 2. The treatment train consists of influent pumping, mechanical screening, grit and grease removal, extended aeration, and clarification. Effluent is discharged to three 2.4-ac evaporation/percolation (E/P) ponds for disposal. Solids collected from the mechanical screens, grit, and grease-removal processes are hauled to a local landfill for disposal. Waste activated sludge is dewatered by a polymer-bag process, and disposed offsite. Lathrop WRP-1 operates under Regional Board Order No. 94-198. A summary of waste discharge requirements is included in Table 1.

The Lathrop WRP-1 was constructed to process an average daily flow of 600,000 gal/d, the projected flow from the Crossroads Commerce Center at build-out. Some allowances for doubling the plant capacity to 1.2 Mgal/d in the event the City should wish to serve a larger area beyond the commercial/industrial park were included in the initial facility. Planning is currently underway to expand the treatment capacity of the plant to 1.2 Mgal/d (Phase 1A project) and potentially to serve additional infill areas within the City's developed core, along with the initial phases of the West Lathrop Specific Plan (WLSP) area. Expansion of the plant capacity will be accompanied by the addition of tertiary treatment facilities to produce recycled water suitable for unrestricted reuse. At the completion of the Phase 1A project, WRP-1 will be classified as a 1.2 Mgal/d full Title 22 reclamation plant.

In terms of wastewater disposal, to meet the average daily flow of 600,000 gal/d at WRP-1, construction of the E/P disposal ponds was planned to take place in three phases over 15 years as the service area developed. Three ponds would be constructed in each phase, or approximately 7.5 acres of E/P ponds per phase. Currently, only the Phase 1 E/P ponds have been constructed, limiting the theoretical plant disposal capacity to about 200,000 gal/d.

Actual percolation rates observed in the E/P ponds have been much lower than originally anticipated. A 1998 geotechnical investigation of the E/P ponds found that the lower

infiltration rates were primarily due to a lower transmissivity of the underlying aquifer than originally reported. The investigation concluded that the three existing E/P ponds could accommodate a maximum discharge of approximately 60,000 gal/d, less than one-third of their anticipated capacity [1]. Subsequent investigations [2] reevaluated the earlier geotechnical data and concluded that the existing E/P ponds had a total capacity of approximately 100,000 gal/d for a 100-year winter, if the infiltration capacity of Pond 3 is restored to that of Pond 2. Because the discharge capacity of WRP-1 is significantly lower than anticipated, and site conditions of the existing E/P ponds inhibit their long-term use for evaporation and percolation, the City has investigated alternative reclamation and reuse options for wastewater disposal. Specifically, the City is proposing the construction of treated wastewater storage ponds and land application areas to replace the existing E/P ponds as part of an initial disposal system remediation project. Future activities will include the development of additional land application sites and the extension of a recycled water delivery system.

A. Project Description

A wastewater reclamation project is proposed which utilizes up to 250,000 gal/d of treated secondary effluent from WRP-1 within an expanded land application area. The project includes the construction of a new lined 52.0 ac-ft storage pond, and the conversion/reconstruction of the existing E/P ponds into 68.9 ac-ft of lined storage ponds. Land application of recycled water would occur on 43.8 ac of crop lands within the Crossroads Commerce Center. The recycled water would be pumped to the proposed sites via recycled waterlines located within street rights-of-way (Christopher Way and D'Arcy Drive). Each land application site would be graded to maximize its use for cultivation of forage crops, such as alfalfa. Each site would include a perimeter road on a berm 3-feet higher than the land application area, to maintain all applied water within the site.

Spray irrigation is the preferred method of irrigation. Flood irrigation may be used with careful attention to land preparation and the length of irrigation runs. However, the appropriate irrigation method will be determined by a contract farmer who is knowledgeable of the soils, intended crops, and water management requirements of the land application areas. Setbacks would be a minimum of 33-ft from the property line for both flood and spray applications. Monitoring wells would be installed to characterize the existing groundwater, and to assess compliance with future waste discharge requirements. The proposed improvements are shown in Figure 3.

B. Form 200

Form 200 is presented in Appendix A.

2. WASTE CHARACTERISTICS

Estimated wastewater flow rates and effluent water quality, resulting from anticipated growth within the Crossroads Commerce Center and implemented improvements to the Lathrop WRP-1, are presented in this section.

A. Volume of Wastewater Discharge

A summary of daily wastewater flows from the Lathrop WRP-1 during the year 2000 and early 2001 is presented in Table 2. As shown in Table 2, flows during 2000 increased from a monthly average of 45,000 gal/d to a little over 80,000 gal/d. The average monthly flow rate for the most recent month included in Table 2 (February 2001) is 84,000 gal/d. It is expected that, as a result of additional growth within the Crossroads Commerce Center, the wastewater flow rate will continue to increase. The maximum anticipated average monthly flow is 250,000 gal/d. Therefore, the land application sites proposed in this Report of Waste Discharge are designed to accommodate a flow of 250,000 gal/d.

B. Characterization of Wastewater Quality

A summary of effluent wastewater quality from the Lathrop WRP-1, measured during the last fourteen months, is provided in Table 3. Average monthly values for Biochemical Oxygen Demand (BOD), Total Suspended Solids (TSS), Total Nitrogen (TN), and pH, which are measured weekly, are provided. Values for Total Dissolved Solids (TDS), measured monthly, are also presented in Table 3. It can be seen that the quality of effluent produced at the WRP-1 is excellent. Average values for BOD, TSS, and TN are 3.0, 9.0, and 3.6 mg/L, all within the waste discharge requirements presented in Table 1.

C. Future Wastewater Quality

Because the WRP-1 is designed to treat a flow of 600,000 gal/d, it is expected that effluent quality for flows up to 250,000 gal/d will continue to meet permit requirements. Values for TDS, which currently average 1250 mg/L, are expected to decline, as additional wastewater flows will consist primarily of domestic sanitary wastewater, rather than high-strength industrial flows which currently dominate.

It has been documented that supply groundwater TDS is 320 mg/L [3]. Using the maximum suggested TDS pick-up of 380 mg/L for domestic use of water [4], the resulting expected sanitary wastewater TDS concentration is 700 mg/L. In Table 4, it can be seen that the expected TDS concentration for a flow of 250,000 gal/d is 865 mg/L, even without implementation of industrial pretreatment requirements by the City. However, to meet an effluent TDS target concentration of 700 mg/L at lower flow rates, industrial pretreatment standards for existing industrial dischargers will be implemented to reduce TDS concentrations to 700 mg/L.

3. LAND APPLICATION OF RECLAIMED WASTEWATER

As described above, undisinfected secondary effluent from Lathrop WRP-1 will be reclaimed for agricultural irrigation. The land application system is described in this section. In addition, the locations of adjacent wells and residences are provided.

A. Location of Land Application Sites

The location of the proposed land application sites is depicted in Figure 3. The land application sites are located in Section 35 of T. 1S R. 6E, and Section 2 of T. 2S R. 6E, Mount Diablo Base and Meridian.

Three land application sites will be utilized for the cultivation of forage crops, with the following net acreages (after accounting for setbacks and surrounding berms and roads):

Land Application Site 1	6.0 ac
Land Application Site 2	18.2 ac
Land Application Site 3	19.6 ac
Total	43.8 ac

The total area value of 43.8 acres represents the net area available for irrigation, after accounting for the 33-ft perimeter setback at each of the three land application sites. As described previously, the 33-ft perimeter setback includes a 3-ft high berm and perimeter road.

B. Location of Neighboring Residences and Wells

The California Department of Water Resources (DWR) maintains a well database. Based on a search of the DWR well database, four wells were identified in the vicinity of the proposed land application area. All four wells are at least 500 ft from the disposal site. The well registration numbers are 01S06E34K01M, 01S06E26K01M, 01S06E36C01M, and 02S06E02H01M, where the well registration number digits represent the township, range, section, tract, well number, and M refers to Mount Diablo Base and Meridian.

In addition to the wells registered in the DWR database, wells indicated on the USGS 7.5-minute quad map for Lathrop are also considered. The locations of the mapped wells are depicted in Figure 4. As shown in Figure 4, none of the wells are located within 500 ft of the proposed land application area. Recycled water requirements provided in the California Code or Regulations Title 22 indicate that domestic supply wells may not be located closer than 150 ft from areas to which undisinfected recycled water is applied. For reference, the 150-ft setback is also indicated in Figure 4.

The Crossroads Commerce Center is zoned for commercial and industrial establishments, and includes no residences. Consequently, there are no residential properties within 500 ft of the proposed land application areas.

4. WASTEWATER STORAGE PONDS

The proposed wastewater storage ponds will provide storage for treated effluent during periods when crop irrigation needs are reduced due to climatic conditions. The ponds are sized to provide a minimum of two feet of freeboard during 100-year precipitation conditions, as discussed below. The ponds will be lined and will have interior sidewall slopes of 3:1. The location of the ponds is depicted in Figure 3, and pond dimensions are provided in Table 5. The pond volumes for Ponds A, B, and C are 52.0, 40.7, and 28.2 ac-ft, for a combined pond volume of 120.9 ac-ft, with a pond depth of 12 ft. For a maximum water depth of 10 ft (freeboard of 2 ft), the corresponding water storage volumes for Ponds A, B, and C are 42.0, 33.0, and 22.7 ac-ft, for a total water storage volume of 97.6 ac-ft, or 81 percent of the pond volume.

Impoundments of water may be subject to jurisdiction of the California Department of Water Resources, Division of Safety of Dams (DOSOD). Typically, DOSOD has jurisdiction over impoundments storing from 15 to 50 ac-ft, where the dam height is over 25 ft, and impoundments storing more than 50 ac-ft, where the dam height is over 6 ft (dam height measured vertically from the berm toe to the highest water level or spillway structure). However, the California Water Code (Chapter 2) includes certain exemptions from DOSOD jurisdiction. Specifically, wastewater storage ponds are exempt when the stored volume is less than 1500 ac-ft, and the dam height is less than 15 ft, where the operating public agency adopts certain resolutions. The California Water Code section dealing with wastewater storage pond exemptions, available at the DOSOD internet site at http://damsafety.water.ca.gov/statutes/statutes.htm, reads as follows:

> *6025.5. (a) Notwithstanding any other provision, subject to subdivision (b), the requirements for state regulation and supervision of safety of dams, as contained in this division,* ***shall not be applicable to waste water treatment and storage ponds constructed as a part of a waste water control facility.***
> *(b) This section applies to those ponds specified in subdivision (a) only after the governing body of the city, county, district, or other agency which operates the waste water control facility* ***adopts a resolution*** *which (1) finds that the ponds have been constructed and operated to standards adequate to protect life and property, and (2) provides that the city, county, district, or other agency shall supervise and regulate the design, construction, operation, enlargement, replacement, and removal of the ponds after the effective date of the resolution.*
> *(c) This section applies only to ponds specified in subdivision (a) which (1) have a* ***maximum height of 15 feet or less*** *and a* ***maximum storage capacity of 1,500 acre-feet or less,*** *(2) have been designed by, and constructed under the supervision of, a registered civil engineer, and (3) are not across a stream channel or watercourse.*

Because the proposed wastewater storage ponds will hold less than 1500 ac-ft, and will have a depth less than 15 ft, the ponds will be exempt from DOSOD jurisdiction upon adoption by the City of Lathrop of the resolution described above.

6. SOILS

Soils in the Crossroads Commerce Center are described in this section, based on documented sources and results obtained from onsite soils testing in the proposed land application areas.

A. Published Information

According to the *Soil Survey of San Joaquin County* [5], soils at the Crossroads Commerce Center generally consist of deep, well-drained alluvium from granitic rock and mixed rock sources. The principal soil types in the vicinity of the proposed land application areas are Tinnin loamy coarse sand, Veritas fine sandy loam, Merritt silty clay loam, and Timor loamy sand. The locations of these soil types are presented in Figure 5, and the characteristics of the soils are described in Table 6. As presented in Table 6, soils at the proposed land application areas generally exhibit moderately rapid (2.0 to 6.0 in/hr) to rapid (6.0 to 20 in/hr) permeability, with intake rates of 1.5 to 3.0 in/hr. Small areas exhibit moderately slow (0.2 to 0.6 in/hr) permeability. Movement of water through the soil profile may be restricted by the presence of a shallow hardpan layer. It is proposed that the land application sites be deep-ripped during preparation to minimize potential restrictions due to the shallow hardpan layer. Careful application of irrigation water will be practiced. Drainage of the soils is described as good, and the soils are characterized as productive.

B. Results of Onsite Testing

A geotechnical investigation was conducted by Kleinfelder, Inc. [6]. The following work was performed:

a. 5 groundwater monitoring wells, sample collection for chemical analyses
b. 13 continuous cored soil borings 35 to 40 feet deep
c. 20 soil mantle profile pits
d. 4 infiltration tests
e. 2 well pump tests
f. Grain-size distribution and plasticity tests

The Kleinfelder report is included in Appendix B. Cross-sections of the soil borings are presented, along with descriptive information. In general the soil borings show the upper soils (7-10) feet consist of sandy silts that overlie 20-30 feet of cleaner sands with intermittent, non-continuous silt and clay lenses. The locations of the onsite soils tests are depicted in Figure 6.

In Table 7, the results of onsite infiltration and percolation tests conducted in January 2001 are summarized. Infiltration was measured using a double-ring infiltrometer, following the procedure outlined in ASTM 3385. Two infiltration tests were conducted, with representative infiltration rates of approximately 1.80 and 0.18 cm/hr (0.71 and 0.07 in/hr, respectively). Percolation tests were conducted according to the procedure provided by San Joaquin County, with results ranging from 0.16 to 0.67 in/hr. The measured permeabilities range from slow to moderate, as classified by the Soil Conservation Service (now Natural Resources Conservation Service) [5].

7. GROUNDWATER

To determine existing groundwater depth and gradient, an onsite investigation of groundwater conditions was performed. The results of the groundwater investigation are discussed below.

A. Groundwater Depth and Gradient

Groundwater conditions at the proposed land application sites were evaluated in January 2001 by Kleinfelder [6]. Five shallow groundwater monitoring wells were installed and sampled. The fifth well was installed in an area that will not be used, and is not considered here. The locations of the monitoring wells are shown in Figure 6. Depth to groundwater measurements are provided in Table 8. As seen in Table 8, the average depth to groundwater is 10.5 ft. The groundwater elevations indicate that local groundwater flow direction is generally from east to west, with an average regional gradient of approximately 0.12 percent.

B. Groundwater Quality

Groundwater samples were collected from the monitoring wells installed by Kleinfelder. Details of the sampling protocol are discussed in the Kleinfelder report presented in Appendix B. General minerals and priority pollutant concentrations were quantified. A complete set of laboratory test results from Sequoia Analytical, Inc., are contained in Appendix B.

