SCH#90020375

BASS LAKE ROAD STUDY AREA

FINAL PROGRAM ENVIRONMENTAL IMPACT REPORT

Prepared For
County of El Dorado

JANUARY 24, 1992

Prepared By
R. C. Fuller Associates
5908 Fair Oaks Boulevard
Carmichael, California 95608

BASS LAKE ROAD STUDY AREA
FINAL ENVIRONMENTAL IMPACT REPORT

ERRATA

The purpose of this Errata sheet is to provide corrected information that should be incorporated into the Bass Lake Road Final Environmental Report, dated January 24, 1992.

REVISION 1

Mitigation measure K01, presented on pages 17, 55, and 60 of the Final EIR, and page 22 of the Mitigation Monitoring Plan, indicates that the County will permit processing of Tentative Maps conditioned to prevent recordation of a Final Map until water service is guaranteed. On August 28, 1990 the El Dorado County Board of Supervisors adopted Resolution 268-90 which prohibits the processing of any Tentative Map that cannot demonstrate the long term viability of the proposed water source. Mitigation measure K01 has been rewritten to reflect current policy, and reads as follows:

K01 Projects which are not currently within the service area of EID will be required to petition LAFCO for annexation. LAFCO requires that EID shall provide written documentation stating its ability to provide adequate service to annexing property when it is anticipated that such services will be needed and that provision of such service will not create a significant negative impact on the properties already receiving service. Additionally, the letter will identify when the service is projected to be needed and the plan which the District has developed for expanding its service capacity to meet the needs of the annexing territory at that time. Extension of service will only be provided in compliance with EID policies 22 and 41. Tentative Maps will not be processed by the County until they are able to demonstrate the long term viability of their proposed water source.

REVISION 2

Mitigation measure G03, presented on page 12 of the Final EIR and page 14 of the accompanying Mitigation Monitoring Plan indicates that, consistent with California Clean Air Act requirements, the El Dorado County APCD is preparing an air quality attainment plan for submittal to the ARB. Since preparation of the Draft and Final EIRs, that plan has been reviewed by ARB and was adopted by the El Dorado County Board of Supervisors on February 10, 1992. Mitigation measure G03 has been rewritten to read as follows:

G03 In order to mitigate potentially adverse impacts to air quality, projects within the Bass Lake study area will be required to demonstrate compliance with the requirements of the El Dorado County Air Quality Attainment Plan.

REVISION 3

The Final EIR, page 10, identifies the potential impact to water quality as "M", indicating that this impact will be mitigated to a less than significant level. This conflicts with the accompanying text which indicates that long term degradation of water quality is an unavoidable consequence of residential development. The impact has been rewritten as follows:

S Project implementation will adversely impact runoff quality. Construction has the potential to generate sediment and debris, contributing to short term degradation of runoff quality from the study area. Development will eliminate livestock contamination of intermittent drainages, but will introduce urban contaminants resulting in the long term degradation of runoff quality.

Potential construction impacts will be mitigated to a less than significant level by implementation of measures D04 and D05. Long term degradation of runoff water quality is an unavoidable consequence of residential development that cannot be entirely avoided. This impact will be reduced, but not to a less than significant level by mitigation measures E01, E02, and E03.

REVISION 4

Appendix D of the Final EIR contains the supplemental traffic analysis prepared by TJKM Transportation Consultants. One of the tasks included in this analysis is examination of the predicted operating conditions at the Highway 50/Bass Lake Road interchange in the year 2001. Attachment C of the TJKM report provides the land use assumptions utilized in predicting traffic volumes for the year 2001. The calculations included as Attachment C are incomplete without the accompanying text which identifies the land use assumptions. The attached letter from Ken Greenwood, Senior Planner, should be included as part of Attachment C of the TJKM traffic analysis.

COUNTY OF
EL DORADO

COMMUNITY DEVELOPMENT DEPARTMENT
PLANNING DIVISION

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December 23, 1991

Richard Fuller
R.C. Fuller Associates
5908 Fair Oaks Boulevard
Carmichael, CA 95608

RE: Bass Lake Road 2001 Traffic Study

Dear Richard:

I apologize for the delay, but the analysis was more involved than originally envisioned. The extra time and effort gives me a higher comfort level in the following assumptions.

Enclosed is a revised zone table with a more up-to-date projection of projects affecting traffic at the U.S. 50/Bass Lake Road interchange during the next ten years. The attached zone table is ready for computer entry by TJKM to be compared with the "interchange capacity threshold" previously calculated. The revised table represents some significant reductions in demand such that the threshold may well be met. If budget allows, an additional analysis is requested. If the 10% growth rate is below the interchange capacity threshold, what level of growth could be accomodated by the interchange? This should supply us with a very defensible position.

I have interviewed several local developers to better understand their current and future plans as well as past and current trends. It is generally agreed that current economic conditions may prevail through 1992 and into 1993. However, the desirability of the Sacramento/Foothill area will certainly continue for the ten-year horizon and much of the area will be built out. The completion of the 2010 General Plan will facilitate the Marble Valley development, but it will take six to eight years to procede to the point of building permits. El Dorado Hills Investors indicate that development of the east portion of their property will likely follow a similar timeline.

A growth rate of 10% of lots sold and built per year for the developments following final map recordation was assumed for all development. This is based upon sales of nearby developments, secured parcel counts (1986-1991), the lag time for building and occupancy, developer's projections, buildout of project area absorbing demand, and market saturation. It is also assumed that "vacant infill" areas will take an average of five years to receive recorded maps, leaving five years of growth at 10% to occur.

The basic assumptions shown on the revised table of the Bass Lake Area Network and zone structure for the ten-year analysis horizon are as follows:

- All proposed subdivisions within the project area are built out (1,467 units);
- "Vacant infill" of the project area is 50% built out (551 units) allowing for final of maps;
- All approved, finaled, and proposed subdivisions outside the project area are built out;
- Marble Valley is seven years to building permits, then 10% per year (30% = 542);
- East end El Dorado Hills Specific Plan, eight years to permits, then 10% per year (20% = 300);
- The proposed Bass Lake Subdivision will remain in Williamson Act until the year 2000 (minus 467);
- Schools will serve all needs;
- Commercial land will build out at 10% per year;
- Existing uses will not intensify.

Thank you for your attention to this matter. If you have any questions, please contact me at (916) 621-5355.

Sincerely,

Ken R Greenwood

Ken Greenwood
Senior Planner

KG:cmt

Enclosure

cc: Steven Hust
Bass Lake Group

(KG/ltrs/BassLake)

BASS LAKE ROAD STUDY AREA
FINAL PROGRAM ENVIRONMENTAL IMPACT REPORT

TABLE OF CONTENTS

BASS LAKE ROAD STUDY AREA
FINAL PROGRAM ENVIRONMENTAL IMPACT REPORT

I. INTRODUCTION

This Final Program EIR has been prepared in accordance with the requirements of the County of El Dorado and the California Environmental Quality Act (CEQA). The purpose of this document is to identify and respond to comments on the **BASS LAKE ROAD STUDY AREA DRAFT PROGRAM ENVIRONMENTAL IMPACT REPORT**, SCH#90020375, dated June 14, 1991. the Draft Program EIR is appended to this document by reference. This document consists of five sections plus appendices. The format utilized is as follows:

I. INTRODUCTION. Information in this section describes the purpose and format of the **FINAL PROGRAM EIR** document.

II. SUMMARY. This section provides a brief **PROJECT DESCRIPTION** and a revised version of Table B1, the **SUMMARY OF IMPACTS AND MITIGATION MEASURES** from the Draft Program EIR. This information has been revised to reflect changes resulting from comments on the Draft Program EIR.

III. PERSONS, ORGANIZATIONS, AND PUBLIC AGENCIES COMMENTING ON THE DRAFT EIR. This section identifies persons, organizations, and public agencies which commented on the Draft Program EIR. Each commentor is identified with his/her agency or affiliation.

IV. COMMENTS AND RESPONSES. This section identifies the comments made on the Draft Program EIR, and presents the responses to those comments. Comments and responses are categorized by subject. In order to minimize redundancy, same or similar comments are grouped together, and a collective comment which summarized the individual comments is provided. Each comment and response consists of three parts. The comment is presented first, followed by a list of the person(s) making the comment, and last, by the response.

V. MITIGATION MONITORING PLAN. The Mitigation Monitoring Plan identifies the parties responsible for implementation of mitigation measures identified in the Program EIR.

APPENDIX A: provides copies of all of the comment letters received on the Draft Program EIR. **APPENDIX B:** includes miscellaneous correspondence generated during preparation of the Final EIR. **APPENDIX C:** consists of the minutes of the Planning Commission hearing held on August 8, 1991 to receive comments on the Draft Program EIR. **APPENDIX D:** is documentation of the additional traffic analysis performed by TJKM Transportation Consultants in response to comments made on the Draft EIR. **APPENDIX E:** contains the Archaeological Reconnaissance of the alternative sewer alignments examined for the final EIR. **APPENDIX F:** is composed of reductions of preliminary infrastructure and facility plans prepared to guide development of the study area. **APPENDIX G:** is the Mitigation Monitoring Plan.

II. SUMMARY

The **PROPOSED PROJECT** examined by the **BASS LAKE ROAD STUDY AREA PROGRAM EIR** consists of proposed and assumed residential development of the area situated between the El Dorado Hills Specific Plan area to the west and Cameron Park to the east. this study area, shown in Figure 1, is approximately 1,223 acres in size, and includes 89 assessors parcels ranging in size from 1.1 to 96.3 acres.

Column (1) of Table 1 provides information on the individual parcels within the study area. Columns (2) through (7) identify the number of units that could be developed under the various scenarios. The **PROPOSED PROJECT** scenario is presented as column (4).

Although the current General Plan allows development of densities as high as five units/acre in the study area, three units per acre is more consistent with surrounding land use, and regarded as a feasible level of development which could be attained.

The **PROPOSED PROJECT** includes 1) actual densities identified by the nine developments which have already been proposed within the study area, 2) three units/acre on parcels where such a density is allowed by the **GENERAL PLAN** but more detailed development plans have not yet been prepared, and 3) one unit/acre on those parcels limited to this density by the **GENERAL PLAN.** As indicated in column (4) of Table 1, this scenario would result in development of approximately 2,847 single family homes with an overall density of roughly 2.32 units per acre. It must be noted that, in response to a comment on the Draft Program EIR, the land use designation of parcel 108-130-30 has been corrected from 5 to 1 unit per acre. Consequently, the number of units actually included in the **PROPOSED PROJECT** is slightly less than that identified in the Draft Program EIR.

A summary of the impacts and mitigation measures proposed for the project is presented in Table 2, the **REVISED SUMMARY OF IMPACTS AND MITIGATION MEASURES.** As a consequence of requested changes generated during the comment process, this table differs slightly from its predecessor presented in the Draft EIR.

Suggested levels of significance for potential impacts identified in Table B1 are presented in a box at the left hand margin as demonstrated below. As demonstrated below, each impact is described in an indented paragraph which is preceded by a box at the left margin. The suggested level of significance for each impact is identified in the box as follows:

[L] **LESS THAN SIGNIFICANT IMPACT.** Project specific impacts in this category are suggested to be less than significant without the application of mitigation measures by the project.

M **MITIGATED IMPACT.** This designation identifies a potentially significant impact for which adequate mitigation has been identified to reduce the magnitude of the impact to a less than significant level.

S **SIGNIFICANT IMPACT.** Impacts in this category are suggested to be significant regardless of mitigation incorporated into the project. In the cumulative analysis, this designation indicates that the project impact, even though it may be less than significant by itself, will contribute to a significant impact created by the combined impacts of several projects.

Mitigation measures are presented in Column 2 of Table B1. As demonstrated below, each mitigation measure is assigned a unique number which is presented immediately to the left of the mitigation description.

D05 Grading, trenching, and similar construction activities which involve disturbance of the soil will be performed in accordance with the provisions of County Ordinance 3983. The ordinance specifies that such activities be restricted to the summer season and/or extended periods of dry weather. Filter berms, sandbag or hay bale barriers, culvert risers, filter inlets, and/or sediment detention basins will be utilized as appropriate during construction to protect area waterways from siltation and debris. All open ditches or developed swales will be appropriately vegetated or lined with coarse rock.

Each section of the EIR is identified by a letter. In order to avoid duplication of mitigation measures, this letter is used as the first character in the mitigation numbering scheme to identify the section where that particular mitigation measure originates. In the example presented above, **D** indicates that the measure originates in the **GEOLOGY, SEISMICITY, & SOILS** section. This numbering scheme is most helpful in instances where an individual measure is identified in different sections. For example, measure **D05** is also referenced in the Vegetation & Wildlife section where it is credited with reducing siltation of area waterways and providing protection of aquatic habitat.

BASS LAKE ROAD STUDY AREA | **FIGURE 1**

TABLE 1
STUDY AREA PROPERTIES / DEVELOPMENT ALTERNATIVES

(1) PARCEL DATA			(2) GENERAL PLAN Buildout to General Plan land use			(3) REDUCED GENERAL PLAN Areas designated 5 units/acre limited to 3 units/acre	(4) PROPOSED PROJECT Column (3) modified to include currently proposed development			(5) NO PROJECT ALTERNATIVE Existing Zoning 1 unit/10 acres (except lot 86 is 1 unit/20 acres)	(6) HIGHER DENSITY ALTERNATIVE Column (2) modified to include currently proposed development	(7) LOWER DENSITY ALTERNATIVE Column (4) with General Plan densities shifted to next lower land use category	
APN	Ref # Fig C2	Acres	Land Use	Units/ Acre	Units	Units	Dev*	Units/ Acre	Units	Units	Units	Units/ Acre	Units
108-110-05		1.1	F	5.0	5.7	3.4			3.4	0.1	5.7	1.0	1.1
108-130-21	1	17.0	F	5.0	85.0	51.0			51.0	1.7	85.0	1.0	17.0
108-130-19	2	10.4	F	5.0	52.0	31.2			31.2	1.0	52.0	1.0	10.4
108-130-30	3	27.2	G	1.0	27.2	27.2			27.2	2.7	27.2	0.2	5.4
108-070-19	4	19.9	6F/14G	2.2	43.9	31.7			31.7	2.0	43.9	0.4	8.8
108-070-15	5	10.1	F	5.0	50.5	30.3			30.3	1.0	50.5	1.0	10.1
108-130-16	6	10.0	F	5.0	50.0	30.0			30.0	1.0	50.0	1.0	10.0
108-130-18	7	10.4	F	5.0	52.0	31.2			31.2	1.0	52.0	1.0	10.4
108-130-17	8	10.0	F	5.0	50.0	30.0			30.0	1.0	50.0	1.0	10.0
108-130-15	9	10.3	F	5.0	51.5	30.9			30.9	1.0	51.5	1.0	10.3
108-130-14	10	8.7	F	5.0	43.5	26.1			26.1	0.9	43.5	1.0	8.7
108-130-13	11	14.0	F	5.0	70.0	42.0			42.0	1.4	70.0	1.0	14.0
108-130-12	12	10.0	F	5.0	50.0	30.0			30.0	1.0	50.0	1.0	10.0
108-070-08	13	10.2	F	5.0	51.0	30.6			30.6	1.0	51.0	1.0	10.2
108-130-11	14	10.0	F	5.0	50.0	30.0			30.0	1.0	50.0	1.0	10.0
108-130-10	15	9.5	F	5.0	47.5	28.5			28.5	1.0	47.5	1.0	9.5
108-130-04	16	10.0	3F/7G	2.2	22.0	16.0			16.0	1.0	22.0	0.4	4.4
108-130-05	17	10.0	F	5.0	50.0	30.0			30.0	1.0	50.0	1.0	10.0
108-130-09	18	10.0	F	5.0	50.0	30.0			30.0	1.0	50.0	1.0	10.0
108-130-08	19	10.0	F	5.0	50.0	30.0			30.0	1.0	50.0	1.0	10.0
108-130-07	20	10.0	F	5.0	50.0	30.0			30.0	1.0	50.0	1.0	10.0
108-130-06	21	10.0	F	5.0	50.0	30.0			30.0	1.0	50.0	1.0	10.0
108-130-03	22	10.0	8F/2G	4.2	42.0	26.0			26.0	1.0	42.0	0.8	8.4
108-130-28	23	10.0	G	1.0	10.0	10.0			10.0	1.0	10.0	0.2	2.0
108-130-29	24	10.8	G	1.0	10.8	10.8			10.8	1.1	10.8	0.2	2.2
108-130-02	25	10.1	F	5.0	50.5	30.3			30.3	1.0	50.5	1.0	10.1
108-130-25	26	11.5	7.5F/4G	3.6	41.5	26.5			26.5	1.2	41.5	0.7	8.3
108-130-27	27	10.0	9F/1G	4.6	46.0	28.0			28.0	1.0	46.0	0.9	9.2
108-130-26	28	10.0	8F/2G	4.2	42.0	26.0			26.0	1.0	42.0	0.8	8.4
108-130-24	29	10.0	F	5.0	50.0	30.0			30.0	1.0	50.0	1.0	10.0
108-130-23	30	10.1	F	5.0	50.5	30.3	WS	2.67	27.0	1.0	27.0	2.7	27.0

* Dev: See end of Table

TABLE CONTINUED NEXT PAGE

TABLE 1 (CON'T)
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APN	Ref # Fig C2	Acres	Land Use	Units/ Acre	Units	Units	Dev*	Units/ Acre	Units	Units	Units	Units/ Acre	Units
103-060-01	31	40.1	F	5.0	200.5	120.3	HVR	2.74	110.0	4.0	110.0	2.7	110.0
103-060-02	32	11.6	F	5.0	58.0	34.8			34.8	1.2	58.0	1.0	11.6
103-060-03	33	10.2	F	5.0	51.0	30.6			30.6	1.0	51.0	1.0	10.2
103-060-04	34	10.1	F	5.0	50.5	30.3			30.3	1.0	50.5	1.0	10.1
108-120-04	35	10.0	F	5.0	50.0	30.0	HO	2.08	20.8	1.0	20.8	2.1	20.8
108-120-03	36	10.0	F	5.0	50.0	30.0	HO	2.08	20.8	1.0	20.8	2.1	20.8
108-120-02	37	10.0	F	5.0	50.0	30.0	SH	2.63	26.3	1.0	26.3	2.6	26.3
108-120-01	38	10.0	F	5.0	50.0	30.0	SH	2.63	26.3	1.0	26.3	2.6	26.3
108-120-14	39	10.0	F	5.0	50.0	30.0	SH	2.63	26.3	1.0	26.3	2.6	26.3
108-120-18	40	10.0	F	5.0	50.0	30.0	SH	2.63	26.3	1.0	26.3	2.6	26.3
108-120-31	41	10.0	F	5.0	50.0	30.0	YP	2.65	26.5	1.0	26.5	2.7	26.5
108-120-17	42	10.0	F	5.0	50.0	30.0	SH	2.63	26.3	1.0	26.3	2.6	26.3
108-120-16	43	10.0	F	5.0	50.0	30.0	SH	2.63	26.3	1.0	26.3	2.6	26.3
108-120-15	44	10.0	F	5.0	50.0	30.0	CL	2.45	24.5	1.0	24.5	2.5	24.5
108-110-01	45	41.0	F	5.0	205.0	123.0	CL	2.45	100.7	4.1	100.7	2.5	100.7
108-110-03	46	41.2	F	5.0	206.0	123.6			123.6	4.1	206.0	1.0	41.2
108-110-12	47	20.0	F	5.0	100.0	60.0			60.0	2.0	100.0	1.0	20.0
108-110-14	48	10.0	F	5.0	50.0	30.0			30.0	1.0	50.0	1.0	10.0
108-010-02	49	40.0	F	5.0	200.0	120.0	BR	1.80	72.2	4.0	72.2	1.8	72.2
108-110-13	50	10.0	F	5.0	50.0	30.0			30.0	1.0	50.0	1.0	10.0
108-110-11	51	10.0	F	5.0	50.0	30.0			30.0	1.0	50.0	1.0	10.0
108-110-10	52	10.2	F	5.0	51.0	30.6			30.6	1.0	51.0	1.0	10.2
108-110-09	53	10.2	F	5.0	51.0	30.6	CL	2.45	25.0	1.0	25.0	2.5	25.0
108-110-08	54	10.9	F	5.0	54.5	32.7	CL	2.45	26.8	1.1	26.8	2.5	26.8
108-120-32	55	10.0	F	5.0	50.0	30.0	YP	2.65	26.5	1.0	26.5	2.7	26.5
108-120-30	56	10.0	F	5.0	50.0	30.0	YP	2.65	26.5	1.0	26.5	2.7	26.5
108-120-29	57	10.0	F	5.0	50.0	30.0	YP	2.65	26.5	1.0	26.5	2.7	26.5
108-010-01	58	96.3	F	5.0	481.5	288.9	BR	1.80	173.8	9.6	173.8	1.8	173.8
108-120-21	59	10.0	F	5.0	50.0	30.0	SH	2.63	26.3	1.0	26.3	2.6	26.3
108-120-19	60	10.0	F	5.0	50.0	30.0	SH	2.63	26.3	1.0	26.3	2.6	26.3

* DEV: See end of Table

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APN	Ref # Fig C2	Acres	Land Use	Units/ Acre	Units	Units	Dev*	Units/ Acre	Units	Units	Units	Units/ Acre	Units
108-120-20	61	10.0	F	5.0	50.0	30.0			30.0	1.0	50.0	1.0	10.0
108-120-08	62	10.0	F	5.0	50.0	30.0	HO	2.08	20.8	1.0	20.8	2.1	20.8
108-120-05	63	10.0	F	5.0	50.0	30.0	HO	2.08	20.8	1.0	20.8	2.1	20.8
108-120-06	64	10.0	F	5.0	50.0	30.0	HO	2.08	20.8	1.0	20.8	2.1	20.8
108-120-07	65	10.0	F	5.0	50.0	30.0	HO	2.08	20.8	1.0	20.8	2.1	20.8
103-010-19	66	14.2	F	5.0	71.0	42.6	HO	2.08	29.6	1.4	29.6	2.1	29.6
103-010-18	67	13.2	F	5.0	66.0	39.6	HO	2.08	27.5	1.3	27.5	2.1	27.5
103-010-17	68	11.3	F	5.0	56.5	33.9	HO	2.08	23.5	1.1	23.5	2.1	23.5
103-010-16	69	11.6	F	5.0	58.0	34.8	HO	2.08	24.2	1.2	24.2	2.1	24.2
108-010-03	70	40.0	F	5.0	200.0	120.0	OK	1.71	68.3	4.0	68.3	1.7	68.3
108-120-24	71	10.0	F	5.0	50.0	30.0	HO	2.08	20.8	1.0	20.8	2.1	20.8
108-120-23	72	10.0	F	5.0	50.0	30.0	HO	2.08	20.8	1.0	20.8	2.1	20.8
108-120-25	73	10.0	F	5.0	50.0	30.0	HO	2.08	20.8	1.0	20.8	2.1	20.8
108-120-26	74	10.0	F	5.0	50.0	30.0			30.0	1.0	50.0	1.0	10.0
108-120-10	75	10.0	F	5.0	50.0	30.0	SCE	2.40	24.0	1.0	24.0	2.4	24.0
108-120-12	76	10.0	F	5.0	50.0	30.0	HO	2.08	20.8	1.0	20.8	2.1	20.8
108-120-11	77	10.0	F	5.0	50.0	30.0	HO	2.08	20.8	1.0	20.8	2.1	20.8
108-120-13	78	10.0	F	5.0	50.0	30.0	HO	2.08	20.8	1.0	20.8	2.1	20.8
108-010-07	79	33.7	F	5.0	168.5	101.1	HO	2.08	70.2	3.4	70.2	2.1	70.2
108-070-07	80	10.0	G	1.0	10.0	10.0			10.0	1.0	10.0	0.2	2.0
108-070-12	81	10.2	F	5.0	51.0	30.6			30.6	1.0	51.0	1.0	10.2
108-070-18	82	18.0	G	1.0	18.0	18.0			18.0	1.8	18.0	0.2	3.6
108-070-20	83	9.2	G	1.0	9.2	9.2			9.2	0.9	9.2	0.2	1.8
108-070-22	84	10.2	G	1.0	10.2	10.2			10.2	1.0	10.2	0.2	2.0
108-070-16	85	10.0	7F/3G	3.8	38.0	24.0			24.0	1.0	38.0	0.8	7.6
108-070-04	86	27.0	G	1.0	27.0	27.0			27.0	1.4	27.0	0.2	5.4
108-010-09	87	5.7	F	5.0	28.5	17.1			17.1	0.6	28.5	1.0	5.7
108-280-05	88	5.7	F	5.0	28.5	17.1	OK	1.71	9.7	0.6	9.7	1.7	9.7
89		1223.1			5494.5	3358.6			2846.7	121.0	3706.0		1863.6