The measured values for specific conductivity (electroconductivity, or EC), TDS, and nitrate in groundwater collected from the test monitoring wells are summarized in Table 8. As shown in Table 8, TDS concentrations vary from 1310 to 3840 mg/L, with an average value of 2535 mg/L. The most impacted area is near MW-4, where the TDS and nitrate concentrations were measured at 3840 mg/L and 90.4 mg/L as N, respectively. The average nitrate value is 25.0 mg/L as N, and the average EC value is 3475 μmho/cm. Because the TDS, EC, and nitrate values are higher than would be expected for unimpacted groundwater, it is likely that the higher constituent concentrations are the result of historical practices in the area.

8. WASTEWATER MANAGEMENT PLAN

The wastewater management plan is based on a consideration of crop water and nutrient needs, quality and quantity of applied water, and application site historical climate data. Management provisions are included to avoid the occurrence of spills and nuisance conditions. Because agricultural irrigation is recommended, the suitability of the soils for treated wastewater effluent application was evaluated (see above), and agronomic application rates were established.

A. Crop Water Use

Crop water use is dependent upon climatic conditions at the land application site. Crop water needs can be estimated based on reference evapotranspiration (ET) values for the area. A portion of the crop water requirement is met by precipitation. During the summer, when little or no precipitation occurs, application of supplemental irrigation water is required to meet crop water needs. Using 100-year and normal-year precipitation data, water balances were created for the proposed land application area.

The water balances are based on Manteca CIMIS precipitation and evapotranspiration data collected from 1988 (first full year of operation) to 2000. The 100-year model is based on a 100-year annual precipitation depth for the Manteca area of 21.83 in, provided by the California Department of Water Resources, based on precipitation records dating back to 1931. The annual precipitation depth is divided into monthly depths using the average monthly precipitation values from the Manteca CIMIS station.

A wastewater flow of 250,000 gal/d is used for both water balances. Precipitation inflow to the storage ponds is based on the precipitation values described above, times the pond catchment area. Evaporation outflow is based on the evaporation rates described above, times the pond water surface area (surface area is variable and is estimated as a function of net monthly volume, using the storage pond data presented in Table 5). Monthly changes in pond volume are calculated by adding the inputs (wastewater and precipitation) and subtracting the outputs (evaporation and applied wastewater, discussed below). The storage ponds will be lined, so infiltration losses from the ponds are assumed to be negligible. The ponds are assumed to be empty at the beginning of October, and are sized to provide a water depth no greater than 10 ft during 100-year precipitation conditions. A minimum freeboard of 2 ft will be provided at all times.

The 100-year water balance is presented in Table 9. As seen in Table 9, the total storage pond precipitation catchment area is 14.2 ac. During 100-year conditions, an annual wastewater volume of 280 ac-ft enters the pond, and 263 ac-ft is discharged, reflecting a net loss due to precipitation and evaporation of 17 ac-ft (6 percent). The maximum total storage pond water volume and depth are 96 ac-ft and 9.9 ft, respectively, occurring in March. These values compare favorably with the proposed available water storage volume of 98 ac-ft (total pond volume = 121 ac-ft).

Wastewater applications are based on an assumed soil percolation rate of 0.06 in/hr, which is the Natural Resources Conservation Service cutoff for "Very Slow" percolation. The assumed percolation value of 0.06 in/hr is also lower than the slowest value measured onsite. Although, based on the soils data reported in Tables 6 and 7, higher percolation rates could be used, a conservative percolation value is used to reduce the volume of water disposed by percolation. The assumed soil percolation rate is further reduced by multiplying by a safety factor of 8 percent, to avoid saturating the soils and creating conditions that would be unfavorable to crops. The value of 8 percent is within the recommended safety factor range of 4 to 10 percent [7]. The resulting design percolation rate is about 3.5 in/month.

Monthly "natural percolation" values, defined as precipitation minus evapotranspiration (zero when negative), are calculated for each month. Where natural percolation exceeds design percolation, as in January, no wastewater is applied. However, where natural percolation is less than design percolation, wastewater is applied to make up the difference. Wastewater is also applied to meet "Net ET," defined as evapotranspiration minus precipitation (zero when negative). Because a forage crop will be grown year-round at the land application site, similar to the grass used for CIMIS reference ET, a crop coefficient of 1.0 is used. It is also assumed that reference ET values are approximately equal to evaporation rates from large water bodies, such as wastewater storage ponds. The wastewater application depth for each month equals Net ET, plus the depth applied to meet design percolation. The *volume* of wastewater applied equals the applied depth times the application area.

As seen in the 100-year water balance presented in Table 9, the total percolation depth is 43.2 in/yr, consisting of 9.1 in/yr of natural precipitation and 34.0 in/yr of applied wastewater. An additional 38.1 in/yr of applied wastewater is required to meet Net ET, resulting in a total wastewater application rate of 72.2 in/yr. The land application area is 43.8 acres, which represents the net irrigable area available after accounting for setbacks.

The pond volume and application area values from Table 9, designed to meet 100-year precipitation conditions, are used in Table 10 for normal-year precipitation conditions. As seen in Table 10, the storage pond maximum water volume and depth for normal precipitation conditions are reduced to 83 ac-ft and 8.7 ft, respectively. The applied wastewater depth under normal conditions is reduced to 69.7 in/yr, consisting of an applied percolate depth of 28.3 in/yr, and a crop Net ET depth of 41.4 in/yr. Under normal conditions, the corresponding percolation safety factor is reduced to 6 percent of the assumed saturated percolation rate.

B. Crop Nutrient Use

Organic, nutrient, and salt loading rates may be calculated using hydraulic loading rates from the normal-year water balance, and average wastewater values for BOD, Total Nitrogen (TN), and TDS. In Table 11, average Lathrop WRP-1 values for BOD, TN, and TDS of 3.0, 3.6, and 1250 mg/L, respectively, are used. It should be noted that the TDS

value for wastewater effluent used in the referenced computations (1250 mg/L) exceeds anticipated TDS values by a factor of two. As discussed above, existing TDS concentrations are due largely to industrial discharges to the plant, which will be reduced by the implementation of industrial pretreatment requirements. It is also anticipated, as shown in Table 4, that TDS will also be reduced by the addition of domestic sanitary flows to the wastewater stream.

As seen in Table 11, the resulting organic loading rate is 47 lb/yr, for an annual average of less than 0.2 lb/ac·d. Even during the peak organic loading month of July, the average is less than 0.3 lb/ac·d. Because estimated organic loading rates are well below accepted limits of 100 lb/ac·d [7, 8], applied organic matter will be broken down aerobically within the soil matrix, and no impacts to groundwater will occur.

Also, as seen in Table 11, the estimated annual nitrogen load is 57 lb/ac·yr. It is expected that alfalfa will be cultivated at the land application site. According to the Western Fertilizer Handbook [9], nitrogen uptake for alfalfa is 480 lb/ac·yr. Because the applied nitrogen is much less than the amount utilized by the crop, applied nitrogen will be consumed in the soil. Additional soil nitrogen-removal processes such as ammonia volatilization and nitrate denitrification will further reduce the potential for nitrogen migrating to the groundwater.

Unlike organic matter and nitrogen, which will be consumed within the plant-soil matrix, dissolved minerals in the form of TDS will not be removed completely. Although it can be expected that a portion of TDS will be removed in the harvested crop, the remainder will be flushed down to the underlying aquifer. Due to the effect of evapoconcentration within the soil, percolate TDS concentrations will be higher than the TDS concentration of the applied water, a factor which must be addressed by all irrigators. Typically, the issue of salt accumulation in the soil is managed by using a leaching factor (i.e., applying more water than the crop needs so that excess percolate will leach the salts out of the root zone).

In Table 11, the percolate TDS concentration based on current wastewater TDS concentrations (1250 mg/L) is estimated to be 2706 mg/L, based on normal-year salt loading and percolate depth. The percolate concentration is based on the assumption that none of the TDS is in the form of organic dissolved solids, and that all of the applied TDS is conveyed by the percolate. Although reductions in the organic fraction, and mineral reductions by crop uptake and harvest, will result in lower values, the estimated value of 2706 mg/L can be used as a worst case value to be compared with groundwater quality in the receiving aquifer (during wet years, percolate concentrations are further reduced).

As discussed above, groundwater TDS at the proposed land application area ranges from 1310 to 3840 mg/L, with an average value of 2535 mg/L (see Table 8). Although the estimated percolate TDS (2706 mg/L) is in the range of existing groundwater quality, it is proposed that industrial pretreatment requirements be implemented for existing dischargers to reduce effluent TDS concentrations.

In Table 11, TDS loading based on the estimated future effluent TDS concentration of 700 mg/L is determined to be 11,055 lb/ac·yr, resulting in a percolate TDS concentration of 1516 mg/L. The percolate value of 1516 mg/L compares favorably to the existing groundwater TDS average value of 2535 mg/L. Therefore, although the estimated future TDS loading rate presented in Table 11 is not as favorable as the BOD and TN application rates, the relative impact to groundwater will be negligible, and an argument can be offered for no degradation.

C. Management Provisions

The wastewater treatment system and land application system will be managed to prevent nuisance conditions that could impact nearby neighbors or other sensitive receptors. To prevent generation of odors, all ponds will be aerated to maintain a surface dissolved oxygen concentration of at least 1.0 mg/L. Wastewater applications to the land disposal area will be controlled so that no standing water will be present after 48 hours. All wastewater, both applied and stored, will be retained onsite. A tailwater recovery system will be used to collect and recycle applied water. The land application sites will be fenced with appropriate signage for recycled water use. Contractual arrangements will be executed between the City and the Crossroads Commerce Center to provide for City control of the land application sites.

9. OWNER INFORMATION

This information is provided in Form 200, as presented in Appendix A.

10. ADDITIONAL ISSUES

The additional issues of a proposed monitoring and reporting program, solids handling, and CEQA compliance are addressed below.

A. Monitoring and Reporting Program

It is proposed that the following monitoring and reporting schedule be implemented:

Daily:	Wastewater Flow
Weekly:	Pond DO concentrations
Monthly:	Applied wastewater BOD, EC, TDS, FDS, VDS, Cl, NO_3, TKN, pH
Quarterly:	Monitoring wells BOD, EC, TDS, FDS, VDS, Cl, NO_3, TKN, pH
Yearly:	Standard Minerals analysis of supply water and applied wastewater

Reports will be submitted monthly, with quarterly (monitoring well) and annual (Standard Minerals) data being submitted the month following collection and analysis of samples. At the end of each year, an annual report will be prepared summarizing the

results of land application of wastewater, and calculating the hydraulic, organic, and nutrient load to the disposal area. The impact on groundwater will also be evaluated in the annual report.

A groundwater investigation will be conducted to determine the number and location of monitoring wells required to monitor the impacts of land disposal of wastewater to the underlying aquifer. Before the required wells are installed, a monitoring well installation workplan will be submitted to the Regional Board for approval.

B. CEQA Compliance

Potential impacts associated with the proposed expansion of the land application area are addressed in the Supplement to the Environmental Impact Report for the Crossroads Industrial Park relative to the Amendment of Development Agreement and Revised Sewage Disposal System. This draft document will be distributed for public comment by the end of May. Following receipt of public comments, the final supplement will be prepared for subsequent certification by the City of Lathrop.

11. REFERENCES

[1] Stoddard and Associates, *Recommended Flow Rate and Hydraulic Loading Cycles*, 1998.

[2] Litton, Gary M., *Preliminary Lathrop Wastewater Pond Infiltration Evaluation*, 1999.

[3] Nolte Associates, Inc., *City of Lathrop Master Plan Documents*, 2001.

[4] Crites, Ronald W. and George Tchobanoglous, *Small and Decentralized Wastewater Management Systems*, 1998.

[5] U.S. Department of Agriculture Soil Conservation Service (now Natural Resources Conservation Service), *Soil Survey of San Joaquin County, California*, USDA, 1992.

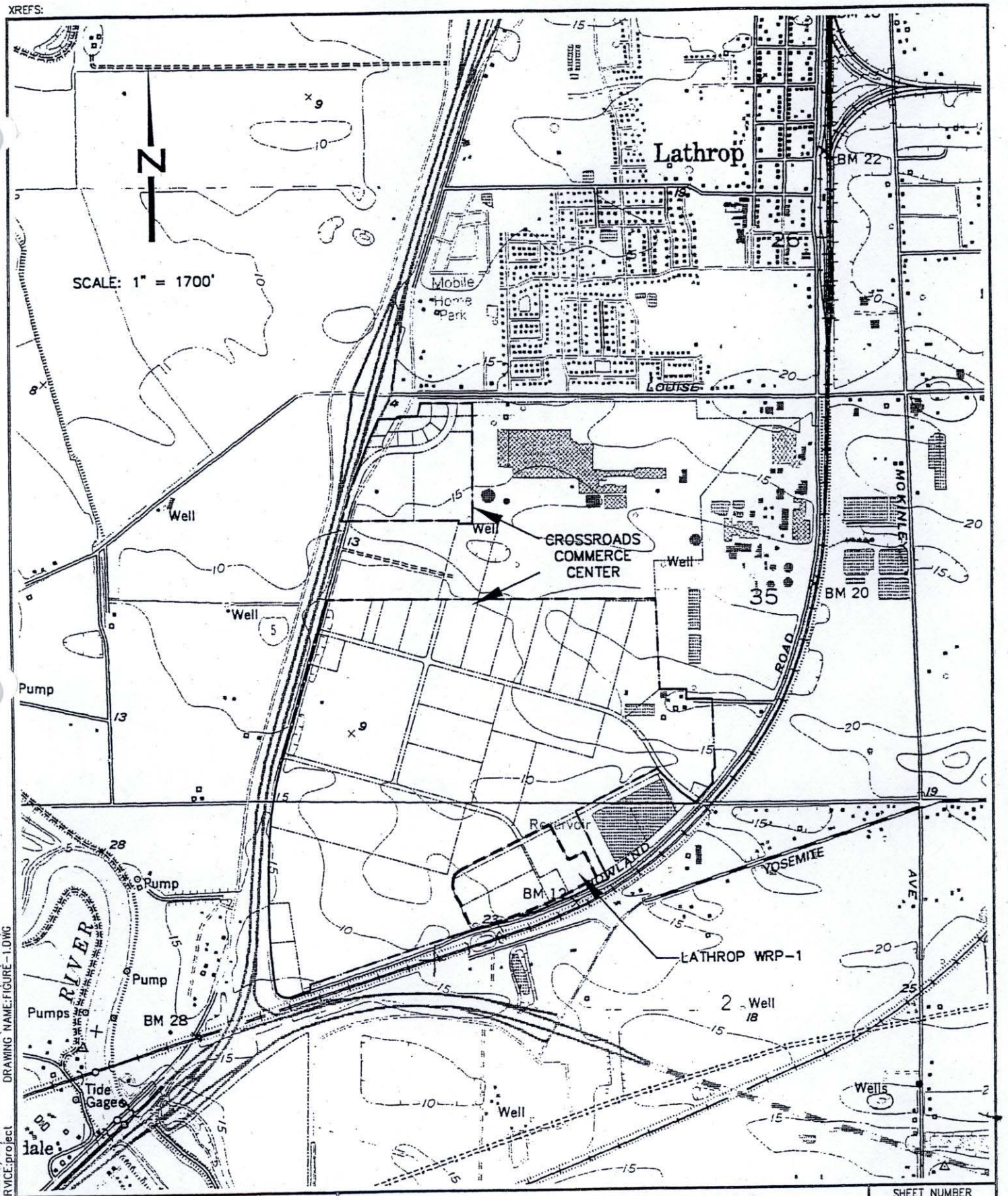
[6] Kleinfelder, Inc., *Data Report: Limited Soil and Groundwater Assessment, Crossroads Industrial Park, Lathrop, California*, 2001.