* Dev: Currently proposed Developments in the study area
HO - Hollow Oaks, HVR - Hawk View Ridge, BR - Bell Ranch, SH - Stone Hill, YP - Yowell Properties, WS - Wright Subdivision
OK - Oak Knoll, SCE - Sutter Creek Estates, CL - City Lights

TABLE B1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

IMPACTS	MITIGATION MEASURES
GEOLOGY, SEISMICITY, AND SOILS	
[M] The Bass Lake study area is subject to seismically induced groundshaking. Development of the study area will increase the number of people and value of personal property exposed to this phenomena. The potential for seismic events in the study area cannot be reduced, and thus future residents cannot be isolated from such phenomena. Implementation of mitigation measures D01 and D02 will reduce the chance of loss of life or substantial property damage induced by seismic events to an acceptable level.	D01 Each project within the Bass Lake Road study area will retain a geotechnical engineer to identify soil constraints and make recommendations regarding development of roadways, foundations, and other structures. Each engineer will be required to submit documentation of field evaluation of facilities to the Department of Transportation. D02 El Dorado County requires that structures be constructed to the standards of the Uniform Building Code (UBC). The required strength of these structures is intended to be adequate to withstand a seismic event of the probable maximum expectable intensity predicted for the region. To this end, the County requires that each structure be approved prior to construction and inspected prior to occupation.
[M] As a consequence of the scattered rock outcrops and shallow depth to rock, blasting could be required to facilitate development. There are a variety of potentially adverse impacts which can accompany blasting, most notably noise and ground vibration. Noise impacts associated with blasting are addressed in the noise section of this report. If blasting is required, potential adverse impacts will be mitigated to a less than significant level by implementation of measures D03.	D03 The necessity for blasting will be determined on a project by project basis. In instances where blasting is required, the affected project will obtain appropriate permits from the County. Blasting will be performed only by professional firms in accordance with pertinent regulations.
[M] Development will require grading. This activity will remove vegetation and expose soils increasing the susceptibility of the site to erosion. This impact would be mitigated to a less than significant level by implementation of measures D04 and D05.	D04 Prior to development, each project will submit a Grading Plan to the El Dorado County Planning Department and Department of Transportation for review and approval. D05 Grading, trenching, and similar construction activities which involve disturbance of the soil will be performed in accordance with the provisions of County Ordinance 3983. The ordinance specifies that such activities be restricted to the summer season and/or extended periods of dry weather. Filter berms, sandbag or hay bale barriers,

culvert risers, filter inlets, and/or sediment detention basins will be utilized as appropriate during construction to protect area waterways from siltation and debris. All open ditches or developed swales will be appropriately vegetated or lined with coarse rock.

HYDROLOGY

[L] Development will increase the volume of runoff from the study area into the Deer Creek drainageshed. The Cameron Park storm drain system is sized to accommodate runoff from the project. The project will contribute an insignificant amount (<1%) to the volume of runoff which currently exceeds the capacity of the CMP at Cameron Road.

No mitigation is required.

[M] Hydrologic analysis indicates that development of the study area will increase the volume of runoff generated within the Carson Creek drainage during a 100 year storm event by ±32 acre-feet with an accompanying 23% increase in flow rate (cfs). Examination of Carson Creek has indicated that insufficient capacity exists downstream of the study area to accommodate this increase.

Implementation of measure **E02** will provide adequate mitigation to avoid exacerbation of the potential flooding situation created by the substandard channel segment located downstream of the study area.

[L] Development will decrease the surface area available for infiltration. Because the study area is underlain by impervious material, minimal infiltration naturally occurs and the study area is not recognized as a groundwater recharge zone. The predicted decrease in infiltration will not adversely impact regional groundwater resources.

No mitigation is required.

E01 Individual projects within the study area will adhere to the mitigation identified in the El Dorado Hills Salmon Falls Area Plan which specifies "*Non-building setbacks of 100 feet from perennial streams; 50 feet from intermittent streams; 150 feet from lakes; and 100 feet from ponds, should be observed as recommended by the County Health Department.*" Drainage shall be conveyed in vegetated corridors, and installation of storm drains will be restricted to minor swales where such systems are required to convey runoff to the protected corridors. Major drainages will be maintained as vegetated corridors. Except for limited measures to minimize erosion potential (bank stabilization, planting of native compatible grasses to enhance cover, etc.), no development will be permitted within these corridors. All culverts will be designed to allow the passage of aquatic organisms.

E02 Each project will provide detention adequate to maintain pre-project flow conditions. Although individual projects in the Bass Lake study area may elect to provide individual detention facilities, it is recommended that a single facility serving the entire study area be constructed. The appended hydrologic analysis indicates that construction of a detention facility with ±40 acre-feet of capacity will provide adequate mitigation to prevent exacerbation of the potential flooding situation created by the substandard channel segment located downstream of the study area. The proposed facility would be located at the site of the existing pond in the south central portion of the study area. Although the entire study area would not discharge to this pond, adequate detention could be provided to compensate for increased flows from the area outside of the facility's drainageshed. Construction, operation and maintenance of the facility could be provided through an Area of Benefit.

IMPACTS	MITIGATION MEASURES
[M] Project implementation will adversely impact runoff quality. Construction has the potential to generate sediment and debris, contributing to short term degradation of runoff quality from the study area. Development will eliminate livestock contamination of intermittent drainages, but will introduce urban contaminants resulting in the long term degradation of runoff quality. Potential construction impacts will be mitigated to a less than significant level by implementation of measures **D04** and **D05**. Long term degradation of runoff water quality is an unavoidable consequence of residential development that cannot be entirely avoided, but will be mitigated to an acceptable level by mitigation measures **E01**, **E02**, and **E03**.	**E03** Consistent with the methodology identified in CONTROLLING URBAN RUNOFF: A Practical Manual for Planning and Designing Urban BMPs, each project will submit a Best Management Practices (BMP) plan which specifies the measures which will be implemented to protect water quality. These measures will be identified on Tentative Maps and adopted as Conditions of Approval.
VEGETATION & WILDLIFE	
[M] Grading will be required for building pads, roadways, and utility trenches. This activity will expose soils making them more prone to erosion. Erosion could contribute to degradation of aquatic habitat through siltation. This impact will be mitigated to a less than significant level through implementation of measures **D04** and **D05**.	**F01** Each project proposed on a property which supports native oak trees will retain an arborist to prepare a tree survey. The survey will provide an inventory of trees on the site as well as recommendations for the removal or preservation of individual trees. Prior to construction, fencing will be installed outside of the dripline of trees which are to be protected.
[S] Development of the Bass Lake study area will require disruption and/or loss of natural communities. Grading and removal of vegetation to accommodate homes, streets, and facilities will disrupt approximately one-third of the area, while domestic landscaping will likely be planted over an additional 50% of the area. Following development it is anticipated that less than one-fourth of the area will support native vegetation. Wildlife species which are not compatible with these changes will be permanently displaced from the study area. Species which are less sensitive to human environments will adapt to the new conditions and continue to occupy the area. Even if areas are set aside for wildlife, the presence of residential use in the vicinity will unavoidably impact these areas. Allowing pets which prey upon wildlife to run free, misuse of pesticides, herbicides, and fertilizers, and	**F02** Properties which harbor elderberry plants will obtain clearance from the USFWS prior to disturbance of the plants. It is anticipated that the USFWS will require mitigation for disturbance of these plants. **F03** Prior to approval of Tentative Maps, properties identified in this EIR as supporting wetland resources will be required to provide evidence of compliance with Department of Fish and Game policy and Section 404 of the Clean Water Act as administered by the U.S. Army Corps of Engineers. To satisfy Section 404 requirements, each project supporting wetland resources will be required to provide a site specific wetland assessment and mitigation plan. The County will determine, on a project by project basis, the form in which additional information is to be submitted.

over-watering of native oak trees are examples of unintentional impacts which adversely impact natural areas in urban communities.

The inherent incompatibility of residential land use with natural areas cannot be fully resolved. The loss of wildlife habitat is an unavoidable impact which cannot be mitigated to a less than significant level. Although this impact cannot be reduced to a less than significant level, measures are proposed to protect individual resources. Implementation of measure **F01** will provide protection to individual trees, but will not provide adequate mitigation to preserve the woodland habitat. Implementation of measure **E01** will ensure that natural swales continue to exist. Implementation of measure **F03** will provide protection of the wetland habitat on the project site.

[S] Implementation of the project will adversely impact the special status species known to occupy the area. The various raptors and the great blue heron will be impacted by the loss of foraging area. The raptors will also be impacted by a reduction of perch and nesting habitat.

The inherent incompatibility of residential land use with natural areas cannot be fully resolved. The loss of wildlife habitat is an unavoidable impact which cannot be mitigated to a less than significant level. Although this impact cannot be reduced to a less than significant level, measures are proposed to protect individual resources. Implementation of measure **F01** will provide protection to individual trees, but will not provide adequate mitigation to preserve the woodland habitat. Implementation of measure **E01** will ensure that natural swales continue to exist. Implementation of measure **F03** will provide protection of the wetland habitat on the project site.

[M] Implementation of the project has the potential to adversely impact three elderberry bushes which exist in the study area. As habitat for the valley elderberry longhorn beetle, elderberry plants are subject to USFWS protection.

This impact will be mitigated to a less than significant level by of measure **F02**.

IMPACTS	MITIGATION MEASURES

AIR QUALITY

M Construction activity will produce short term air quality impacts. The greatest short term air quality impact associated with development will be dust generation produced during grading and land development activities. Assuming that development of the study area takes 10 years, and that half of the development time involves grading and/or activities which require disturbance of the soil, there would be an average of 5 acres per month being disturbed. Assuming the EPA referenced dust generation rate of 1.2 tons/acre/month, development would be expected to generate approximately 6 tons of dust per month.

This impact will be mitigated through implementation of mitigation measures **G01** and **G02**.