[7] Reed, Sherwood C., Ronald W. Crites, and E. Joe Middlebrooks, *Natural Systems for Waste Management and Treatment*, McGraw-Hill, Inc., New York, NY, 1995.

[8] Pettygrove, G. Stuart and Takashi Asano (eds.), *Irrigation With Reclaimed Municipal Wastewater - A Guidance Manual*, Lewis Publishers, Inc., Chelsea, MI, 1985.

[9] California Fertilizer Association Soil Improvement Committee, *Western Fertilizer Handbook*, Interstate Publishers, Inc., 1995.

XREFS:



DATE:05/09/01 PATH:N:\WC0442\02\cadd\
SERVICE:project DRAWING NAME:FIGURE-1.DWG
TIME:09:27
SERVER:sos1

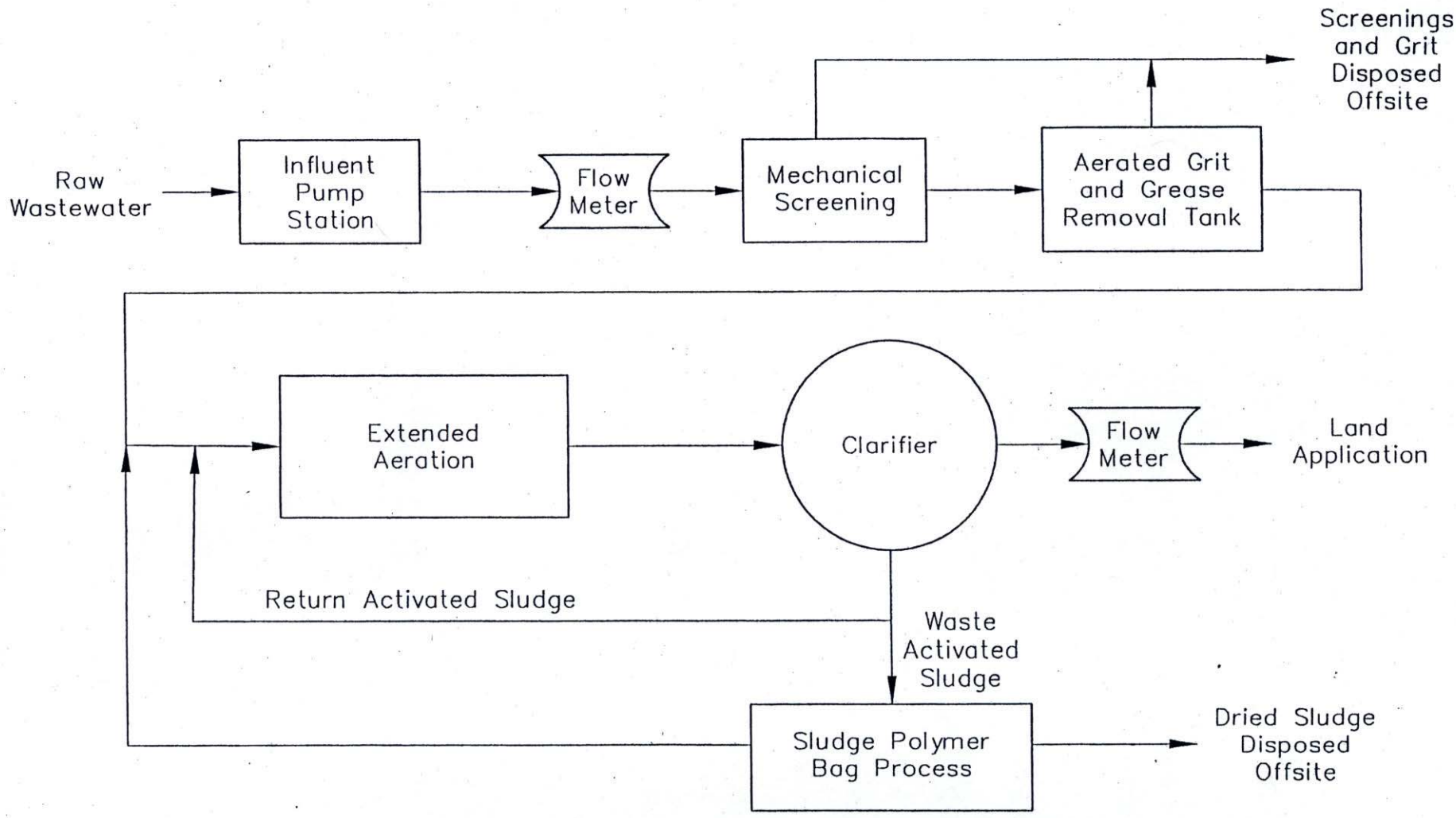
NOLTE
BEYOND ENGINEERING
1750 CREEKSIDE OAKS DR. SUITE 200, SACRAMENTO, CA 95833
916.641.1500 TEL 916.641.9222 FAX WWW.NOLTE.COM

PROJECT SITE MAP
LOCATION OF LATHROP WRP NO. 1 AND CROSSROADS COMMERCE CENTER

PREPARED FOR: CITY OF LATHROP DATE SUBMITTED: 4-10-01

SHEET NUMBER 1 OF 6 SHEETS

JOB NUMBER WC0442 04



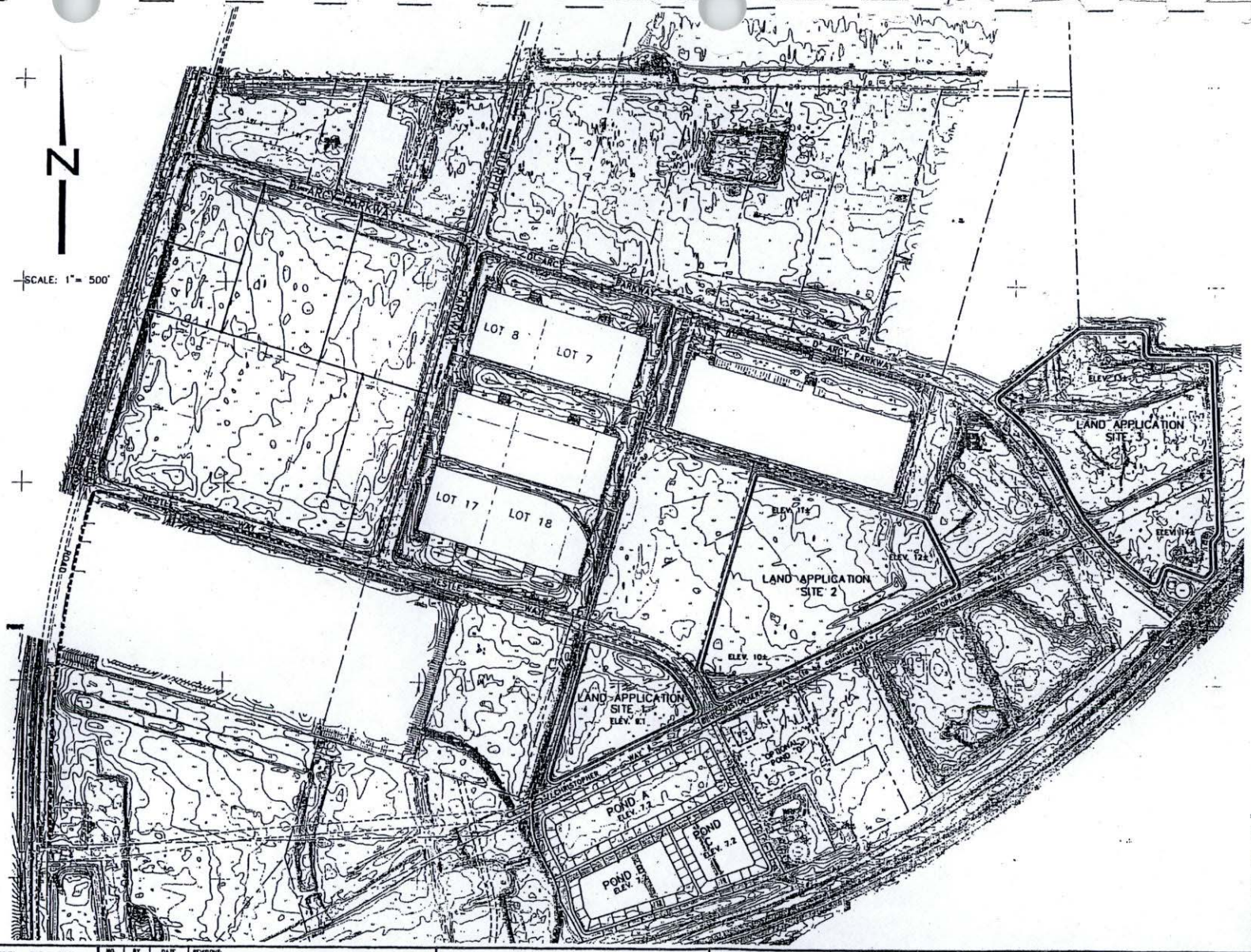
NOLTE
BEYOND ENGINEERING
1750 CREEKSIDE OAKS DR. SUITE 200, SACRAMENTO, CA 95833
916.641.1500 TEL 916.641.9222 FAX WWW.NOLTE.COM

PROCESS FLOW DIAGRAM FOR WRP NO.1
CROSSROADS COMMERCE CENTER
LATHROP, CA.

PREPARED FOR: CITY OF LATHROP DATE SUBMITTED: 4-10-01

SHEET NUMBER 2 OF 6 SHEETS

JOB NUMBER WC0442 04



POND	VOLUME, ac-ft
A	52.0
B	40.7
C	28.2
TOTAL	120.9

APPLICATION SITE	AREA, acres
1	6.0
2	18.2
3	19.6
TOTAL	43.8

LEGEND:

— — — PROPERTY LINE

10.8 ELEVATIONS

NOTES:

1. ALL PLANAMETRIC AND TOPOGRAPHIC DATA WAS COMPILED FROM AERIAL PHOTOGRAPHY TAKEN JULY 6, 1999.
2. BOUNDARY DATA TAKEN FROM RECORD MAPS AS NOTED ON BASE MAP.
3. EASEMENT DATA AS TAKEN FROM RECORD MAPS AND PRELIMINARY TITLE REPORTS PREPARED BY CHICAGO TITLE COMPANY.
4. UNDERGROUND UTILITY LOCATION AND SIZE INFORMATION TAKEN FROM PUBLIC BODY AND UTILITY COMPANY RECORDS. SIEGFRIED ENGINEERING, INC. IS NOT RESPONSIBLE FOR THEIR ACCURACY OR COMPLETENESS.

DATE: 05/09/01 TIME: 08:34
SERVER: SA31 SERVICE: PROJECT
PATH: H:\WO442\07\cad\
DRAWING NAME: FIGURE-3.DWG
PLOTTING VIEW: NONE
DESIGNER: WA PROJ MGR: C

NO.	BY	DATE	REVISIONS

CAUTION: The engineer preparing these plans will not be responsible for, or liable for, unauthorized changes to or uses of these plans. All changes to the plans must be in writing and must be approved by the preparer of these plans.

NOLTE
BEYOND ENGINEERING
1750 CREEKSIDE OAKS DR. SUITE 200, SACRAMENTO, CA 95833
916.641.1500 TEL 916.641.9222 FAX WWW.NOLTE.COM

FACILITY LAYOUT FOR WRP NO. 1
CROSSROADS COMMERCE CENTER
LATHROP, CA.

PREPARED FOR: CITY OF LATHROP

DATE SUBMITTED: 4-10-01

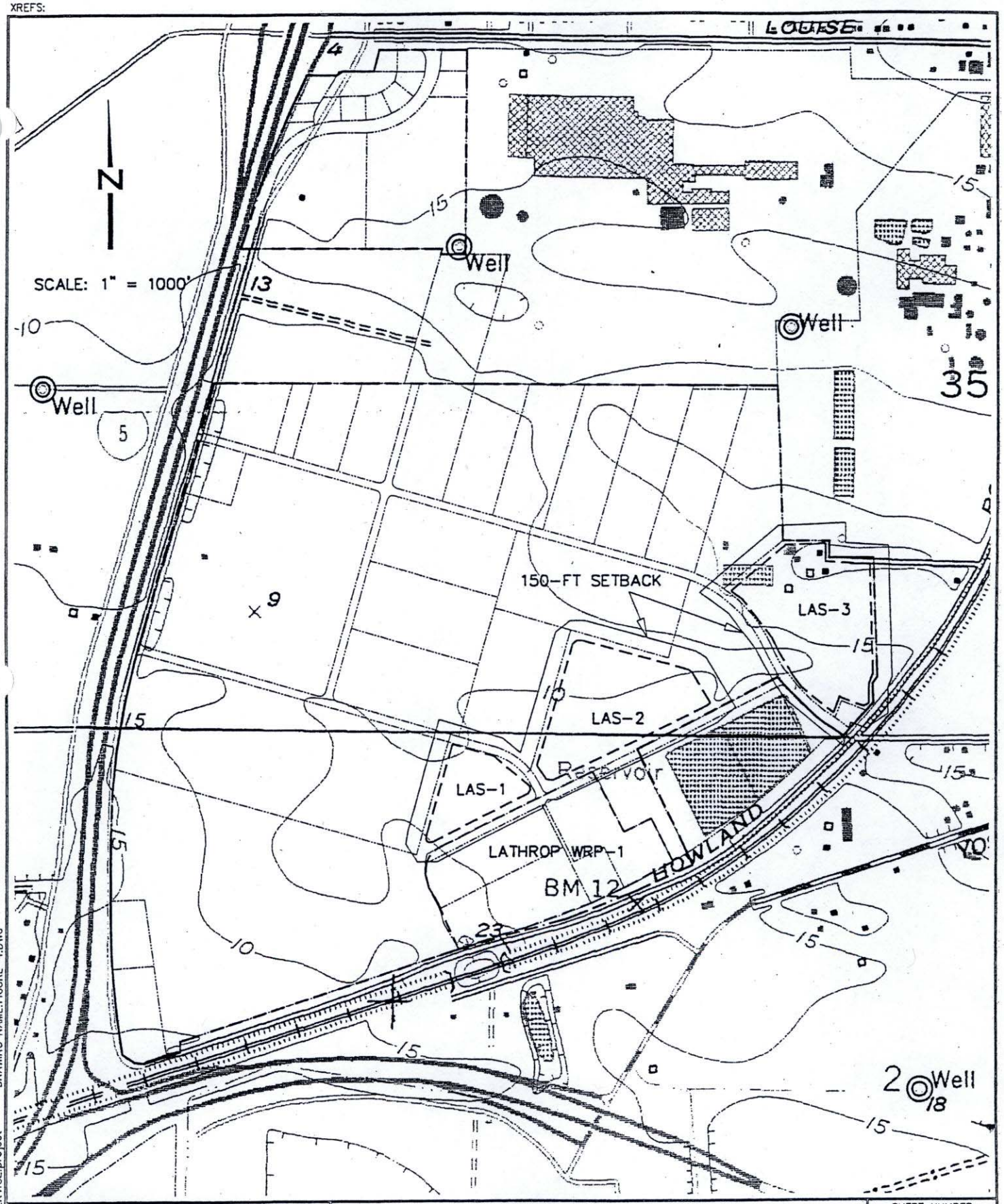
SHEET NUMBER 3 OF 6

SCALE
VERTICAL: 1"=
HORIZONTAL: 1"=

JOB NUMBER WC0442 0

DWG: WCAR.dwg, BOUNDARY.dwg, 3D2.dwg, 3D1.dwg, LONG.dwg

XREFS:



DATE:05/09/01
SERVICE:project
PATH:N:\WC0442\02\cadd\
DRAWING NAME:FIGURE-4.DWG
TIME:11:34
SERVER:sos1

NOLTE
BEYOND ENGINEERING

1750 CREEKSIDE OAKS DR. SUITE 200, SACRAMENTO, CA 95833
916.641.1500 TEL 916.641.9222 FAX WWW.NOLTE.COM

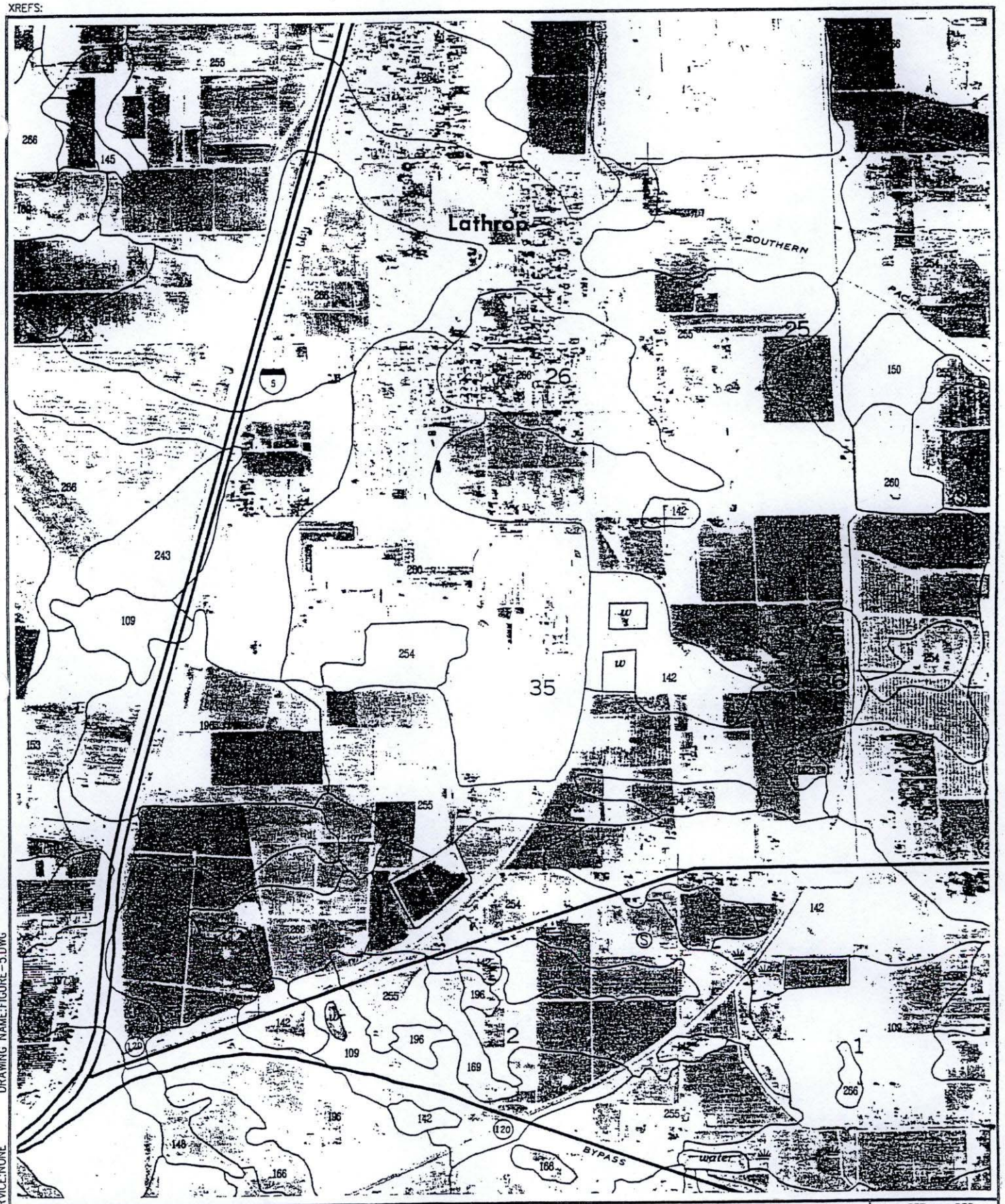
LOCATION OF WELLS
CROSSROADS COMMERCE CENTER
LATHROP, CALIFORNIA

PREPARED FOR: CITY OF LATHROP DATE SUBMITTED: 4-10-01

SHEET NUMBER 4 OF 6 SHEETS

JOB NUMBER WC0442 04

XREFS:



DATE:05/08/01
SERVICE:NONE

PATH:N:\Wc0442\02\cadd\
DRAWING NAME:FIGURE-5.DWG

TIME:14:08
SERVER:NONE

NOLTE

BEYOND ENGINEERING

1750 CREEKSIDE OAKS DR. SUITE 200, SACRAMENTO, CA 95833
916.641.1500 TEL 916.641.9222 FAX WWW.NOLTE.COM

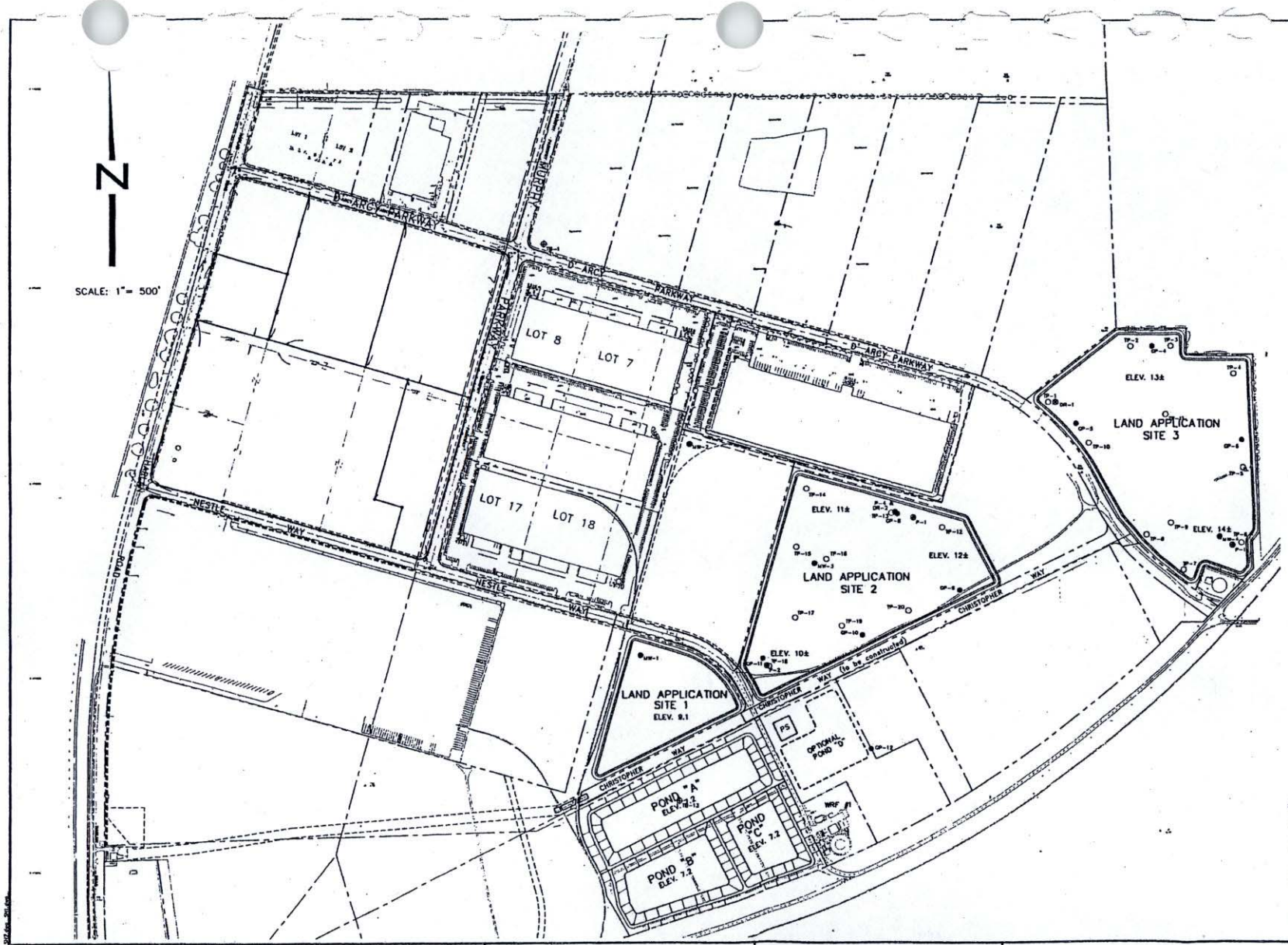
LOCATION OF SOIL TYPES
CROSSROADS COMMERCE CENTER
LATHROP, CALIFORNIA

PREPARED FOR: CITY OF LATHROP

DATE SUBMITTED: 4-10-01

SHEET NUMBER 5 OF 6 SHEETS

JOB NUMBER WC0442 04



LEGEND:

- PROPERTY LINE
- 10.5 ELEVATIONS
- P-1 PERCOLATION TESTS
- GP-12 GEOPROBE TESTS
- DR-1 DOUBLE RING PERCOLATION TESTS
- TB-13 TEST BORINGS
- MW-1 MONITORING WELLS
- TP-12 TEST PITS

NOTES:

1. ALL PLANAMETRIC AND TOPO GRAPHIC DATA WAS COMPILED FROM AERIAL PHOTOGRAPHY TAKEN JULY 6, 1999.
2. BOUNDARY DATA TAKEN FROM RECORD MAPS AS NOTED ON BASE MAP.
3. EASEMENT DATA AS TAKEN FROM RECORD MAPS AND PRELIMINARY TITLE REPORTS PREPARED BY CHICAGO TITLE COMPANY.
4. UNDERGROUND UTILITY LOCATION AND SIZE INFORMATION TAKEN FROM PUBLIC BODY AND UTILITY COMPANY RECORDS. SIEGFRIED ENGINEERING, INC. IS NOT RESPONSIBLE FOR THEIR ACCURACY OR COMPLETENESS.

DATE: 03/09/01 TIME: 08:18
SERVER: SLS1 SERVICE: PROJECT
PATH: N:\WO44-27\07\model\
DRAWING NAME: FIG1BF-8.DWG
PLOTTING VIEW: NONE
DESIGNER: WA PROJ MGR: JC

NO.	BY	DATE	REVISIONS:

CAUTION: The engineer preparing these plans will not be responsible for, or liable for, unauthorized changes to or uses of these plans. All changes to the plans must be in writing and must be approved by the preparer of these plans.

NOLTE
BEYOND ENGINEERING
1750 CREEKSIDE OAKS DR. SUITE 200, SACRAMENTO, CA 95833
916.641.1500 TEL 916.641.9222 FAX WWW.NOLTE.COM

SOIL AND GROUNDWATER TESTS
CROSSROADS COMMERCE CENTER
LATHROP, CA.

PREPARED FOR: CITY OF LATHROP
DATE SUBMITTED: 4-10-01

SHEET NO. 6 OF 6
SCALE VERTICAL: HORIZONTAL:
JOB NO. WC044.

TABLE 1
SUMMARY OF WASTE DISCHARGE REQUIREMENTS FOR CITY OF LATHROP WATER RECYCLING PLANT NO. 1[a]

Constituent	Monthly average	Daily maximum
Biochemical Oxygen Demand, mg/L	30	60
Total Suspended Solids, mg/L	30	60
Settleable Solids, mL/L	0.2	0.5
Total Nitrogen as N, mg/L	10	-

[a] Values from Waste Discharge Requirements Board Order No. 94-198.