G01 Sprinkling of graded or similarly exposed areas will be performed at least twice a day during construction. EPA estimates indicate that this action can reduce dust emissions by up to 50% (EPA-450/3-74-036a: 1974).

G02 Consistent with the County Ordinance 3983, grading will not be permitted during periods of high winds.

M Project generated traffic will contribute to local and regional air contaminant levels. Predicted emissions from project generated traffic include 120 tons of carbon monoxide, 1438 tons of hydrocarbons, and 148 tons of nitrogen oxides per year. The volume of ozone which will form as a consequence of project traffic emissions is assumed to be comparable to the predicted production of hydrocarbons. These emissions will exacerbate regional efforts to reduce carbon monoxide, particulate, and ozone levels, compounding the nonattainment status for ozone.

This impact will be reduced to a less than significant level by measure **G03** and **G04**.

G03 The most recent amendment of the California Clean Air Act stipulates that each APCD designated as a nonattainment area is required to prepare and submit a plan for attaining and maintaining the State Ambient Air Quality standards. The El Dorado County APCD is currently preparing the required plan which is due to the ARB no later than June 30, 1991. The plan will identify measures required to facilitate attainment of the ambient air quality standards. Individual projects within the Bass Lake study area will comply with the requirements of the attainment plan.

G04 Individual projects will provide turn out lane(s), bus stop shelters, or other infrastructure necessary to facilitate extension of transit services to the study area. The location, number, and design of these facilities will be established based on consultation with RT and the El Dorado County Department of Public Works. The required facilities will be identified on Tentative Maps and identified as conditions of approval of the various projects.

M Use of gas furnaces and wood-burning devices will produce air contaminants, contributing to the degradation of local air quality. Operation of gas furnaces is predicted to generate 127 pounds of particulates, 31 pounds of sulfur dioxide, 5,077 pounds of nitrogen dioxide, 1,015 pounds of carbon dioxide, 269 pounds of non-methane hydrocarbons, and 137 pounds of methane hydrocarbons. Wood-burning devices are predicted to produce <1.0 ton of PAH, 846 tons of carbon monoxide, and 71 tons of particulates per year.

Aside from continuing technological improvement, mitigation to reduce furnace emissions has not been identified. Mitigation of wood stove emissions is provided by the Federal government through regulation of design and sale of wood stoves.

NOISE

[M] The most significant short term noise impact generated by development of the study area will be that produced by construction activities. As shown in Table H2, these noise levels can be expected to range from 70 to 95 dB(A). If blasting is utilized, noise in excess of 100 dB(A) within 50 feet of detonation would be expected.

This impact will be mitigated to a less than significant level through implementation of mitigation measure H01.

[M] Traffic generated by development of the study area will contribute to noise levels along roadways. Assuming buildout of the study area in 2010, the Federal Highway Administration (FHWA) Traffic Noise Prediction Model predicts that the 65 dB Ldn noise contour will be 858 feet from the centerline of Highway 50. Within the study area, the predicted distance to the 65 dB Ldn contour will range from 138 to 166 feet from the centerline of Bass Lake Road.

This impact will be mitigated to a less than significant level through implementation of mitigation measure H02.

[L] It is probable the development will include establishment of a fire station somewhere in the study area. Residences located near the station would be routinely exposed to siren noise in excess of 100 dB(A). A **Class A** siren approved for use in California must have a minimum sound level output measured at three meters of 120 dB(A) on the axis and 113 dB(A) at 50° right and left. Although such exposure can be extremely disruptive, emergency equipment is exempted from community noise standards.

H01 Construction activity commonly occurs in developed or developing residential areas. Practical considerations and common sense have, in practice, minimized noise impacts to already occupied homes. All construction equipment is subject to established performance regulations which include adequate mufflers, enclosure panels, or other noise suppression attachments as appropriate. However, should the need arise, construction noise is subject to regulation through existing ordinances. In instances where difficulties arise, the County has the authority to restrict the hours that noisy activities can be conducted to 7am–7pm weekdays, and 8am–8pm weekends. In instances of exceptional noise, such as blasting, a special County permit may be required and warning or temporary relocation of neighbors may be necessary.

H02 As individual projects are proposed within the study area, they will be subjected to an environmental review. This review will include the determination of the need for further noise analysis. This analysis will include, as appropriate, an on site noise assessment to determine the actual location of noise contours. In situations where the predicted 65 dB(A) noise contour falls outside of the roadway right of way and within residential property, projects will be required to implement measures to reduce the noise to the recognized standards included in the **El Dorado County General Plan Noise Element**. Typical measures which may be implemented include setbacks, sound walls, and landscaped berms.

In some instances, noise attenuation of individual residential units will be most appropriate. Construction techniques which may be utilized to reduce interior noise levels include in wall insulation, double pane windows, properly sealed joints, and placement of bedrooms away from noise sources. In accordance with State standards, residential housing must attain interior noise levels of less than 45 dB.

IMPACTS	MITIGATION MEASURES
[L] Residential development of the study area will produce in permanent change in the noise environment. Natural sounds which dominate the existing setting will be replaced by more typical residential sounds including stereos, car doors, lawnmowers, children playing, dogs barking, etc. These sounds are typical of the residential environment and generally do not produce violation of adopted noise standards. Domestic noises, such as dogs barking or loud stereos, are regulated through enforcement of nuisance or similar ordinances on an incident by incident basis.	
LAND USE	
[S] Implementation of the required zoning change and subsequent development of residential projects within the study area will produce a substantial change in land use from the present low intensity rural residential and agricultural use to a more urban environment consistent with high density single family residential land use. This is an unavoidable significant impact of project implementation which cannot be fully mitigated.	I01 Mitigation for potential land use conflicts between existing agricultural operations and urban development is provided by the **EL DORADO HILLS - SALMON FALLS AREA PLAN** which designates the most likely affected areas as **(G) MEDIUM DENSITY RESIDENTIAL** with a maximum density of one unit per acre and the concurrent zoning designation of **(AE) - EXCLUSIVE AGRICULTURE** for the southwest portion of the site. The change in land use from low density rural residential to high density urban residential will also be mitigated by the provisions of the **EL DORADO HILLS - SALMON FALLS AREA PLAN** which requires (page 61, M.M. No. 4) "Non-building setbacks of 100 feet from perennial streams; 50 feet from intermittent streams; 150 feet from lakes; and 100 feet from ponds." M.M. No. 2 (page 63) "Riparian areas should be maintained in a natural state. Where alteration is proposed, the Department of Fish and Game will be notified." Within the study area, the **(G) MEDIUM DENSITY RESIDENTIAL** Area Plan land use designation is applied to the riparian area of Carson Creek along the western edge of the site. This classification requires a minimum of one dwelling unit per acre in recognition of the need to leave the riparian corridor relatively undisturbed.
[M] The introduction of high density residential development into the existing low density rural residential setting will increase the potential for land use compatibility conflicts. This will be especially true during the transition period when higher density residential land use will be juxtaposed with existing established land uses. Problems which could occur include flies and odors associated with the keeping of livestock, noise from agricultural machinery at unusual hours, the application of agricultural chemicals in close proximity to homes, loose domestic pets disturbing livestock, and an increased need for security and fencing for agricultural operations.	

IMPACTS	MITIGATION MEASURES
The potential for such conflicts is minimized in the study area by: 1) many of the current parcels are being integrated into the new developments; 2) There are no substantial areas of traditional crop related agriculture adjacent to the study site; and 3) the two areas on the site which could be affected (one at the northwest corner and one at the southwest corner) are both within the one unit per acre portion of the site. The property at the southwest corner also has **(AE) - EXCLUSIVE AGRICULTURE** zoning. This impact will be mitigated to a less than significant level through implementation of mitigation measure **I01**.	
POPULATION & HOUSING	
[S] Utilizing the County Planning Division figure of 3.3 persons per dwelling unit, the 2,901 single family houses anticipated to develop in the study area would, at full buildout, result in a population of approximately 9,573 persons. As discussed in the various sections of this report, this increase in housing and population will result in significant and unavoidable impacts to vegetation and wildlife, air quality, traffic, and water supply. For this reason, the impacts of the population increase itself are considered significant and unavoidable.	No mitigation measures directly associated with the predicted population and housing increases are warranted. Mitigation measures for specific impacts which will result from the projected growth, such as vegetation, wildlife, traffic, air quality, services, and utilities, are discussed under the appropriate sections of this report.
RECREATION	
[M] Using 3.3 persons per household and a recreational space requirement of 5 acres per thousand persons, development of the proposed project will generate a need for approximately 48 acres of recreational space. This need includes both large area-wide facilities	**I02** El Dorado County ordinances require an agreement with the Board of Supervisors as to the manner in which the park requirements are met. This may be land dedication, payment of fees, or a combination of both.

as well as small neighborhood facilities consisting primarily of tot lots with some improvements and open space area for more passive recreational activities.

Recreational impacts of study area development will be mitigated to a less than significant level by implementation of mitigation measure I02.

TRAFFIC

S Proposed development of the Bass Lake study area will contribute to the volume of traffic using area roadways. Without improvements, virtually all facilities will function at unacceptable Levels of Service. Even with implementation of the identified mitigation, Bass Lake Road is predicted to function at LOS F under the full buildout scenario.

This impact will be mitigated, but not to a less than significant level by implementation of measures J01 and J02.

J01 In order to provide a functional area-wide circulation system, all of the roadway and facility improvements identified in the Program EIR will be constructed. Project impacts to Bass Lake Road will be mitigated by 1) acquisition of right-of-way for four lanes through the study area, 2) construction of Bass Lake Road to four lanes with facilities through the study area, and 3) dedication of right-of-way for an additional lane (outside lane of a six lane facility) along the frontage of applicant properties. Project maps will be conditioned to require construction of improvements as they are warranted. Improvements to County roads beyond those provided by this project will be funded through County adopted Roadway Fees.

J02 For the short term, impacts to the Bass Lake Road/Highway 50 interchange will be mitigated by construction of the interim configuration identified by Caltrans. These improvements will be provided by the project applicants. Traffic counts will be performed annually to ensure the interchange operates at an acceptable LOS during peak periods. Complete reconstruction of the interchange will be implemented in a timely manner so as to prevent degradation of peak period LOS to less than acceptable levels. Reconstruction of the interchange will be funded through an Area of Benefit or similar financing mechanism established by County DOT.

PUBLIC UTILITIES

WATER

[S] Assuming an average water use rate of 600 gallons per day per dwelling unit, the 2,901 homes proposed in the study area will require an average of 1,740,600 gallons per day. Using a maximum day demand of 1,500 gallons per household, development in the study area could generate a peak demand for 4,351,600 gallons per day.

Provision of this water will require new transmission and distribution lines from the Gold Hill intertie into the study area, and LAFCO approval of annexation of those properties not currently within the District. Site specific environmental review of the proposed water lines will be required at the time engineering plans are submitted.

This impact must be recognized as significant because, as of this time, EID has indicated that water is not available to serve new development. However, it is anticipated that EID will be able to provide water to new development in the very near future. Since the finding of significance is based on the availability of the resource and the ability of the provider to extend service, this impact could be mitigated to a less than significant level at a future date when/if water is available and if EID indicates that service can be extended. At that time, implementation of measure **K01** is suggested to be sufficient to reduce the magnitude of this impact to a less than significant level.

K01 Projects which are not currently within the service area of EID will be required to petition LAFCO for annexation. LAFCO requires that EID shall provide written documentation stating its ability to provide adequate service to annexing property when it is anticipated that such services will be needed and that provision of such service will not create a significant negative impact on the properties already receiving service. Additionally, the letter will identify when the service is projected to be needed and the plan which the District has developed for expanding its service capacity to meet the needs of the annexing territory at that time. Pursuant to Resolution 90-39, EID can issue water meters only when water is available for service. Tentative maps for each of the individual projects within the study area will be conditioned to prevent the recording of a final map until a firm commitment of water is available from EID.

IMPACTS	MITIGATION MEASURES
SEWER	
M At the rate of 300 gallons of wastewater per day per dwelling unit, the 2,901 homes anticipated to be developed within the study area would require treatment for 870,300 gallons per day. At the peaking factor of 2.5 for wet weather conditions, the peak demand would be for treatment of 2,175,750 gallons per day. Provision of this amount of treatment will require extension of new collection lines and, coupled with other anticipated development in the vicinity, will require expansion of treatment facilities. This impact will be mitigated to a less than significant level through implementation of mitigation measure **K02**.	**K02** Presently proposed capacity with programmed expansions are adequate to handle anticipated growth in the near term, as described above. For the long term, other options will need to be examined by EID to assure that capacity for ultimate needs is available. Developers will enter into the necessary service agreement(s) with EID to facilitate extension of service. Included in these agreements will be developer installation of conveyance facilities in accordance with EID requirements. Parcels not already within the District will require annexation.
GAS AND ELECTRICITY	
M Assuming an average use of 175 therms per month, the 2,901 homes anticipated at full buildout of the study area would use 507,675 therms per average month. Assuming an average monthly use of 1,000 kilowatt hours of electric power per home, the 2,901 homes would utilize an average of 2,901,000 kilowatt hours per month. If any homes do not use natural gas, but rely upon electric power for heating, their electric use could be double the average. This impact will be mitigated to a less than significant level through implementation of mitigation measure **K03**.	**K03** Developers will need to enter into the required agreements with PG&E for the provision of services to the project in accordance with PUC regulations. Developers will need to be responsible for relocation or rearrangement of the existing gas and/or electric facilities required to facilitate each development.

TELEPHONE

[M] No unusual problems are anticipated with the provision of telephone service to the project site.

This impact will be mitigated to a less than significant level through implementation of mitigation measure **K04**.

K04 In accordance with Pacific Bell and PUC regulations, developers will be responsible for any relocation costs of existing overhead telephone facilities, and will provide the underground supporting structure to each lot.

PUBLIC SERVICES

POLICE SERVICES

[M] Assuming 3.3 persons per household, and the objective to provide at least 1.0 officer per 1,000 residents, development of the study area will generate the need for approximately 10 new officers.

This impact will be mitigated to a less than significant level through implementation of mitigation measure **K05**.

K05 The Sheriff's Department is funded through the County General Fund. The County Board of Supervisors has the responsibility to allocate funds to maintain an adequate level of service.

FIRE PROTECTION

[S] According to Fire Department officials, construction of a new fire station will be required to serve development in the Bass Lake Road study area. The most likely location for a new station will be on the west side of Bass Lake Road. The new station will require at least one acre of land, which could be donated by developers or purchased. The estimated cost of the structure and improvements ranges from $400,000 to $500,000. Equipment costs will include at least one pumper truck ($200,000) and one water tender ($120,000). Annual operating expenses for six staff will be approximately $300,000.

Without designation of a new station site, this impact cannot be mitigated to a less than significant level. Capital costs to cover construction of a new station and equipment will be provided by mitigation measure **K06**.

K06 The El Dorado Hills Fire Department is supported by development fees and is a self-supporting enterprise fund with a property tax base. For this reason, there will be no net impact on the County General Fund. The development fee of $308 per dwelling unit will generate $893,508 which should cover capital costs for structure and equipment for the needed new station.

IMPACTS	MITIGATION MEASURES
SOLID WASTE	
M Assuming each home generates an average of ±60 gallons of solid waste per week, the 2,901 homes within the study area will generate 174,060 gallons of solid waste per week. This impact will be mitigated to a less than significant level through implementation of mitigation measure K07.	K07 El Dorado Disposal service has indicated that pickup services can be extended to the new development in the study area. The El Dorado County Environmental Management Department has indicated that, although capacity at the Union Mine Disposal Site is presently limited to two years, actions are underway to provide expansion of the disposal site as needed.
SCHOOLS	
S The project is predicted to generate approximately 1,131 elementary students, 348 middle school students, and 667 high school students. These students will generate a need for approximately 2.3 elementary schools, 46% of a middle school, and 44% of a high school.	K08 Consistent with the pending fee ordinance, each new home in the study area will be assessed a school fee of $7,198. The fee will be paid at the time of issuance of building permit. As outlined in the ordinance, Stirling fees are included in the fee, and dwelling units which pay the new fee will receive credit for their Stirling fee obligation.
As a matter of policy, the Buckeye School District does not consider development impacts to be resolved to a less than significant level until needed sites and financing are identified. Implementation of mitigation measure K08 provides the necessary financing mechanism. Preliminary school sites are identified on the Circulation and Facilities plan included in Appendix F, but these sites have not been reviewed or accepted by the School District. Although no unusual difficulties are anticipated with selection of a school site, this impact cannot be considered mitigated to a less than significant level until the needed sites are accepted by the School District. Mitigation measure K09 is proposed to minimize adverse impacts to existing school facilities.	K09 The ability to provide service to new students can only be determined by the respective School Districts on a project by project basis. Projects desiring to proceed prior to the availability of new school(s), must obtain an "ability to serve" letter from the school districts. The school districts are responsible for determining the number of students that can be accommodated in available facilities prior to construction of a new school(s).
FISCAL	
L Development of the study area will result in a net positive fiscal impact to El Dorado County.	No mitigation is required.

VISUAL AND AESTHETIC RESOURCES

[S] The major visual impact which will occur as a consequence of development of the study area will be the complete change of character from the existing rural setting to that of an urban residential community, not unlike Cameron Park or El Dorado Hills. Contributing to this change will be removal of native trees and vegetation, the introduction of domestic lawns and landscape species, grading and "stair stepping" of the hillside to create level home sites, and the addition of roofs, pavement, metal, glass, painted surfaces, etc. to the visual environment. In most cases, the large native oak trees on the ridge will still define the horizon line in that direction, but depending upon vantage point, roofs will infringe upon the otherwise natural horizon line. At night the visual environment will be dominated by artificial lighting from homes.

This is an unavoidable impact associated with development, and although it cannot be mitigated to a less than significant level, some mitigation will be realized through implementation of mitigation measures **E01**, and **I01**.

ARCHAEOLOGIC AND HISTORIC RESOURCES

[M] Implementation of the project carries the potential for disturbance of the historic cemetery (Site 1) located within the study site.

This impact will be mitigated to a less than significant level by implementation of mitigation measure **NO1**.

NO1 The historic cemetery (Site 1) should be preserved intact and in place. If relocation or disturbance of any kind is contemplated, specific legal requirements must be met. Such action would require research into the significance and specific history of the cemetery and its occupants. Grave relocation should be done in consultation with living relatives.

[M] Implementation of the project carries the potential for disturbance of the identified historic and prehistoric sites (Sites 2-5) which occur on the site. As stated in the appended archaeological report, these sites should be preserved if at all possible. If not, their recordation is deemed sufficient mitigation.

IMPACTS	MITIGATION MEASURES
[M] Considering the sensitivity of the vicinity, it is possible that undiscovered sites of historical or archaeological significance could exist in the study area. Construction activities have the potential for disturbance of any such sites. This impact will be mitigated to a less than significant level by implementation of mitigation measure NO2.	NO2 Construction workers will be informed of the archaeologic history of the study area, and instructed as to the types of materials and/or artifacts which would be indicative of sensitive sites. If any presently unknown artifacts or sites are discovered during construction, all work in the immediate vicinity of the find should be halted until a qualified archaeologist has an opportunity to evaluate the find and recommend appropriate action.

III. PERSONS, ORGANIZATIONS, AND PUBLIC AGENCIES COMMENTING ON THE DRAFT PROGRAM EIR

The following persons provided comments on the Draft Program EIR during the Planning Commission Meeting of August 8, 1992. The minutes of that meeting are attached as Appendix A.

First Vice Chairman Harris, El Dorado County Planning Commission
Commissioner Osborne, El Dorado County Planning Commission
Commissioner Griffiths, El Dorado County Planning Commission
Commissioner Goltz, El Dorado County Planning Commission
Bill Pearson, El Dorado County DOT
Bill Holliman, El Doroado Hills Development Company
Al Franzoia, Benson & Sedar
Jack Tyler, El Dorado Hills Community Services District
Harriett Segel, El Dorado Hills/Salmon Falls Advisory Committee

The following persons submitted written comments on the Draft Program EIR. Copies of their correspondence are included in this document as Appendix B. Comments and responses are presented in Section IV of this document.

Robert J. Reeb, General Manager, El dorado county Water Agency, Letter dated July 25, 1991.

Craig M. Sandberg, Hackard Taylor & Phillips representing the Chas Company. Letter dated August 8, 1991.

Harriett B. Segel, Secretary, El Dorado Hills/Salmon Falls Area Plan Advisory committee. Letter dated August t, 1991.

Jack Tyler, Planning Director, El Dorado Hills Community Services District. Letter dated July 3, 1991.

Captain Charles Browne, El Dorado Sheriff's Department. Inter-Office Memo dated July 3, 1991.

Sandy Gesnard, Environmental Planner, California Department of Transportation, Division of Aeronautics. Letter dated July 15, 1991.

Robert M. O'Loughlin, Chief, Planning Branch C, California Department of Transportation, District 3. Letter dated August 8, 1991.

Jim Ambercrombie, District Manager, Pacific Gas & Electric Company. Letter dated July 29, 1991.

Lewis W. Archuletta, Planner, El Dorado Irrigation District. Letter dated Ausust 5, 1991.

Norman R. Menzie, Assistant Superintendent, Staff Services, El Dorado Union High School District. Letter dated August 8, 1991.

Wayne S. White, Field Supervisor, United States Department of the Interior, Fish and Wildlife Service. Letter dated August 6, 1991.

Craig McKibbin, Deputy Director of Engineering, El Dorado County Department of Transportation. Interoffice Communication dated August 5, 1991.

Scott Chad, Director, El Dorado County Department of Transportation. Interoffice Communication dated June 11, 1991.

Craig McKibbin, Deputy Director of Engineering, El Dorado County Department of Transportation. Letter dated April 4, 1991.

Douglas P. Boyle, Assistant in Civil Engineering, El Dorado County Department of Transportation. Interoffice Memorandum dated March 11, 1991.

William G. Holliman, Jr., El Dorado Hills development Company. Letter dated August 8, 1991.

Margaret E. Wilkenfield, Acting Executive Officer, Local Area Formation Commissionm, El Dorado county. Letter dated August 7, 1991.

Thomas J. Yowell. Letter dated August 22, 1991.

Mr. and Mrs. LeRoy W. Nelson. Letter dated July 8, 1991.

Harriett B. Segel. Letter dated August 29, 1991.

David C. Nunekamp, Deputy Director, Permit Assistance, Govenor's Office of Planning and Research. Letter dayed August 29, 1991.

Sharon Johnson. Letter dated October 17, 1991.

IV. COMMENTS AND RESPONSES

GEOLOGY AND SOILS

COMMENT: On page B-2, it is expected that County DOT will enforce grading requirements. Our concern is longer ranged, i.e., the effect of runoff from the developed areas and the need for flood retention ponds and silt basins to accommodate that runoff, so it does not adversely affect District southerly and westerly areas along Carson Creek. EDHCSD intends park and recreation development nearby these southerly drainage corridors in years to come.

COMMENTOR: Jack M. Tyler, Planning Director, EDHCSD.

RESPONSE: Runoff and water quality impacts and mitigation measures are discussed in Section E of the Draft EIR. Proposed mitigation measures are identified on pages E-10 and E-11.