TABLE 2

SUMMARY OF WASTEWATER FLOW FOR CITY OF LATHROP WATER RECYCLING PLANT NO. 1[a]

	Wastewater flow by month and date, Mgal/d													
Date	Jan-00	Feb-00	Mar-00	Apr-00	May-00	Jun-00	Jul-00	Aug-00	Sep-00	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01
1	0.041	0.063	0.059	0.069	0.027	0.073	0.089	0.096	0.090	0.028	0.080	0.114	0.047	0.106
2	0.020	0.043	0.066	0.030	0.067	0.082	0.085	0.078	0.098	0.022	0.070	0.144	0.038	0.098
3	0.027	0.049	0.067	0.022	0.050	0.079	0.040	0.110	0.039	0.110	0.063	0.040	0.091	0.130
4	0.033	0.045	0.079	0.061	0.075	0.042	0.082	0.091	0.030	0.075	0.107	0.047	0.102	0.053
5	0.044	0.056	0.045	0.099	0.066	0.038	0.038	0.090	0.025	0.108	0.026	0.102	0.104	0.045
6	0.053	0.025	0.042	0.071	0.068	0.075	0.067	0.057	0.083	0.104	0.029	0.083	0.107	0.117
7	0.052	0.025	0.057	0.088	0.032	0.086	0.097	0.041	0.096	0.099	0.098	0.119	0.077	0.089
8	0.052	0.051	0.137	0.073	0.034	0.077	0.101	0.101	0.091	0.035	0.068	0.012	0.041	0.105
9	0.027	0.063	0.088	0.028	0.065	0.076	0.054	0.111	0.127	0.024	0.138	0.112	0.092	0.108
10	0.022	0.058	0.060	0.026	0.069	0.068	0.027	0.108	0.059	0.079	0.117	0.061	0.079	0.083
11	0.047	0.048	0.071	0.085	0.070	0.041	0.074	0.103	0.019	0.078	0.098	0.048	0.074	0.047
12	0.061	0.064	0.039	0.084	0.069	0.029	0.082	0.094	0.080	0.077	0.044	0.093	0.091	0.034
13	0.069	0.030	0.031	0.069	0.053	0.076	0.078	0.040	0.074	0.079	0.034	0.141	0.138	0.091
14	0.069	0.033	0.073	0.070	0.027	0.071	0.086	0.029	0.103	0.081	0.096	0.113	0.052	0.104
15	0.071	0.051	0.075	0.090	0.022	0.066	0.099	0.095	0.102	0.059	0.101	0.100	0.047	0.063
16	0.048	0.074	0.080	0.032	0.061	0.073	0.046	0.094	0.113	0.040	0.110	0.140	0.062	0.159
17	0.026	0.065	0.074	0.033	0.063	0.068	0.044	0.084	0.041	0.078	0.115	0.063	0.089	0.114
18	0.033	0.066	0.105	0.062	0.072	0.028	0.107	0.078	0.029	0.070	0.113	0.048	0.089	0.042
19	0.044	0.064	0.047	0.080	0.075	0.022	0.102	0.074	0.099	0.110	0.039	0.092	0.103	0.037
20	0.041	0.031	0.034	0.068	0.080	0.073	0.089	0.026	0.069	0.130	0.027	0.105	0.100	0.051
21	0.054	0.042	0.074	0.078	0.037	0.088	0.096	0.028	0.092	0.099	0.099	0.098	0.049	0.103
22	0.061	0.037	0.080	0.072	0.034	0.077	0.108	0.095	0.093	0.035	0.098	0.105	0.037	0.098
23	0.027	0.063	0.081	0.036	0.067	0.078	0.048	0.090	0.113	0.034	0.109	0.010	0.100	0.103
24	0.035	0.081	0.078	0.025	0.078	0.104	0.045	0.092	0.041	0.099	0.030	0.046	0.083	0.104
25	0.065	0.114	0.093	0.071	0.118	0.039	0.094	0.092	0.035	0.076	0.063	0.035	0.085	0.042
26	0.068	0.079	0.037	0.075	0.055	0.032	0.094	0.119	0.130	0.102	0.045	0.024	0.088	0.043
27	0.050	0.053	0.032	0.074	0.067	0.072	0.094	0.049	0.095	0.079	0.030	0.077	0.120	0.112
28	0.043	0.023	0.082	0.065	0.028	0.085	0.093	0.027	0.129	0.096	0.128	0.105	0.055	0.080
29	0.057	0.069	0.089	0.071	0.024	0.094	0.099	0.089	0.101	0.041	0.110	0.098	0.035	-
30	0.040	-	0.081	0.027	0.022	0.093	0.045	0.077	0.083	0.028	0.097	0.107	0.091	-
31	0.025	-	0.103	-	0.051	-	0.037	0.103	-	0.062	-	0.058	0.108	-
Avg.	0.045	0.054	0.070	0.061	0.056	0.067	0.075	0.079	0.079	0.072	0.079	0.082	0.080	0.084

[a] Values provided by City of Lathrop Water Recycling Plant No. 1.

TABLE 3
SUMMARY OF EFFLUENT WASTEWATER QUALITY FOR CITY OF LATHROP WATER RECYCLING PLANT NO. 1[a]

Date	BOD, mg/L	TDS, mg/L	TSS, mg/L	TN, mg/L	pH
Jan-00	2.2	1100	15.1	1.6	7.1
Feb-00	2.6	1200	14.6	2.1	7.1
Mar-00	1.0	1500	6.5	1.0	7.1
Apr-00	1.8	1400	6.5	1.0	7.0
May-00	3.2	1200	12.0	2.4	7.1
Jun-00	2.6	1200	9.5	1.0	7.1
Jul-00	7.8	1300	13.5	3.6	7.1
Aug-00	4.3	1300	9.6	3.2	7.1
Sep-00	1.6	1200	5.3	2.3	7.0
Oct-00	1.3	1100	4.0	5.8	7.0
Nov-00	1.3	1300	4.8	2.9	7.3
Dec-00	2.9	-	7.0	8.1	-
Jan-01	6.8	1200	10.0	10.3	7.7
Feb-01	2.6	-	7.9	4.4	7.6
Avg.	3.0	1250	9.0	3.6	7.2

[a] Effluent wastewater quality average values provided by City of Lathrop Water Recycling Plant No. 1. For values below the detection limit, a value equal to one half the detection limit was used to determine averages.

TABLE 4
ESTIMATED FUTURE EFFLUENT TOTAL DISSOLVED SOLIDS CONCENTRATIONS FOR CITY OF LATHROP WATER RECYCLING PLANT NO. 1

	TDS concentration, mg/L	
Wastewater flow, gal/d	Without pretreatment	With pretreatment
75,000	1250	700
100,000	1113	700
125,000	1030	700
150,000	975	700
175,000	936	700
200,000	906	700
225,000	883	700
250,000	865	700

Industrial TDS concentration before pretreatment, mg/L:	1250
Pretreatment TDS limit, mg/L:	700

TABLE 5
WASTEWATER STORAGE POND INFORMATION FOR CITY OF LATHROP WATER RECYCLING PLANT NO. 1

	Storage pond water depth, ft				
Parameter	0.0	3.0	6.0	9.0	12.0
POND A					
Water surface area[a], ft^2	151,351	169,605	188,369	207,641	227,422
Water volume[b], ft^3	0	481,435	1,018,396	1,612,410	2,265,005
POND B					
Water surface area, ft^2	120,541	133,766	147,500	161,743	176,496
Water volume, ft^3	0	381,460	803,359	1,267,224	1,774,583
POND C					
Water surface area, ft^2	80,795	91,114	101,941	113,278	125,124
Water volume, ft^3	0	257,863	547,446	870,275	1,227,878
ALL PONDS					
Water surface area, ft^2	352,687	394,485	437,810	482,662	529,042
Water volume, ft^3	0	1,120,758	2,369,200	3,749,909	5,267,465
Est. water surface area[c], ft^2	352,855	394,194	437,774	482,944	528,920
Est. water depth[d], ft^3	0.0	3.0	6.0	9.0	12.0

Equation coefficient	c_0	c_1	c_2
Est. water surface area	3.53E+05	3.78E-02	-8.34E-10
Est. water depth	1.87E-02	2.73E-06	-8.66E-14

[a] Water surface areas obtained from pond AutoCAD drawings using 9.0-ft setbacks from pond floor (berm interior side slope equals 3H:1V, so 3.0 ft depth corresponds to 9.0 ft horizontally).

[b] Pond water volume divided into 3.0-ft depth sections. Volume at given depth equals sum of section volumes (each section volume equals the average of the section top and bottom areas, times depth of 3.0 ft).

[c] Total water surface area estimated as a quadratic function of the total pond water volume ($A = c_0 + c_1*V + c_2*V^2$). Equation coefficients were determined by least-squares analysis.

[d] Water depth estimated as quadratic function of volume ($D = c_0 + c_1*V + c_2*V^2$). Equation coefficients determined by least-squares analysis. Water depth assumed to be the same in all ponds.

TABLE 10
NORMAL-YEAR WATER BALANCE FOR CITY OF LATHROP LAND APPLICATION SYSTEM

			Storage ponds								Application area				
	Precip.,	ET,	Inflow, ac-in		Outflow, ac-in		Volume, ac-in		Depth,	Area,	Percolation, in			Net ET,	Applied
Month	in	in	WW	Precip.	Evap.	WW	Change	Net	ft	ac	Natural	Applied	Total	in	WW, in
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Jan	3.12	0.91	285	44	8	23	299	698	6.4	10.2	2.21	0.52	2.73	0.00	0.52
Feb	2.66	1.71	258	38	17	66	212	910	8.1	10.8	0.96	1.51	2.47	0.00	1.51
Mar	1.74	3.42	285	25	37	194	80	990	8.7	11.0	0.00	2.73	2.73	1.69	4.42
Apr	0.94	5.05	276	13	55	296	-62	928	8.2	10.8	0.00	2.65	2.65	4.11	6.76
May	0.84	6.42	285	12	69	364	-136	792	7.1	10.4	0.00	2.73	2.73	5.58	8.32
Jun	0.15	7.33	276	2	77	431	-229	563	5.2	9.8	0.00	2.65	2.65	7.19	9.83
Jul	0.03	7.99	285	0	78	468	-261	302	2.9	9.0	0.00	2.73	2.73	7.96	10.69
Aug	0.05	7.06	285	1	64	427	-204	98	1.0	8.4	0.00	2.73	2.73	7.01	9.74
Sep	0.17	5.13	276	2	43	333	-98	0	0.0	8.1	0.00	2.65	2.65	4.96	7.61
Oct	0.71	3.29	285	10	27	233	36	36	0.4	8.2	0.00	2.73	2.73	2.58	5.31
Nov	1.30	1.59	276	19	13	129	153	189	1.9	8.7	0.00	2.65	2.65	0.29	2.94
Dec	1.59	0.90	285	23	8	90	211	400	3.8	9.3	0.69	2.05	2.73	0.00	2.05
Total	13.31	50.81	3360	189	497	3053	0	-	-	-	3.86	28.33	32.19	41.36	69.70

Wastewater flow, gal/d:	250,000
Total pond catchment area, ac:	14.2
Application area, ac:	43.8
Hydraulic conductivity, in/hr:	0.06
Safety factor, percent:	6.1
Maximum pond storage, ac-ft:	82.5

(1) Water balance begins in October (storage ponds are empty at end of September).
(2) Average monthly precipitation data from 1988 to 2000 from CIMIS station at Manteca, CA.
(3) Average monthly evapotranspiration data from 1988 to 2000 from CIMIS station at Manteca, CA.
(4) Wastewater inflow equals daily wastewater flow times days per month.
(5) Precipitation inflow equals precipitation (2) times total pond catchment area (area within pond crest for all three ponds).
(6) Evaporation outflow equals evapotranspiration (3) times pond water surface area (11) from previous month.
(7) Wastewater outflow equals applied wastewater (16) times application area.
(8) Volume change equals WW inflow + precipitation inflow - evaporation outflow - WW outflow.
(9) Net volume equals running total of volume changes (8), beginning in October.
(10) Depth of pond water estimated as quadratic function of net volume (9). Depth assumed to be the same in all ponds.
(11) Total pond water surface area estimated as quadratic function of net volume (9).
(12) Natural percolation equals precipitation (2) - evapotranspiration (3); zero when negative.
(13) Applied water percolation equals total percolation - natural percolation.
(14) Total application equals safety factor times hydraulic conductivity times 24 hrs times days per month, or natural percolation (12), whichever is greater.
(15) Net ET equals evapotranspiration (3) - precipitation (2); zero when negative.
(16) Applied wastewater equals applied percolation (13) + net ET (15).

TABLE 11
ESTIMATED BOD, TN, AND TDS LOADING RATES FOR CITY OF LATHROP LAND APPLICATION SYSTEM

Month	Applied WW depth, in	Loading for each month, lb/ac			
		Current & future		Current	Future
		BOD	TN	TDS	TDS
Jan	0.52	0.4	0.4	147	83
Feb	1.51	1.0	1.2	428	240
Mar	4.42	3.0	3.6	1253	701
Apr	6.76	4.6	5.5	1914	1072
May	8.32	5.7	6.8	2356	1320
Jun	9.83	6.7	8.0	2785	1560
Jul	10.69	7.3	8.7	3028	1696
Aug	9.74	6.6	7.9	2760	1546
Sep	7.61	5.2	6.2	2155	1207
Oct	5.31	3.6	4.3	1504	842
Nov	2.94	2.0	2.4	832	466
Dec	2.05	1.4	1.7	580	325
Total	69.70	47.4	56.9	19,741	11,055

BOD concentration[a], mg/L:	3.0
TN concentration[b], mg/L:	3.6
TDS concentration (current)[c], mg/L:	1250
TDS concentration (future)[d], mg/L:	700
Normal-year percolation, in/yr:	32.2
Estimated percolate TDS (current WW TDS), mg/L:	2706
Estimated percolate TDS (future WW TDS), mg/L:	1516

[a] Average effluent BOD concentration for Lathrop WRP-1 during the last fourteen months (see Table 3).

[b] Average effluent TN concentration for Lathrop WRP-1 during the last fourteen months (see Table 3).

[c] Average effluent TDS concentration for Lathrop WRP-1 during the last fourteen months (see Table 3).

[d] Estimated future TDS concentration based on TDS reductions due to implementation of industrial source control. Existing groundwater TDS is 320 mg/L, and expected maximum domestic minerals pick-up is 380 mg/L, for a total effluent TDS of 700 mg/L.