HYDROLOGY AND WATER QUALITY

COMMENT: If the single proposed flood retention pond mentioned on page B-3 is the sole mitigation measure for the whole of the area, it seems to be mis-sited to do the job needed. Further study and additional flood and silt basins need to be considered before these issues are considered under control.

COMMENTOR: Jack M. Tyler, Planning Director, EDHCSD.

RESPONSE: As discussed in the Hydrology section of the Draft EIR (Section E) a preliminary drainage study has been prepared for the study area by Cooper, Thorne, and Associates. That analysis determined that detention of ±40 acre-feet will be required. Sufficient detention can be provided at the single location identified in the EIR. However, the various developers of properties within the study area may elect to construct several smaller facilities rather than a single larger pond. As shown in on the Circulation and Public Facilities Plan included in Appendix F of this document, current proposals include two detention areas. All drainage plans and facilities will be subject to El Dorado County DOT review and approval.

COMMENT: Page F-18 (mitigation measures **E01**) states that installation of closed storm drains (verses vegetated swales) is not proposed. We recommend that the final EIR be amended to state that drainage shall be conveyed in vegetated swales, closed storm drains shall not be installed and that all culverts (for road crossings only) shall be designed to allow the passage of aquatic organisms.

COMMENTOR: Wayne S. White, Field Supervisor, Fish and Wildlife Service, Fish and Wildlife Enhancement, Sacramento Field Office.

RESPONSE: The proposed area-wide drainage system will utilize as much of the natural drainage network as possible. Mitigation measure **E01** is in error where it indicates that storm drains will not be installed. Discussion with project engineers and developers indicates that the natural drainage network will be protected and utilized as corridors for the conveyance of runoff. However, storm drains will be required to convey runoff through developed areas, beneath streets, under fences, etc. Consequently, it is accurate to indicate that minor swales will be replaced by storm drains intended to collect runoff and route it to the larger protected drainages. Overall, it is estimated that 80% of the natural drainages will be preserved. Consequently, mitigation measure **E01** has been reworded to read as follows:

E01 Individual projects within the study area will adhere to the mitigation identified in the El Dorado Hills Salmon Falls

Area Plan which specifies "*Non-building setbacks of 100 feet from perennial streams; 50 feet from intermittent streams; 150 feet from lakes; and 100 feet from ponds, should be observed as recommended by the County Health Department.*" Drainage shall be conveyed in vegetated corridors, and installation of storm drains will be restricted to minor swales where such systems are required to convey runoff to the protected corridors. Major drainages will be maintained as vegetated corridors. Except for limited measures to minimize erosion potential (bank stabilization, planting of native compatible grasses to enhance cover, etc.), no development will be permitted within these corridors. All culverts will be designed to allow the passage of aquatic organisms.

COMMENT: The Hydrology section of the EIR states that all of the project located in the Deer Creek watershed is located in subwatershed 40 of the Cameron Park watershed. A portion of the proposed Hollow Oak Subdivision is in subwatershed 35 of the Cameron Park watershed and is not mentioned. The increasing number of residents adversely effected by annual flooding problems in subwatershed 35 warrant a detailed study of the effects of additional runoff within the subwatershed. the capacity and existing condition of each of the following crossing s should be included in the study: Knollwood Drive, Ravenwood Lane, Wentworth Road, Kimberly Road, Country Club Drive, Cambridge Road, and U.S. 50.

COMMENTOR: Douglas Boyle, El Dorado County DOT

RESPONSE: [This response was prepared by Cooper, Thorne & Associates] The Cambridge Road and U.S. 50 crossings in question are discussed on page E-3 if the Draft program EIR. The remaining crossings have been field checked for size and condition, then analyzed for maximum capacity using future projected storm flows.

Knollwood Drive, due to heavy vegetation and standing water, was visually identified and sized as twin 27" x 60" corrugated culverts, with a possible headwater depth of 7'. The maximum capacity of this crossing is 210 cfs, if headwater is fully developed. The developed discharge had been determined to the 158 cfs. The crossing at Ravenwood Lane was designed to carry a small amount of flow. The location of Ravenwood Lane splits the drainage channel into two separate flows, The larger flow continues down through the naturally drained channel while a splinter flow is routed into a roadside ditch and crosses Ravenwood Lane with a 24" corrugated culvert. Due to the unknown quantity of flow diverted from the main drainage channel into the roadside ditch we were unable to verify if the cross culvert could handle the 100 year design flow.

The crossing at Wentworth Way consists of twin 54" corrugated culverts with a maximum possible headwater depth of 7.33 feet. The actual 100 year design flow of 381 cfs exceeds the

culverts capacity of 315 cfs. Kimberly Road's crossing was calculated to have sufficient size (60") and capacity (400 cfs) to handle the 400 cfs generated by the 100 year storm. Again, to obtain a 400 cfs discharge requires a fully developed headwater. Country Club Drive was the final crossing analyzed in this study and consists of twin 4' x 6' box culverts. Crossing capacity is 108 cfs with a potential headwater depth of 5'. This maximum capacity is well under the actual 100 year design flow of 470 cfs.

The calculated culvert capacities assume the maximum headwater depth will be contained just below the point of roadway overflow. The channels are in poor condition and need to be cleaned out to increase their carrying capacity. The total shed area is 745 acres. The Bass Lake Road study Area contributes 20 acres, which represents 2.6% of the total contributing area. While the Bass Lake Area does impact the watershed, its percentage is very low when taken in context with the entire shed area.

The study area could adequately mitigate its impacts by providing detention.

COMMENT: The hydrologic study was based on SCS and Army Corps formulas for catchment lag time. A more detailed watershed analysis should be required before the design of any detention or retention facilities begins.

COMMENTOR: Douglas Boyle, El Dorado County DOT

RESPONSE: As individual projects are presented to the County for consideration, staff will determine the need for additional analysis. It is anticipated that each project will be required to provide sufficiently detailed analysis to demonstrate how that project's runoff will be handled, and to allow evaluation of proposed drainage facilities.

COMMENT: This project involves the development of over six-hundred acres with nine subdivisions for a total of approximately fourteen units. The impacts of this development, from a hydrology and water quality standpoint, are very well addressed in this document.

COMMENTOR: Douglas Boyle, El Dorado County DOT

RESPONSE: Since this is a program level document, additional information can be required by County staff as individual projects are presented for consideration.

COMMENT: Development should not be allowed to mitigate the impacts individually, but rather, adhere to conditions set by an area-wide drainage plan as recommended by Mitigation Measure **E02**. The operation and maintenance of the system should be financed through the establishment of an Area of Benefit set up by the developers. In addition, drainage and

maintenance easements should be established with access points to make proper maintenance possible. Similarly, individual property owners should not be allowed to mitigate the water quality impacts, but should instead be required to participate in an area-wide mitigation system.

COMMENTOR: Douglas Boyle, El Dorado County DOT

RESPONSE: There is currently no mechanism in place which mandates development of an area-wide drainage network. Under the existing system, individual projects have the option of presenting project specific drainage and facility plans to the County for approval. The County may choose to adopt an area-wide drainage and water quality protection network, and require that individual property owners participate.

COMMENT: The County should look into developing, adopting and implementing a County-wide Best Management Practices policy to gear up for the EPA NPDES requirements which will be printed in October 1992.

COMMENTOR: Douglas Boyle, El Dorado County DOT

RESPONSE: This recommendation does not specifically address the Bass Lake Road EIR, but does have bearing in that future projects will be required to comply with the EPA requirements.

VEGETATION AND WILDLIFE

COMMENT: More attention needs to be given to the mitigation of wildlife habitat degradation. The County has ample opportunity at this point to cause dedication of more open space parcels to mitigate the impacts anticipated by western slope development. The El Dorado Hills Specific Plan open space program more nearly mitigates such impacts and may well serve as a model for the County to point to for such planning.

COMMENTOR: Jack M. Tyler, Planning Director, EDHCSD.

RESPONSE: On page F-16, the Draft EIR accurately describes the potential impact to habitat that would result from implementation of the proposed project. Pages F-17 through F-20 describe mitigation measures available to reduce this impact. As discussed, the predicted reduction in habitat is suggested to be an unavoidable consequence of development.

COMMENT: On page F-18 of the DEIR, mitigation measure F03 requires evidence of compliance with Department of Fish & Game policies and Clean Water Act requirements. Although this is a reasonable requirement, the mitigation measure continues on to require that a wetland assessment and mitigation plan be submitted with each project as a Supplement to the EIR. The adoption of this wording in the mitigation measure presupposes the necessity to prepare a Supplement to the EIR which, of course, requires expensive and time consuming publication and circulation. There is no evidence that each project will have significant wetlands impacts triggering the requirements for a Supplement to the EIR. The mitigation should be limited to complying with the applicable agency regulation and providing that information to the County at the time of map approval.

COMMENTOR: Craig M. Sandberg, Attorney at Law, Hackard, Taylor & Phillips representing the Chas Company.

RESPONSE: The comment is not entirely accurate. Mitigation measure **F03** as presented on page F-18 of the Draft Program EIR specifies that "*Prior to approval of Tentative Maps, properties identified in this EIR as supporting wetland resources will be required to provide evidence of compliance with Department of Fish and Game policy and Section 404 of the Clean Water Act as administered by the U.S. Army Corps of Engineers.*" A reconnaissance level wetland assessment has already been performed for the entire study area. Only those properties which are known to support wetland resources would be required to provide the additional compliance requirements for wetlands. The commentor is correct in asserting that the DEIR assumed each of these projects would be required to prepare a Supplement to the EIR. In actuality, the County will determine, on a project by project basis, the form in which any additional information is to be submitted. The mitigation measure has been reworded to reflect the stated concern.

COMMENT: There are up to 15 acres of wetlands present in the Study Area. All of these could be lost or adversely impacted with development of the Bass Lake areas. As mitigation, the EIR states that properties supporting wetland resources will be required to provide evidence of compliance with Department of Fish and Game policy and Section 404 of the Clean Water Act. The mere compliance with policies and acts does not constitute mitigation. Therefore, we cannot concur with the statements that implementation of measure **E01** will ensure that natural swales continue to exist, or that implementation of measure **F03** will provide protection to the wetland habitat on the project site.

COMMENTOR: Wayne S. White, Field Supervisor, Fish and Wildlife Service, Fish and Wildlife Enhancement, Sacramento Field Office.

RESPONSE: When assessing the adequacy of mitigation, there is no such thing as "mere" compliance. Each project either complies or is in violation. In this instance, compliance with the Fish and Wildlife Service's Mitigation Policy is required to ensure that adequate mitigation is formulated. As discussed in the Program EIR, a reconnaissance level wetland assessment has already been performed for the entire study area. This assessment provides the basis for avoidance and minimization of impacts during subsequent preparation of tentative maps. Mitigation measure **F03** clearly states: "...each project supporting wetland resources will be required to provide a site specific wetland assessment and mitigation plan". A "program level" mitigation monitoring plan has been prepared, and is attached to the Final EIR.

COMMENT: For unavoidable impacts, we recommend that the final EIR include a "program" mitigation plan to which all parcel owners must comply. The plan should include the following elements: mitigation ratio criteria to assure there is no net loss of acreage, functions or values, adequate buffers, success criteria (or performance standards), monitoring and contingency plans, identification of an entity that will manage the avoided and mitigation areas, and assurances of funds for the long term maintenance of the site(s).

COMMENTOR: Wayne S. White, Field Supervisor, Fish and Wildlife Service, Fish and Wildlife Enhancement, Sacramento Field Office.

RESPONSE: A "program level" mitigation monitoring plan has been prepared for the for the Bass Lake Study Area, and is attached to the Final EIR. Because the project proposes development of a presently undeveloped area, it is impossible to achieve true "no net loss". Mitigation identified in the Program EIR requires preparation of wetland mitigation plans in conjunction with project maps. The major corridors which are to be preserved are identified in the EIR, and subsequent

projects will be subject to the policies established by this EIR. Tree preservation policies are established by the EIR.

COMMENT: Pages B-17 and F-20 suggest that the County provide protection of riparian habitat through establishment of a park or designated open space area. We recommend that protection of the riparian area be mandatory and part of the conditions of the Final EIR. The area should be dedicated in perpetuity as a wetland/wildlife preserve. In addition, although the EIR states on Page F-8 that the on-site seeps are of unique value to wildlife, there is no mention of their protection anywhere in the document. We recommend the seeps also receive mandatory protection.

COMMENTOR: Wayne S. White, Field Supervisor, Fish and Wildlife Service, Fish and Wildlife Enhancement, Sacramento Field Office.

RESPONSE: The discussion on page F-20 is provided under the heading of **PLANNING CONSIDERATIONS**, and is not intended to imply that the riparian area may be developed, but rather that designation of the habitat as a park or open space might serve as an appropriate means of implementing protection. Mitigation measure **F03** states: "...each project supporting wetland resources will be required to provide a site specific wetland assessment and mitigation plan". The seeps are classified as wetlands and will be addressed by project specific mitigation plans.

COMMENT: Pages F-7 and F-8 imply that intermittent drainages have little wildlife value because of the seasonal nature of water and forage, and that such drainages do not provide water and forage when most needed. We cannot concur, such drainages are valuable because they also provide resting and nesting areas for wildlife. Many species of wildlife (specifically amphibians and other aquatic organisms) require seasonal water to complete their life cycles.

COMMENTOR: Wayne S. White, Field Supervisor, Fish and Wildlife Service, Fish and Wildlife Enhancement, Sacramento Field Office.

RESPONSE: It is widely accepted that intermittent drainages can provide valuable habitat for wildlife, and without the benefit of site specific data, it would generally be presumed that the intermittent drainages in the study area would be of substantial value to wildlife. However, survey of the site by Sugnet & Associates indicated that the intermittent drainages in question are relatively insignificant. The information presented in the Draft Program EIR is taken from the wetland/biotic assessment, and is considered to be the most accurate information compiled regarding the quality of habitat in the study area. Page 16 of the **Preliminary Assessment of Wetland/Biotic Resources**, indicates that the "*intermittent drainages provide relatively little wildlife value.*"

COMMENT: Figure F1, page F-2, of the program EIR needs to be revised. The location of the trees near Bass Lake Road in the vicinity of the proposed road realignment should be revised to match tree locations identified in Proposed Bass Lake Road Realignment prepared by Gene Thorne and Associates.

COMMENTORS: Harriett B. Segel, Secretary, El Dorado Hills/ Salmon Falls Area Plan Advisory Committee
Harriett B. Segel, 2067 Wood Mar Drive, El Dorado Hills
Thomas Yowell, 3060 Stonehill Road

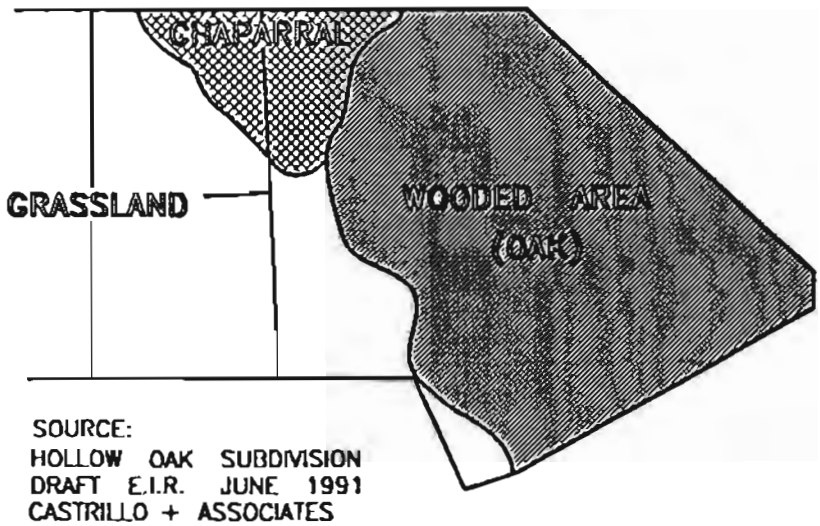
RESPONSE: Figure F2 was prepared using 1990 aerial photography of the study area. Because of scale, the figure is intended to only identify the general distribution of wooded areas within the study area. The Program EIR has been prepared as an area wide planning tool. Individual projects will be required to provide additional information in conjunction with submittal of development proposals. The location of individual trees must be identified on Tentative Maps prior to approval of those maps by the County.

COMMENT: The eastern end of the Hollow Oak subdivision should be designated as Oak Woodland instead of Chaparral.

COMMENTOR: Harriett B. Segel, Secretary, El Dorado Hills/ Salmon Falls Area Plan Advisory Committee

RESPONSE: This comment is correct. The habitat is incorrectly identified in the Biotic Resources report appended to the EIR, and consequently, misidentified in the body of the EIR. The correct habitat distribution on the eastern end of the Hollow Oak subdivision is depicted in Figure 2.

FIGURE 2
CORRECTION TO HABITAT MAP



SOURCE:
HOLLOW OAK SUBDIVISION
DRAFT E.I.R. JUNE 1991
CASTRILLO + ASSOCIATES

COMMENT: I'm concerned that the development around Bass Lake will result in the loss of the lake as winter habitat for bald eagles. The bald eagle is both Federal and State listed as an endangered species in California. While the loss of this small lake as winter habitat for bald eagles may be considered individually insignificant by some, I believe the loss of any bald eagle habitat in California is cumulatively significant and unacceptable. I'm not aware how past EIRs for projects around Bass Lake addressed the potentially significant impact on bald eagles, but I request that all future EIRs be required to address this issue.

COMMENTOR: Sharon Johnson

RESPONSE: Use of the project vicinity by bald eagles is discussed on page F-15 of the Draft Program EIR. Loss of wildlife habitat is recognized as an unavoidable consequence of any development, and the EIR identifies this impact, both locally and cumulatively, as significant and unmitigatable. However, based on information from the U.S. Fish and Wildlife Service, development of the study area would not be expected to significantly impact bald eagles. In response to Ms. Johnson's concerns, El Dorado County staff contacted the U.S. Fish and Wildlife Service regarding the potential impacts to local eagle populations. Response from Mr. Phil Detrich of the U.S. Fish and Wildlife Service indicates that oak trees within the study area provide "isolated foraging roosts". Although these roosts are not essential habitat, protection of them would be beneficial to the eagles. Mitigation measure **F01**, presented on page F-18 of the Draft Program EIR, provides the mechanism for such protection. According to Mr. Detrich, the more significant "day roosting", and very significant "night roosting" habitat is likely located adjacent to Bass Lake. Retention of those habitats would be most beneficial to the eagles. Those habitats are situated outside of the project area. When land use proposals are submitted for properties which support valuable eagle habitat, the County would have the ability to impose conditions requiring protection of that habitat. Because alternative winter foraging sites exist nearby (Folsom Lake, Jenkinson Reservoir, and other foothill reservoirs), the Bass Lake Road Study Area project would not represent a significant impairment of essential behavior patterns (i.e. feeding at Bass Lake), and therefore, would not trigger the Endangered Species Act.

CLIMATE AND AIR QUALITY

COMMENT: On page B-6 in the Summary, impacts associated with gas furnaces and wood-burning devices are identified as "mitigated" but as "Less Than Significant" in the air quality section on page G-18.

COMMENTOR: Craig M. Sandberg, Attorney at Law, Hackard, Taylor & Phillips representing the Chas Company.

RESPONSE: Furnace emissions are relatively minute when compared to wood stove and automobile emissions, and do not typically pose a significant impact. Mitigation of emissions from wood-burning devices has been implemented by the Federal government through establishment of mandated emission standards for new stoves. New homes within the study area will be subject to this regulation, and consequently, the impact is considered "Less Than Significant" without project specific mitigation. The suggested level of significance identified in the Revised Summary Table has been changed to L making it consistent with the Climate and Air Quality section of the Draft Program EIR.

NOISE

COMMENT: Significant landscape and engineering design measures will need to be implemented to mitigate the traffic noise generated along Highway 50 and Bass Lake Road.

COMMENTOR: Jack M. Tyler, Planning Director, EDHCSD.

RESPONSE: Table H4 on page H-10 of the Draft EIR identifies the predicted location of the 65 dB Ldn noise contour along Highway 50 and Bass Lake Road under future conditions. Mitigation measure **H02**, on page H-12, specifies that additional noise analysis will be required of individual projects as appropriate. Typical project specific mitigation which may be implemented includes setbacks, sound walls, and landscaped berms. Since site specific planning is not addressed by the Program EIR, the need for such measures will be determined as individual projects are submitted to the County.

COMMENT: On page B-7, the summary identifies noise resulting from the fire station as "Mitigated", but the text of the report identifies this impact as "Less Than Significant".

COMMENTOR: Craig M. Sandberg, Attorney at Law, Hackard, Taylor & Phillips representing the Chas Company.

RESPONSE: Emergency sirens are exempted from noise standards. In both instances, the text is correct. The box in the summary is in error and should indicate "Less Than Significant". The suggested level of significance identified in the Revised Summary Table has been changed to **L** making it consistent with the Noise section of the Draft Program EIR.

LAND USE

COMMENT: Zoning to reduce the current General Plan allowances for density must be employed to mitigate over-building the land.

COMMENTOR: Jack M. Tyler, Planning Director, EDHCSD.

RESPONSE: The Draft EIR evaluates the potential impacts associated with development of 2,901 homes in the study area. This number of homes represents approximately one-half of the number allowed by the existing General Plan land use designations. Based on the proposals for development which have already been prepared, the actual density of development is anticipated to be even lower, i.e. ±2.2 units per acre.

COMMENT: After studying the project description, we are in favor of the No Project Alternative. If adoption of that alternative is not possible, we would favor adoption of the Lower Density Alternative. We are totally opposed to the Higher Density Alternative. Cameron Park is already being ruined by too much multiple housing, and we are against seeing this high density spread closer to the El Dorado Hills area.

COMMENTOR: Mr. and Mrs. Leroy W. Nelson. 3911 Hills Court. El Dorado Hills. CA. 95630

RESPONSE: One purpose of any EIR is to identify alternatives to the proposed project, and discuss the relative difference in impacts associated with each. On page P-3, the EIR describes the land use setting which would be anticipated with adoption of the No Project Alternative. That description indicates that maintenance of densities consistent with existing zoning would retain a rural large lot setting and tend to retain the existing land use character to a substantially greater degree than would development in accordance with the higher densities called for in the General Plan. On page P-5, the EIR indicates that adoption of the Higher Density Alternative would result in a change in land use from the current rural character to a more typical urban land use. The higher density would likely result in somewhat smaller homes with less open space either on each lot or in common areas. On page P-10, the EIR indicates that adoption of the Lower Density Alternative would contribute to the retention of a more rural large lot setting and tend to retain the existing land use character to a greater degree than would development as anticipated in the proposed project.

COMMENT: We are concerned that the Draft Environmental Impact Report consider the Environmental Impact Report for El Dorado Hills specific Plan, certified by the El Dorado County Board of Supervisors on July 18, 1988, and that it consider the impacts generated by development of the Bass Lake Road Study Area projects on the Specific Plan Area.

COMMENTOR: William G. Holliman, Jr. El Dorado Hills Development Company.