APPENDIX B
BIOLOGICAL RESOURCE TABLES

TABLE B-1
VASCULAR PLANTS ENCOUNTERED AT THE
CROSSROADS WASTEWATER STORAGE AND DISPOSAL PROJECT SITE

Scientific Name	Common Name
Amsinckia menziesii var. menziesii	Small-flowered fiddleneck
Bromus diandrus	Ripgut brome
Calandrina ciliata	Red maids
Camissonia contorta	Contorted primrose
Capsella bursa-pastoris	Shepherd's-purse
Carduus pycnocephalus	Italian thistle
Centaurea solstitialis	Star thistle
Cerastium glomeratum	Mouse-eared chickweed
Chamomilla suaveolens	Pineapple weed
Conyza Canadensis	Canadian horseweed
Coronopus didymus	Swinecress
Crassula connata	Pigmyweed
Epilobium brachycarpum	Tall annual willowherb
Erodium botrys	Long-beaked stork's-bill
Erodium cicutarium	Red-stemmed filaree
Erodium moschatum	White-stemmed filaree
Gnaphalium luteo-album	Weedy cudweed
Helianthus annuus	Common sunflower
Heliotropium curassavicum	Heliotrope
Heterotheca grandiflora	Telegraph weed
Hirschfeldia incana	Mediterranean hoary-mustard
Hordeum murinum ssp. *leoporinum*	Hare barley
Lamium amplexicaule	Giraffehead
Lepidium latifolium	Broad-leaved pepper-grass
Malva neglecta	Common mallow
Melilotus indica	Yellow sweet-clover
Mimulus guttatus	Common monkey flower
Plagiobothrys canescens	Valley popcorn flower
Poa annua	Annual blue-grass
Polygonum arenastrum	Knotweed
Salsola tragus	Russian thistle
Senecio vulgaris	Groundsel
Sisymbrium irio	London rocket
Sonchus asper	Sow thistle
Spergularia rubra	Ruby sandspurry
Stellaria media	Chickweed
Urtica dioica ssp. *holosericea*	Hoary nettle
Urtica urens	Burning nettle

Scientific Name	Common Name
Veronica persica	Persian speedwell
Vulpia myuros var. hirsuta	Foxtail fescue

TABLE B-2
WILDLIFE SPECIES OBSERVED IN THE PROJECT VICINITY

Species Name	Common Name
BIRDS	
Anas platyrhynchos	Mallard
Buteo jamaicensis	Red-tail hawk
Buteo swainsoni	Swainson's hawk
Circus cyanaus	Northern harrier
Pica nuttalli	Yellow-billed magpie
Zenaida macroura	Mourning dove
Cathartes aura	Turkey vulture
Himantopus mexicanus	Black-necked stilt
Charadrius vociferus	Killdeer
Mimus polyglottos	Northern mockingbird
Corvus brachyrhynchos	American crow
Pica nuttalli	Yellow-billed magpie
Zonotrichia leucophrys	White-crowned sparrow
Sturnus vulgaris	European starling
REPTILES	
Sceloporus occidentalis	western fence lizard
MAMMALS	
Spermophilus beecheyi	Ground squirrels
Lepus californicus	black-tailed hare
Thomomys mazama	western pocket gopher

TABLE B-3
SPECIAL-STATUS PLANT SPECIES WITH POTENTIAL TO OCCUR IN THE PROJECT VICINITY

Species name Common name	Listing status			Ecological information	Occurrence in project area
	Fed.	State	CNPS R-E-D		
Amsinckia grandiflora Large-flowered fiddleneck	FE		1B 3-3-3	Annual herb, flowers April-May, cis-montane woodland, Valley and foothill grasslands.	Not observed. Not expected to occur in the project area due to a lack of suitable habitat and high disturbance (disced).
Astragalus tener var. tener Alkali milk-vetch			1B 3-2-3	Annual herb, flowers Mar.-Jun., occurs in playas, valley and foothill grasslands, and vernal pools on adobe clay and alkaline soils.	Not observed. Not expected to occur in the project area due to a lack of suitable habitat.
Atriplex depressa Brittlescale			1B 2-2-3	Annual herb, flowers May-Oct., occurs in chenopod scrub and valley and foothill grasslands on alkaline or clay soils.	Not observed. Not expected to occur in the project area due to a lack of suitable habitat.
Blepharizonia plumosa ssp. Plumosa Big tarplant			1B 3-3-3	Annual herb, flowers Jul.-Oct., occurs in dry valley and foothill grasslands on clay to clay-loam soils.	Not observed. Not expected to occur in the project area due to a lack of suitable habitat.
Carex camosa Bristly sedge			2 3-3-1	Perennial herb, flowers May-September, occurs in marshes and swamps.	Not observed. Not expected to occur in the project area due to a lack of suitable habitat.
Cirsium crassicaule Slough thistle			1B 3-3-3	Annual/perennial herb, flowers May-August, occurs in marshes and	Not observed. Not expected to occur in the project area due to a lack of suitable habitat.

Species name Common name	Listing status			Ecological information	Occurrence in project area
	Fed.	State	CNPS R-E-D		
				swamps, chenopod scrub, and riparian scrub.	
Eryngium racemosum Delta button-celery	FSC	CE	1B 2-3-3	Annual/perennial herb, flowers Jun.-Aug., occurs in vernally mesic depressions in riparian scrub.	Not observed. Not expected to occur in the project area due to a lack of suitable habitat.
Hibiscus lasiocarpus Rose-mallow			2 2-2-1	Perennial herb, flowers August-September. Occurs in freshwater marshes.	Not observed. Not expected to occur in the project area due to a lack of suitable habitat.
Lathyrus jepsonii var jepsonni Delta tule pea			1B 2-2-3	Flowers May-June. Occurs in freshwater and brackish swamps.	Not observed. Not expected to occur in the project area due to a lack of suitable habitat.
Legenere limosella Legenere	FSC		1B 2-3-3	Annual herb, flowers May-Jun., occurs in vernal pools.	Not observed. Not expected to occur in the project area, due to a lack of suitable habitat.
Lilaeopsis masonii Mason's lilaeopsis			1B 2-3-3	Perennial herb, flowers April-October. Occurs in marshes, swamps, and riparian scrub habitat.	Not observed. Not expected to occur, in the project area due to a lack of suitable habitat.
Trichocoronis wrightii var wrightii Wright's trichoronis			2 3-3-1	Annual herb, flowers May-September. Occurs in meadows, marsh, swamp, riparian forest, and alkaline vernal pool habitats.	Not observed. Not expected to occur in the project area due to a lack of suitable habitat.
Tropidocarpum capparideum Caper-fruited			2 3-3-1	Annual herb, flowers March-April. Occurs in Valley foothill grasslands	Not observed. Not expected to occur in the project area due to a lack of suitable habitat.

Species name Common name	Listing status			Ecological information	Occurrence in project area
	Fed.	State	Other		
					reduced due to regular discing and minimal ground squirrel activity.
Branta canadensis leucopareia Aleutian Canada goose	MNBMC	CSC	NASC	Winters in the project region. Forages in agricultural fields and open water habitats, including sewage treatment ponds.	Project will not adversely affect available habitat for this species.
Buteo swainsoni Swainson's hawk		CT	NASC	Breeds and nests in large trees in riparian and oak woodlands in the Central Valley. Forages for small mammals in grasslands and agricultural fields.	A foraging Swainson's hawk was observed in the project area. Reported to nest along Yosemite Road approximately 1.25 miles east of the project site (NDDB). No hawks were observed at the reported location during field surveys.
Coccyzus americanus occidentalis Western yellow-billed cuckoo	FE			Breeds and nests in riparian woodlands in Central Valley.	Not observed. Not expected to occur in the project area due to lack of suitable habitat.
Eremophila alpestris actia California horned lark		CSC		Year-round resident of open grasslands in Central Valley and foothills. Nests on ground and forages on insects and seeds.	Not observed. Marginal habitat occurs in the project area. Not expected to nest in the project area due to low habitat quality and regular disturbance (discing).
MAMMALS					
Eumops Perotis		CSC		Maternity colonies and roosts	Not observed. Not expected

Species name Common name	Listing status			Ecological information	Occurrence in project area
	Fed.	State	Other		
frontale California horned lizard		FP		and sparsely vegetated scrub, and a variety of other habitats in the Coast Ranges and western San Joaquin Valley.	to occur in the project area due to the highly disturbed nature of the project site (discing) and inappropriate soil conditions in some parcels.
Thamnophis gigas Giant garter snake	FT	CT FP		Occurs in aquatic habitats, such as sloughs, wetlands, irrigated agricultural lands, and streams with dense vegetative cover, especially bulrush and cattails. Currently known from Fresno to Butte Counties.	Not observed. Not expected to occur in the project area due to lack of suitable aquatic habitat.
BIRDS					
Agelaius tricolor Tricolored blackbird	FSC MN BM C	CSC		Nests in large colonies preferring dense vegetation near open water. Several nesting colonies reported in wetlands along San Joaquin River. Forages in a variety of grassland and agricultural habitats.	Not observed. No nesting habitat is available at the project site. Some parcels could provide potential foraging habitat.
Athene cunicularia hypugea Western burrowing owl	FSC MN MB C	CSC	NAS C	Nests in small mammal burrows, culverts, or other openings in grasslands and other low-growing vegetation.	No burrowing owls or evidence of their presence were observed during field surveys. Portions of the project area could be considered potential habitat; however, habitat values are

Species name Common name	Listing status			Ecological information	Occurrence in project area
	Fed.	State	Other		
				vicinity.	
AMPHIBIANS					
Ambystoma californiense California tiger salamander	FC	CSC FP		Occurs in annual grasslands and understory of valley-foothill hardwood communities. Uses small mammal burrows for refuge and needs standing water source for breeding.	Not observed. Not expected to occur in the project area due to lack of suitable breeding habitat.
Rana aurora draytonii California red-legged frog	FT	CSC FP		Occurs in seasonal or perennial shallow pools, stock ponds and streams throughout Coast Ranges west of the project area.	Not observed. Not expected to occur in the project area due to lack of suitable aquatic habitat.
Scaphiopus hammondii Western spadefoot toad	FSC	CSC FP		Occurs throughout the Central Valley and adjacent foothills. Breeds in shallow, seasonal depressions, such as vernal pools.	Not observed. Not expected to occur in the project area due to lack of suitable breeding habitat
REPTILES					
Clemmys marmorata pallida Southwestern pond turtle	FSC	CSC FP		Occurs throughout the Central Valley in perennial waters with basking sites. Nests up to 0.5 km from water.	Not observed. Not expected to occur in the project area due to lack of suitable aquatic habitat.
Masticophis flagellum ruddocki California coachwhip (San Joaquin whipsnake)	FSC	CSC FP		Occurs in open habitats, such as grasslands, in the San Joaquin Valley. Feeds on small animals.	Not observed. Not expected to occur in the project area due to the highly disturbed nature of the site (discing).
Phyrnosoma coronatum	FSC	CSC		Occurs in sandy, dry washes	Not observed. Not expected

TABLE B-4
SPECIAL-STATUS WILDLIFE SPECIES WITH POTENTIAL TO OCCUR IN THE PROJECT VICINITY

Species name Common name	Listing status			Ecological information	Occurrence in project area
	Fed.	State	Other		
INVERTEBRATES					
Branchinecta conservatio Conservancy fairy shrimp	FE			Occurs in vernal pools and other ephemerally ponded areas, including storm run-off ditches, in the Central Valley.	Not observed. Not expected to occur in the project area due to a lack of suitable habitat, no wetland areas.
Branchinecta longiantenna Longhorn fairy shrimp	FE			Occurs in vernal pools and other ephemerally ponded areas, including storm run-off ditches, in the Central Valley.	Not observed. Not expected to occur in the project area due to a lack of suitable habitat, no wetland areas.
Branchinecta lynchi Vernal pool fairy shrimp	FT			Occurs in vernal pools and other ephemerally ponded areas, including storm run-off ditches, in the Central Valley.	Not observed. Not expected to occur in the project area due to a lack of suitable habitat, no wetland areas.
Lepidurus packardi Vernal pool tadpole shrimp	FE			Occurs in vernal pools and other ephemerally ponded areas, including storm run-off ditches, in the Central Valley.	Not observed. Not expected to occur in the project area due to a lack of suitable habitat, no wetland areas.
Desmocerus californicus dimorphus Valley elderberry longhorn beetle	FT			Occurs in the Central Valley and lower foothills on blue elderberry (Sambucus mexicana) in riparian scrub and woodlands. Reported to occur along Tuolumne River, upstream and downstream of project area, and along San Joaquin River in the project	No elderberry plants were observed within the project area. Six elderberry shrubs observed in abandoned ponds east of Parcel A. However, they are not expected to be affected by project actions.

Species name Common name	Listing status			Ecological information	Occurrence in project area
	Fed.	State	CNPS R-E-D		
tripocarpum				on alkali soil.	

Sources: CDFG 1999, 2001a, 2001c, Skinner and Pavlik 1994, USFWS 1999, Hickman 1993.

*Listing Status Codes:
Federal:
FE = Endangered
FSC = considered a Federal Special Concern species by the USFWS;

State:
CE = Endangered

California Native Plant Society (CNPS) (Skinner and Pavlik 1994):
CNPS List Codes:
List 1B = Plants rare and endangered in California and elsewhere; List 2 = Plants rare, threatened, or endangered in California, but more common elsewhere
R-E-D Codes:
R = Rare: 1= Rare, but found in sufficient numbers and distributed widely enough that the potential for extinction is low at this time; 2 = Distributed in a limited number of occurrences, occasionally more if each occurrence is small; 3 = Distributed in one to several highly restricted occurrences, or present in such small numbers that it is seldom reported.
E = Endangerment: 1 = Not endangered; 2 = Endangered in a portion of its range; 3 = Endangered throughout its range.
D = Distribution: 1 = More or less widespread outside of California; 2 = Rare outside of California; 3 = Endemic to California.

Species name Common name	Listing status			Ecological information	Occurrence in project area
	Fed.	State	Other		
californicus California mastiff bat				in rock outcrops, buildings, cliff faces, and tunnels.	to breed or roost in the project area due to lack of suitable habitat. May occasionally forage in the vicinity.
Neotoma fuscipes riparia Riparian woodrat	FPE	CSC		Occurs in Sierra Nevada foothills and Coast Ranges. Generally absent from Central Valley. Prefers forested habitats.	Not observed. Not expected to occur in the project area due to lack of suitable habitat.
Vulpes vulpes mutica San Joaquin kit fox	FE	CT		Forages widely in annual grasslands and agricultural areas of the western San Joaquin Valley. Requires friable, sandy soils for burrowing.	No kit fox or evidence of their presence were observed during field surveys. Not considered to occur in the project area due to low habitat quality and regular disturbance (discing).
Perognathus inornatus inornatus San Joaquin pocket mouse	FSC			Occurs throughout the San Joaquin Valley in grasslands and scrub with fine textured soils. Forages on seeds.	Not observed in the project area nor reported to occur in the vicinity. Not likely to occur due to highly disturbed nature of the project site (disced).

Sources: CDFG 1999, 2001b; Zeiner et al. 1988, 1990a, 1990b.

*Listing Status Codes:
Federal:
FE = Endangered; FT = Threatened; FPE = Proposed Endangered; FC = candidate pursuant to the Federal Endangered Species Act of 1973, as amended;
FSC = considered a Federal Special Concern species by the USFWS;
MNBMC = considered a Migratory Nongame Birds of Management Concern by the USFWS.

State:
CT = Threatened
CSC = considered a California Species of Concern by the CDFG;
FP = a California Fully Protected species that may not be taken without a take permit.

Other:
NASC = National Audubon Society Special Concern species

APPENDIX C
INITIAL STUDY

ENVIRONMENTAL EVALUATION FORM

GENERAL PROJECT INFORMATION:

1. Project Title: Crossroads Industrial Park, Amendment of Development Agreement and Revised Sewage Disposal System

2. Lead Agency Name and Address: City of Lathrop
Public Works Department
16775 Howland Road

3. Contact Person and Phone Number: Ramon Batista, 209-858-02860

4. Project Location: Crossroads Industrial Park, east of I-5 and north of SR120, Lathrop California

5. Project Sponsor's Name and Address: AEW/Catlin Properties
3620 Fair Oaks Boulevard, Suite 150
Sacramento California 95864

6. General Plan Designation: Commercial, Industrial and Service Commercial

7. Zoning: CH Highway Service Commercial, IG General Industrial

8. Description of Project: The proposed project involves an amendment of the existing Development Agreement for the Crossroads Industrial Park to extend the term of the agreement, provide a mechanism for remedial improvements to the City's existing wastewater plant (WRP-1), establish improved financial mechanisms for City/Applicant project management, clarify timing of required transportation improvements and delineate other aspects of the City/Applicant relationship. The project would also include construction and operation of a new system for disposal of treated secondary wastewater effluent to land, and improvement of the facilities at WRP-1 to provide tertiary sewage treatment.

9. Surrounding Land Uses and Setting: The Crossroads Industrial Park is predominantly industrial in nature. The development is surrounded by major transportation facilities including the Southern Pacific Railroad, I-5 and Louise Avenue.

10. Other public agencies whose approval is required: Regional Quality Control Board for wastewater disposal.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Agriculture Resources	■ Air Quality
■ Biological Resources	■ Cultural Resources	☐ Geology /Soils
☐ Hazards & Hazardous Materials	■ Hydrology/Water Quality	☐ Land Use/Planning
☐ Mineral Resources	☐ Noise	☐ Population / Housing
☐ Public Services	☐ Recreation	■ Transportation/Traffic
■ Utilities/Service Systems	■ Mandatory Findings of Significance ☐	

LEAD AGENCY DETERMINATION:

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment and a NEGATIVE DECLARATION will be prepared.

☐ I find that although the proposed project could have a significant effect on the environment there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent . A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

■ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment because all potentially significant effects (a) have been analyzed adequately in an earlier EIR pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Ramon Batista, Assistant Manager
City of Lathrop

for Ramon Batista

Signature

6/12/01

Date

EVALUATION OF ENVIRONMENTAL IMPACTS

The foregoing environmental determination is based on the evaluation of the potential environmental effects of the proposed project, as documented in the following checklist and supporting documentation. The checklist has been prepared in accordance with the following requirements:

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose) sensitive receptors to pollutants, based on a project-specific screening analysis).

   Note: Explanations for each checklist answer is provided in Chapter 4.0 of the accompanying Supplemental EIR.

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) "Less Than Significant With Mitigation Incorporation" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, "Earlier Analyses," may be cross-referenced) .

5) Earlier analyses may be used where, pursuant to tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or Negative Declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

   a) Earlier Analysis Used. Identify and state where the analysis(es) are available for review.

   b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of, and adequately analyzed in, an earlier document pursuant to applicable legal standards; and state whether such effects were addressed by mitigation measures based on the earlier analysis.

   c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Incorporation", describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

Note: This Initial Study and the accompanying Supplemental EIR are tiered to previous environmental analysis documents. These documents are described in detail in Section 1.2 of the Supplemental EIR.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8) This is only a suggested form, and lead agencies are free to use different formats.

9) The explanation of each issue should identify:

   a) the significance criteria or threshold, if any, used to evaluate each question; and

   b) the mitigation measure identified, if any, to reduce the impact to less than significance

I. AESTHETICS -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	■
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	■
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	■	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	■	☐

II. AGRICULTURE RESOURCES -- In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	■	☐
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	■
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	☐	☐	☐	■

III. AIR QUALITY -- Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable Air Quality Attainment Plan?	☐	☐	■	☐
b) Violate any air quality standard or contribute to an existing or projected air quality violation?	☐	☐	■	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	■	☐
e) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	■
f) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	■

IV. BIOLOGICAL RESOURCES -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Adversely impact, either directly or through habitat modifications, any endangered, rare, or threatened species, as listed in Title 14 of the California Code of Regulations (sections 670.2 or 670.5) or in Title 50, Code of Federal Regulations (sections 17.11 or 17.12)?	☐	■	☐	☐
b) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	■	☐	☐
c) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	☐	☐	☐	■
d) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	■
e) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	■
f) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	■

g) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	■

V. CULTURAL RESOURCES -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource?	☐	☐	☐	■
b) Cause a substantial adverse change in the significance of a unique archaeological resource (i.e., an artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it contains information needed to answer important scientific research questions, has a special and particular quality such as being the oldest or best available example of its type, or is directly associated with a scientifically recognized important prehistoric or historic event or person)?	☐	■	☐	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	■
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☐	■

VI. GEOLOGY AND SOILS -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	■
ii) Strong seismic ground shaking?	☐	☐	■	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	■	☐
iv) Landslides?	☐	☐	☐	■
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	■	☐
c) Be located on strata or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	■	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code, creating substantial risks to life or property?	☐	☐	☐	■
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	■

VII. HAZARDS AND HAZARDOUS MATERIALS -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	■	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	■	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	■
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	■
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	■
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	■
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	■
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	■

VIII. HYDROLOGY AND WATER QUALITY -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements?	☐	☐	■	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	■
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or	☐	☐	☐	■

siltation on- or off-site?

d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☐	■
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems?	☐	☐	■	☐
f) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	■
g) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	■
h) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	■	☐
i) Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	■

IX. LAND USE AND PLANNING -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Physically divide an established community?	☐	☐	☐	■
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	■
c) Conflict with any applicable habitat conservation plan or natural communities conservation plan?	☐	☐	☐	■

X. MINERAL RESOURCES -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource classified MRZ-2 by the State Geologist that would be of value to the region and the residents of the state?	☐	☐	☐	■
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	■

XI. NOISE -- Would the project result in:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	■	■
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	■
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	■	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the	☐	☐	■	☐

project?

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	■
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	■

XII. POPULATION AND HOUSING -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	■
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	■
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	■

XIII. PUBLIC SERVICES -- Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Fire protection?	☐	☐	■	☐
b) Police protection?	☐	☐	■	☐
c) Schools?	☐	☐	☐	■
d) Parks?	☐	☐	☐	■
e) Other public facilities?	☐	☐	■	☐

XIV. RECREATION	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	■
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	■

XV. **TRANSPORTATION/TRAFFIC** -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	☐	■	☐	☐
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	☐	☐	☐	■
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	■
d) Substantially increase hazards to a design feature (e g., sharp curves or dangerous intersections) or incompatible uses (e g, farm equipment)?	☐	☐	☐	■
e) Result in inadequate emergency access?	☐	☐	☐	■
f) Result in inadequate parking capacity?	☐	☐	☐	■
g) Conflict with adopted policies supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☐	■

XVI. **UTILITIES AND SERVICE SYSTEMS** -- Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	■	☐	☐
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	■	☐	☐
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	■	☐
d) Are sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	■	☐
e) Has the wastewater treatment provider which serves or may serve the project determined that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	■	☐	☐
f) Is the project served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	■	☐

g) Comply with federal, state. and local statutes and regulations related to solid waste?	☐	☐	■	☐

XVII. MANDATORY FINDINGS OF SIGNIFICANCE --	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	■	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	■	☐	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	■	☐

NARRATIVE EXPLANATION

The narrative explanation for the marks in the foregoing checklist are provided in Chapter 4.0 of the accompanying Supplemental EIR.

APPENDIX D
PREVIOUS EIR SUMMARY

SECTION III

SUMMARY OF PROJECT DESCRIPTION, ALTERNATIVES, ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

A. PROJECT DESCRIPTION

The 528-acre site is situated in the southern portion of the unincorporated community of Lathrop, approximately six miles south of Stockton and two miles west of Manteca. The project site is divided into two separate parcels. The northerly parcel, located at the southeast corner of Harlan Road/Interstate 5 and Louise Avenue, consists of 44 acres. The southerly parcel contains 484 acres and is bounded on the north by the E.R. Carpenter Company, the cogeneration facility site and the Libby Owens Ford glass plant, Interstate 5/Harlan Road to the west, Howland Road and the Southern Pacific Railroad to the south and the Simplot Chemical Company to the east. The proposed subdivision surrounds an existing pond in the southeastern portion of the property which will remain in the ownership of Libby Owens Ford. (Refer to Figures 1 and 2 in the text of the EIR.)

The northerly parcel is vacant and is presently planted in oats. The southerly parcel contains two residences and various ranch buildings associated with a former dairy operation. Approximately 475 acres are planted in sugar beets, oats and alfalfa. The site is flat with vegetation located mainly around the residences. Annual grasses and weeds dominate the uncultivated areas of the site. The site has seven soil types within it, three of which are classified as prime soil.

The project site is identified as Assessor's Parcel Number 195-270-56, 241-020-32 and 241-390-01.

The proposed project is to amend the Land Use/Circulation Element Map of the San Joaquin County General Plan. The proposed amendments would change the current land use designation of 44 acres located in the northwest quadrant of the property at the Harlan Road/Louise Avenue intersection from General Industrial to Highway Service; and change approximately 33.6 acres along the eastern side of Harlan Road and south of the E.R. Carpenter facility and the cogeneration facility site from General Industrial to Limited Industrial. The remaining portions of the site would remain as presently designated, General Industrial.

Concurrent with the amendment request is a request for two zone reclassifications to rezone the 44 acres from M-2 (General Manufacturing) to H-S (Highway Service) and to change the zoning of the 33.6 acres from M-2 to C-M (Commercial Manufacturing). The underlying project is a major subdivision to divide the 528 acres into the following:

54 parcels on 450 acres zoned M-2;
2 parcels on 44 acres zoned H-S; and
5 parcels on 33.6 acres zoned C-M.

This General Plan Amendment, Zoning Reclassification and Major Subdivision Application has been requested by Mr. John D'Arcy of Kearny Ventures, Ltd., applicant for this project. The site is owned by Libby Owens Ford with Mr. D'Arcy holding an option to purchase the property. (Refer to Figure 3 in the text of the EIR.)

The applicant has stated that if the project is approved he intends to develop the 44 acres fronting on Louise Avenue into a high quality, highway-oriented commercial development which would serve as the gateway to the Industrial Park along Harlan Road. The area fronting Louise Avenue and Harlan Road would be developed with a multi-storied hotel/motel, restaurants, meeting facilities, a service station, and fast food and retail establishments.

Extending south along Harlan Road, and south of the E.R. Carpenter site, the applicant proposes to provide smaller parcels for wholesale-retail outlets fronting on Harlan Road. These outlets would specialize in home building and improvement materials and equipment, services and supplies; specialized contractors offices, service offices, and maintenance and repair services of an assorted nature.

The bulk of the area to the east is intended to provide larger parcels at a minimum six and seven acres. These could be combined into 40, 50, 60-acre parcels or larger. The larger parcels are intended to provide adequate space with room to expand for major distribution centers for all types of material, from food stuffs and cold storage to manufactured goods of all types.

The applicant is proposing the use of CC&Rs to insure the on-going maintenance of exterior grounds and building maintenance. A park management committee will be appointed to enforce compliance of the CC&Rs. A landscaped mound would screen the parking areas.[2]

Project plans call for the demolition of the two existing residences and the outlying farm structures. It is proposed that Harlan Road at Louise Avenue would be realigned. The internal roadway system within the larger portion of the site calls for the extension of Vierra Road through the property and connecting with Harlan Road, south of the E.R. Carpenter site. Other internal streets are connected directly or indirectly with the Vierra Road extension. Access to the site would be provided by Louise Avenue, Harlan Road, Howland Road and Vierra Road.

The applicant has entered into an agreement with the City of Manteca for the provision of water and sewage treatment services. A sewer line would extend from the project site to the City of Manteca sewage disposal site, east of McKinley Avenue. The sewer system would include an on-site pumping station and an off-site force main to convey the sewage to the Manteca treatment plant. (Refer to discussion in Services Section.) As a part of the project, the applicant would also be responsible for providing terminal drainage, as well as participate in levee rehabilitation presently being conducted by Reclamation District 17. (Refer to discussion in Hazards Section.) The applicant would provide a storm drainage system with an on-site pumping station and an off-site force main discharging into the San Joaquin River.

B. ALTERNATIVES TO THE PROPOSED PROJECT

The following is a brief description of the four alternative development scenarios to the proposed project:

1. No Development: This alternative assumes that no future development activity on the site would occur. With the No Development alternative, present conditions would remain the same as they are presently.

2. Project in Conformance with General Plan (All General Industrial): Under this alternative, development of the entire site would proceed according to the present General Plan land use designation of General Industrial. No Highway Service or Commercial Manufacturing would be included in this alternative.

3. Modified Project (All Limited Industrial Uses): This alternative assumes development of the site under the General Plan Land Use designation of Limited Industrial and Zone Classification of Restricted Manufacturing. No Highway Service or Commercial Manufacturing uses would be included in this alternative.

4. Alternative Site: This alternative assumes development of the Highway Service component of the proposed project at an alternative location.

C. ENVIRONMENTAL IMPACTS AND MITIGATIONS

The following table presents a summary of the project's potentially significant environmental impacts and mitigation measures which would eliminate or reduce such impacts to a level of insignificance. The table also identifies significant impacts on the environment which cannot be mitigated to an acceptable level. Also included on this table is a summary of the impacts and mitigations identified for each of the four project alternatives.

The following definition is provided to help clarify the concept of Significant Effects, as required by the California Environmental Quality Act (CEQA), as amended. It is taken from the CEQA Guidelines, 1986.

"Significant Effect on the Environment" is defined in Section 15382 of the State CEQA Guidelines. It means:

> A substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and object of historic or aesthetic significance. An economic or social change by itself shall not be considered a significant effect on the environment. A social or economic change related to a physical change may be considered in determining whether the physical change is significant.

The significant unavoidable adverse impacts identified in an EIR (CEQA document) require the Lead Agency and each Responsible Agency to make a finding (CEQA Guidelines, Section 15091 and Public Resources Code, Section 21083 and 21087) for each significant unavoidable adverse impact, and a statement of overriding considerations (CEQA Guidelines, Section 15093) for the project, if approved.

The responsibility for implementing the mitigation measures has been identified throughout the summary. Many of the mitigation measures will require a follow up monitoring program to ensure the significant impacts have been mitigated to an acceptable level.

SECTION III

SUMMARY TABLE

Potentially Significant Impacts	Suggested Mitigation Measures	If implemented will impact be mitigated to an acceptable level?
PROPOSED PROJECT		
Land Use and Planning Policy		
1. Development of the project site would convert 528 acres of agricultural land, including approximately 130 acres of prime soil. This is considered an irreversible impact for which there is no effective mitigation.	In an effort to minimize the cumulative loss of agricultural land in the County, the Board of Supervisors may consider one or all of the following recommendations. (Board of Supervisors)	
	- Protect other existing farmlands of equivalent or better quality through the use of Williamson Act contracts.	No
	- Investigate other direct and indirect farmland protection alternatives such as public or County purchase, or donation of development rights.	No

Potentially Significant Impacts	Suggested Mitigation Measures	If implemented will impact be mitigated to an acceptable level?
	- Consider farmland trusts which can be used effectively to preserve agricultural land.	No
2. The proposed project would cause levels of service at six intersections to drop below LOS "C" and would not be consistent with Roads and Streets Principle #5 of the Land Use and Circulation Element of the County General Plan.	All traffic mitigations recommended in Section V.A. should be conditions of project approval to bring the project into conformance with Principle #5. (County and Applicant)	Yes
<u>Traffic</u>		
1. Added project traffic would have measurable impacts on mainline freeway traffic and the following seven intersections:	The following mitigations would be required for the seven intersections: (County and Applicant)	
- Louise/I-5 southbound ramps	Signalize and widen intersection.	Yes ✓
- Louise/I-5 northbound ramps	Signalize and widen intersection.	Yes ✓
- Louise/Howland-7th	Signalize intersection.	Yes ✓
- Louise/Airport	Signalize and widen intersection.	Yes NO, [illegible]
- Guthmiller/SR 120 eastbound off-ramps	Signalize intersection.	Yes NO
- Airport/SR 120 eastbound ramps	Signalize intersection.	Yes NO
- McKinley/Vierra-Yosemite	Realign, signalize and widen intersection.	Yes NO

Potentially Significant Impacts	Suggested Mitigation Measures	If implemented will impact be mitigated to an acceptable level?
2. The added project traffic would have a measurable impact on peak hour weaving operations on I-5 south of the SR 120 junction.	Adopt a Transportation System Management (TSM) program for the proposed project to reduce project-generated traffic. (See Traffic Section for details.) (County)	Yes
3. Under cumulative development, 11 of the studied intersections would be significantly affected.	Intersection operations would require substantial interchange modifications, roadway expansion and intersection modifications.	Yes
<u>Air Quality</u>		
1. The proposed project would have less-than-significant impacts on regional and localized air quality; however, given significant regional conditions, this impact is considered significant.	See traffic mitigations for proposed project. In addition the number and design of new drive-up window facilities should be limited. (Applicant)	Yes
<u>Services and Utilities</u>		
<u>Sewage</u>		
a. Lathrop County Water District		
1. Currently LCWD does not have treatment capacity to serve the site.	Additional capacity must be purchased from the City of Manteca to serve the site, however, this may not be a realistic solution. (Applicant, LCWD)	~~No~~ YES

Potentially Significant Impacts	Suggested Mitigation Measures	If implemented will impact be mitigated to an acceptable level?
b. Manteca		
1. Manteca can only provide 75,000 g/d from the phase I expansion, leaving 43,000 g/d for other development. When this is committed the plant will be at capacity and a building moratorium will result until phase II is completed. The remaining allotment for the project will come from phase II and III expansion.	Additional data should be made available by the City to better evaluate the amount of excess treatment plant capacity allocated to other approved projects. (City of Manteca)	Maybe
2. Manteca may have under-estimated the GPD allotted from the phase III expansion by 217,000 GPD.	Higher sewage flows should be used for the phase III expansion to estimate the project's contribution. (City of Manteca)	
<u>Water</u>		
a. Lathrop County Water District		
1. The groundwater supply may be adversely affected with the increased demand for water.	Monitoring wells should be established concurrently with development. If it is shown that the groundwater supply is affected the following measures should be implemented:	
	- Establish strict water conservation measures. (Applicant, LCWD)	Yes

Potentially Significant Impacts	Suggested Mitigation Measures	If implemented will impact be mitigated to an acceptable level?
- Develop new wells further	Yes from the Delta channels. (LCWD)	
	and/or	
	- Enter into negotiations for a sustainable long-term surface water source. (LCWD)	Yes
	Groundwater monitoring should be entered into the County's groundwater model to predict long-term effects. (LCWD, County)	Yes
b. Manteca		
1. The water supply may be inadequate to meet fire flow requirements.	The City should complete the improvements identified in the 1987 addendum to the Master Plan prior to serving a remote industrial subdivision. (City of Manteca)	Yes
2. The groundwater supply may be adversely affected by the increased demand for water.	A joint agreement should be entered into between LCWD, Manteca and the County establishing maximum draw on the groundwater basin and establishing a regional growth policy in	Yes

Potentially Significant Impacts	Suggested Mitigation Measures	If implemented will impact be mitigated to an acceptable level?
	keeping with the limited ground-water reserves. (LCWD, City of Manteca)	
Fire Protection		
1. The demand for fire protection services provided by the Manteca-Lathrop Rural Fire District would be increased by 25 percent. Existing manpower and equipment would have to be upgraded to continue providing an adequate level of fire protection services.	The applicant would be assessed a one-time fee under the recently enacted Fire Facilities Fee Ordinance to fund the necessary expansion of facilities. Additional personnel would be funded through property taxes. (Applicant)	Yes
2. The proposed on-site storage tank capacity of 500,000 gallons is considered by the Fire District to be minimal for this size project.	Prior to approval of the Final Development plan for the proposed project, the Fire District should coordinate with the agency providing water services to the site to ensure that the on-site storage tank has adequate capacity to meet the fire protection needs of the project. (Fire District, Applicant)	Yes

Potentially Significant Impacts	Suggested Mitigation Measures	If implemented will impact be mitigated to an acceptable level?
Law Enforcement		
1. The proposed project would significantly increase the demand for law enforcement services. The Sheriff's Department estimates that existing beat coverage would have to be upgraded with one additional full-time position to serve the proposed project.	The Sheriff's Department is recommending that the County Board of Supervisors establish a funding mechanism for providing the additional resources necessary to serve the proposed project. If this is not accomplished the impact on the Sheriff's Department would be significant. (County Board of Supervisors)	Yes
Hazards/Nuisances		
Hazardous/Toxic Wastes		
1. The proposed project could conflict with on-going remediation in the southern portion of the site by: (1) limiting access to and from the operation of the groundwater extraction system, and (2) limiting the possibilities for installation of additional extraction wells.	Appropriate easements should be granted and/or retained for access to and operation of the existing groundwater extraction system and monitoring wells connected with the Occidental Chemical site clean-up effort. (Applicant)	Yes

Potentially Significant Impacts	Suggested Mitigation Measures	If implemented will impact be mitigated to an acceptable level?
2. A possible risk exists with the presence of hazardous materials in surface soils and storage areas on the adjoining sites which may be mobilized and transported across property lines during flood conditions. Existing and potential future hazardous material releases on adjoining properties could be brought into contact with people on the project site.	Drainage improvements should be installed in accordance with the recommended mitigation measures outlined in the Flooding Section of this report, to eliminate on-site ponding and prevent transport and spreading of hazardous materials that may spill or accumulate at adjoining industrial sites. (Applicant)	Yes
3. The volatile chemical contaminants detected in the soils and/or groundwater beneath the southern portion of the project site may pose a potential risk to occupants of enclosed buildings.	Building sites known or suspected of being situated over soils or groundwater contaminated with volatile organic chemicals should either be: (a) remediated by removal of the contaminants; or, (b) designed in a manner to prevent volatile chemicals from entering and collecting in an enclosed building air spaces via seeps through the foundation. (Applicant)	Yes

Potentially Significant Impacts	Suggested Mitigation Measures	If implemented will impact be mitigated to an acceptable level?
Flooding		
1. Development of the site will result in exposure of people and property to flood hazards. The significant increase in impervious surface area will increase flooding problems unless appropriate measures are taken to control and dispose of stormwater runoff.	The applicant should contribute funds toward the reconstruction of levees along the San Joaquin River. Such improvements are currently being proposed by Reclamation District No. 17. (Applicant)	Yes
	The sizing of the project's stormwater detention ponds to be used in conjunction with the terminal drainage system and the capacity of the pumps should be designed without any allowances	Yes

Potentially Significant Impacts	Suggested Mitigation Measures	If implemented will impact be mitigated to an acceptable level?
	for percolation and using a minimum design storm equal to a 10-year, 24-hour event. (Applicant)	
	Any on-site stormwater detention ponds should maintain a minimum separation of 5 feet between the bottom of the pond and the groundwater or seasonally high groundwater. (Applicant)	Yes
	The on-site pumping station, in conjunction with any storage volume, should protect the site from flooding as a result of the design storm. In addition, the pumps should be capable of emptying the detention ponds within 48 hours. (Applicant)	Yes
<u>Noise</u>		
1. Highway Service uses would be located in the north and west portions of the project site where existing and future noise levels exceed County standards for residential uses (transient lodging, hotels, motels).	A detailed noise analysis should be conducted when architectural plans for the highway service uses are available. The project should include sound attenuation measures for reducing interior noise levels of the hotels and motels or other noise sensitive uses in the Highway Service area. (Applicant)	Yes

Potentially Significant Impacts	Suggested Mitigation Measures	If implemented will impact be mitigated to an acceptable level?
ALTERNATIVES TO THE PROPOSED PROJECT		
NO DEVELOPMENT		
Land Use		
There are no land use impacts associated with this alternative.	No mitigations are necessary.	
Traffic		
Traffic conditions in the project area would not be affected.	No mitigations are necessary.	
Air Quality		
Air quality conditions in the project area would remain unaffected, or would be improved due to improved vehicle emission controls and local steps toward improving County-wide air quality through implementation of the Air Quality Maintenance Plan.	No mitigations are necessary.	

Potentially Significant Impacts	Suggested Mitigation Measures	If implemented will impact be mitigated to an acceptable level?
Public Services and Utilities		
No additional demand for water, sewer, law enforcement and fire protection services would be generated.	No mitigations are necessary.	
Hazards		
The project site would be subjected to 100-year floods from the San Joaquin River.	Without development of the site, no mitigations are necessary.	
Remediation efforts for the adjacent toxic waste site would be unaffected.	No mitigations are necessary.	
PROJECT IN CONFORMANCE WITH GENERAL PLAN (ALL GENERAL INDUSTRIAL)		
Land Use		
Land use impacts would be similar as those for the proposed project.	See recommended mitigations for the proposed project.	No
Traffic		
The added project traffic from this alternative would be similar to the proposed project.	See mitigations recommended for the proposed project.	Yes

Potentially Significant Impacts	Suggested Mitigation Measures	If implemented will impact be mitigated to an acceptable level?
Air Quality		
The elimination of Highway Service uses would reduce local CO emissions by reducing the total idling time and slower vehicle speeds in the project vicinity.	See air quality mitigations recommended for the proposed project.	Yes
Public Services and Utilities		
Sewer and Water		
Impacts would be similar as those identified for the proposed project.	See mitigations recommended for the proposed project.	Yes and No
Fire Protection		
The overall increase in demand for fire protection services would be reduced by 10 percent when compared with the proposed project due to the elimination of Highway Service uses.	See mitigations recommended for the proposed project.	Yes

Potentially Significant Impacts	Suggested Mitigation Measures	If implemented will impact be mitigated to an acceptable level?
Law Enforcement		
Elimination of the Highway Service uses would also reduce the demand for law enforcement services. However, site development would still require that existing coverage be upgraded.	See mitigations recommended for the proposed project.	Yes
Hazards/Nuisances		
Hazardous Materials and Flooding		
Impacts would be similar as those identified for the proposed project.	See mitigations recommended for the proposed project.	Yes
Noise		
Noise impacts would be eliminated with this alternative since no hotels or motels would be allowed in a General Industrial zone.	No noise mitigations would be necessary.	

Potentially Significant Impacts	Suggested Mitigation Measures	If implemented will impact be mitigated to an acceptable level?
MODIFIED PROJECT (LIMITED INDUSTRIAL USES)		
Land Use		
Impacts would be similar as those identified for the proposed project.	See mitigations recommended for the proposed project.	No
Traffic		
This alternative would generate 25 percent less traffic than the proposed project.	See mitigations recommended for the proposed project.	Yes
Air Quality		
The 25 percent reduction in traffic would proportionally reduce air pollutant emissions. No permitted uses under the R-M zone would require special permits from the Local Air Pollution Control District.	See mitigations recommended for the proposed project.	Yes
Services/Utilities		
Sewer/Water		
Sewer and water impacts would be similar as those identified for the proposed project.	See mitigations recommended for the proposed project.	Yes/No

Potentially Significant Impacts	Suggested Mitigation Measures	If implemented will impact be mitigated to an acceptable level?
Fire Protection		
The increased demand for fire protection services would be reduced by approximately 10 percent when compared to the proposed project due to the elimination of Highway Service use.	See mitigations recommended for the proposed project.	Yes
Law Enforcement		
Elimination of the Highway Service use would also reduce the demand for law enforcement services. However, site development would still require that current resources be upgraded.	See mitigations recommended for the proposed project.	Yes
Hazards/Nuisances		
Hazardous Materials/Flooding		
Impacts would be similar as those identified for the proposed project.	See mitigations recommended for the proposed project.	Yes

Potentially Significant Impacts	Suggested Mitigation Measures	If implemented will impact be mitigated to an acceptable level?
Noise		
Noise impacts would be eliminated since no hotels or motels would be allowed in a Limited Industrial zone.	The noise mitigations identified for the proposed project would not be necessary.	N/A
ALTERNATIVE SITE		
Land Use		
Approval of the proposed highway serving commercial use at the Del'Osso site would result in the loss of 50 acres of prime agricultural land.	There are no mitigations for the loss of prime agricultural land.	No
Land use conflicts would occur due to the proximity of agricultural uses at the Del'Osso site.	Mitigations would be necessary to reduce land use conflicts.	No
Traffic		
Added traffic from this alternative would cause long delays to side street vehicles on the I-5 underpass at Manthey Road and Mossdale Road.	Mitigations would be necessary to improve service levels on affected roadways.	Yes
The weaving operations on I-5 south of SR 120 would be aggravated with development of the Del'Osso site.	Refer to mitigation discussion in the Traffic Section.	Yes

Potentially Significant Impacts	Suggested Mitigation Measures	If implemented will impact be mitigated to an acceptable level?
Air Quality		
Impacts would be similar as those identified for the proposed project.	See mitigations recommended for the proposed project.	Yes
Public Services		
On-site water, sewer and storm drainage systems would be required at the alternative site.	Mitigations would be required for impacts associated with use of these systems.	Yes
This alternative would increase the demand for fire protection services to the same extent that the H-S use would if developed at the proposed project site. Emergency response times to the alternative site would be slightly longer than those for the proposed project site due to its distance from Station 1.	See mitigations recommended for the proposed project.	Yes
Development of H-S uses at the alternative site would increase the demand for law enforcement services. Upgrading beat coverage in the area would be necessary.	See mitigations recommended for the proposed project.	Yes

Potentially Significant Impacts	Suggested Mitigation Measures	If implemented will impact be mitigated to an acceptable level?
Hazards/Nuisances		
Hazardous Materials/Flooding		
The alternative site is within the 100-year flood plain. Site development would be subject to the same flood risks as the proposed project.	See mitigations recommended for the proposed project.	Yes
There is no known public risk of exposure to hazardous materials at the alternative site.	Mitigation measures identified for the proposed project would not be necessary at the alternative site.	N/A
Noise		
The alternative site is located adjacent to I-5. Hotel and motel uses in the H-S area would be subject to noise levels in excess of County standards for transient occupancy residential uses.	See mitigations recommended for the proposed project.	Yes
Growth Inducement		
Development of the site would have greater growth-inducing impacts than the proposed project.	Additional mitigation measures would be necessary to reduce growth-inducing effects.	No