RESPONSE: The Bass Lake Study Area is outside of the area included in the **El Dorado Hills Specific Plan**, and consequently, not subject to the policies of that Specific Plan. As discussed in the Land Use section of the Draft Bass Lake Road Program EIR (pages I-1 through I-9), proposed development of the Bass Lake Road Study Area is consistent with the adopted land uses identified in the **El Dorado Hills-Salmon Falls Area Plan.** All of the impacts associated with development of the Bass Lake Study Area are discussed in the various sections of the report. Where appropriate, specific reference to the El Dorado Hills Specific Plan is provided.

COMMENT: A Development Agreement and Public Improvements Financing Plan were adopted by the Board of Supervisors by Ordinance Number 3999 on January 3, 1989. The relationship between the proposed land uses in the Bass Lake Road Study Area and Specific Plan area should be addressed under the policies of the El Dorado Hills - Salmon Falls Area Plan. Road improvements within the Specific Plan area have been specifically defined as set forth in the Public Improvements Financing Plan and the Specific Plan. Traffic circulation, schools, water, and sewer treatment are several of the issues which might be affected by the provisions of the El Dorado Hills Specific Plan and which, in turn, might have an impact on the Specific Plan area.

COMMENTOR: William G. Holliman, Jr. El Dorado Hills Development Company.

RESPONSE: The proposed development is consistent with all of the policies of the **El Dorado Hills - Salmon Falls Area Plan.** The roadway improvements identified by the **El Dorado Hills Specific Plan** which impact the Bass Lake Area are discussed on pages J-8 and J-9 of the Draft Program EIR. Traffic modelling in the Bass Lake Study Area Program EIR includes traffic volumes and roadway improvements generated by the El Dorado Hills Specific Plan. Potential impacts and mitigation to schools is discussed on pages K-13 through K-20. School impacts and mitigation for the Bass Lake Area is beyond the scope of the El Dorado Hills Specific Plan, and handled directly through the school districts. Similarly, as discussed on pages K-1 through K-9, water and sewer service will be extended in accordance with County and EID policies. Page K-7 of the Program Draft EIR provides a specific discussion of the need for the project proponents to cooperate with the El Dorado Hills Development Company in construction of the off site sewer main from the Bass Lake Study Area to Latrobe Road. One possible alignment of that line could serve both the Bass Lake Area and the El Dorado Hills Specific Plan. That alignment would cross El Dorado Hills Development Company property.

COMMENT: On page C-7, Table C1, the land use designation for APN 108-130-30 needs reconfirming. According to Figure 11 on page I-3 this parcel has a Medium Density designation.

COMMENTOR: Harriett B. Segel, 2067 Wood Mar Drive, El Dorado Hills.

RESPONSE: The commentor is correct, there is an error in Table C1. The appropriate density of APN 108-130-30 should be changed from 5.0 units per acre to 1.0 units per acre. A revised version of Table C1 is included in the Summary section of this report. The resulting change in overall units from 5,603 to 5,495 is relatively minor (less than 2%), and does not significantly alter any of the impacts or mitigation measures identified in the EIR.

COMMENT: The first paragraph on page B-18 continues a discussion of a 'Planning Considerations' about microwave towers. It seems like a more precise definition is needed of 'how far' residences should be located from "sources" than "maximum separation".

COMMENTOR: Harriett B. Segel, 2067 Wood Mar Drive, El Dorado Hills.

RESPONSE: As discussed on page I-6 of the Draft Program EIR: *"With the scientific information now available it is not possible to set a standard or say that any given level is 'safe' or 'dangerous'. Individuals who are concerned may choose to take steps such as moving an electric clock a few feet away from a bedside table or working on their computer key board further away from a screen or perhaps not using some electrical appliances at all. A reasonable public policy at this time is to inform people about what is known and unknown about this matter."*

RECREATION

COMMENT: Proposed mitigation measures for recreation planning and development are insufficient. If present Quimby and County Ordinance efforts stand alone without a capital impact fee being imposed, there will not be sufficient revenue to improve the lands dedicated for recreation purposes. The County and EDHCSD must implement an impact fee program similar to that imposed by School Districts, Fire Districts, and the County's various Departments, who have recognized their own needs and imposed such fees to effect an equitable resolution for them. Additionally, Special Assessment Districts to fund major improvements and/or operation and maintenance costs, must be formed to assure a viable, abiding recreation resource for the new residents of El Dorado Hills.

COMMENTOR: Jack M. Tyler, Planning Director, EDHCSD.

RESPONSE: Recreation impacts and mitigation are discussed in the Draft EIR on pages I-12 through I-14. The Draft EIR indicates that ±48 acres will be required to provide a ratio of 5 acres of park area per 1,000 residents. Mitigation measure I02 identifies that adopted County ordinances exist which provide the means by which the required park acreage is obtained. The assessed impact and proposed mitigation identified in the Draft EIR is consistent with these existing County requirements, and consequently, the impact is suggested to be mitigated to a less than significant level. If additional park acreage or fees are warranted, it is the responsibility of the County to amend the land dedication and/or fee requirements. The manner in which individual projects will comply with the required park dedication is determined by the County at the time each project is submitted to the County. As discussed in mitigation measure I02, this requirement may be satisfied through land dedication and/or payment of fees. The Bass Lake Study area is not within the area covered by the El Dorado Hills Specific Plan.

COMMENT: Parksites should be placed avoiding chaparral and subsurface rock formations to permit grading for playing surface construction. Quimby exactions should be managed to allow for consolidations of area to assure parks of practical size, number and placement. Land and/or a water resource ranging in size from 35-50 acres needs to be assembled in the area to satisfy the need for a community/regional park.

COMMENTOR: Jack M. Tyler, Planning Director, EDHCSD.

RESPONSE: The manner in which individual projects will comply with the required park dedication is determined by the County at the time each project is submitted to the County. As discussed in mitigation measure I02, this requirement may be satisfied through land dedication and/or payment of fees. The County may elect to require consolidation of individual park dedications to obtain a regional facility. Proposed park

locations that have been identified to date are depicted on the preliminary Circulation and Public Facilities Plan included in Appendix F.

COMMENT: Traffic circulation patterns need to consider connecting parks, not only by motorized vehicles, but by bicycle, walking and hiking. Open space corridors can and should be used for buffering subdivisions and villages, providing visual relief from buildings and formalized improvements, but also as corridors for protecting native wildlife and vegetation habitat.

COMMENTOR: Jack M. Tyler, Planning Director, EDHCSD.

RESPONSE: On page I-14, the Draft EIR recommends that recreation and bicycle routes be established between individual projects. As identified in Mitigation Measure **E02** on page E-11 of the Draft EIR, existing swales will be maintained as natural corridors to accommodate drainage and wildlife. Trails are identified on the preliminary Circulation and Public Facilities Map included in Appendix F.

TRAFFIC

COMMENT: El Dorado County has an adopted route for realignment of the segment of Bass Lake Road beginning immediately south of Bass Lake and extending into the Bass Lake Road Program EIR study area. However, in order to avoid the substantial cut that would be required to construct the currently adopted realignment, two alternative alignments of Bass Lake Road north of the project study area are being considered. Both of these alternatives involve shifting the curve to the west to avoid the hillside in question. The Bass Lake Road Program EIR should address this realignment. Figure H3, page H-7, needs to include the proposed alternate routes for Bass Lake Road north of parcel 21.

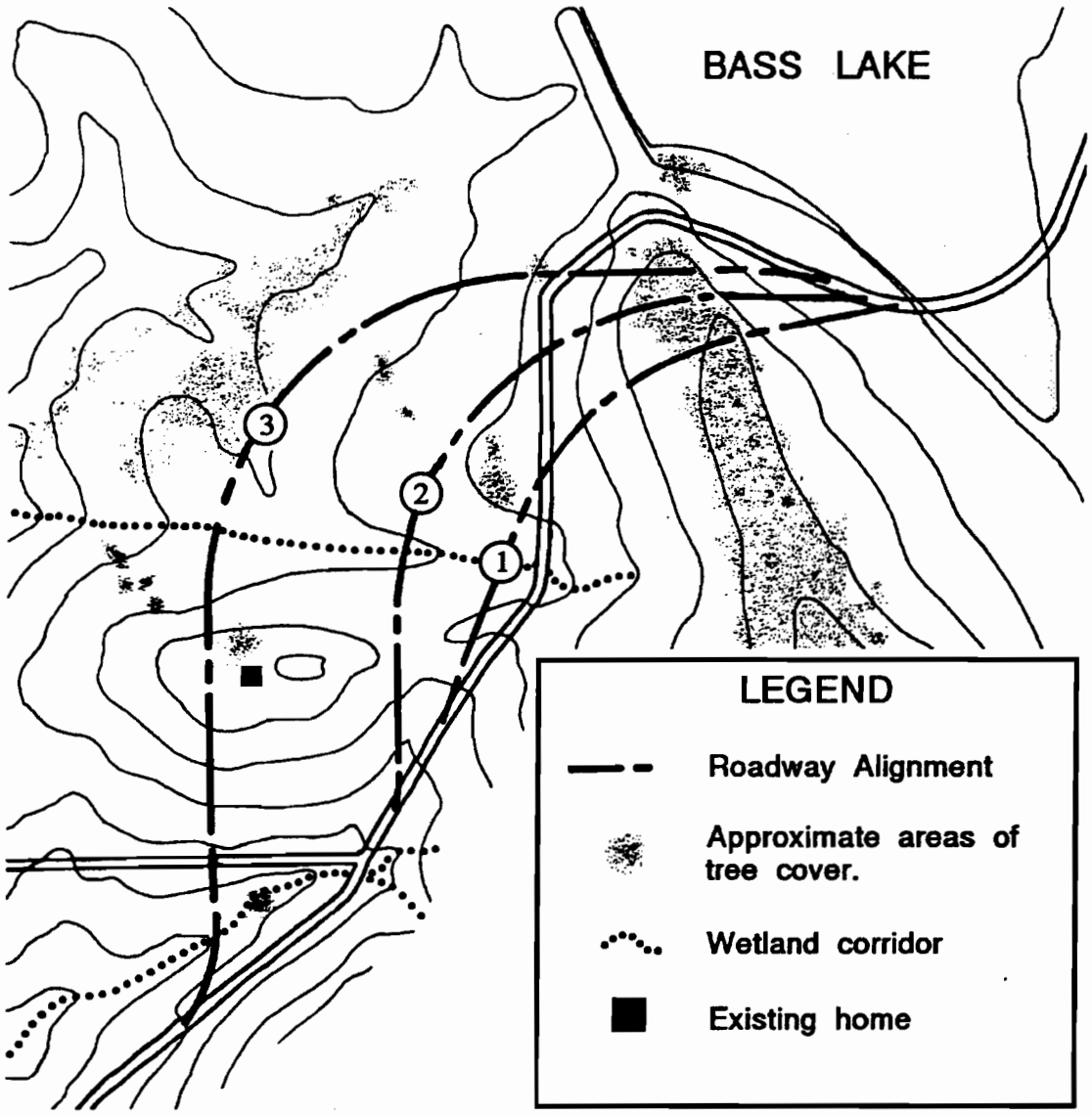
COMMENTOR: Craig McKibbin, El Dorado County DOT
Harriet B. Segel, Secretary, El Dorado Hills/Salmon Falls Area Plan Advisory Committee

RESPONSE: DOT staff has indicated that a new realignment has not been selected, but a corridor within which the eventual realignment will be located has been established. As shown in Figure 3, Route 1 represents the adopted realignment. Routes 2 and 3 are conceptual alternatives.

Ideally, DOT has indicated an that an alignment similar to Conceptual Route 2 is desired. Such a realignment would stay relatively close to Bass Lake Road but would lessen the roadway cut through the ridge on the inside of the curve. However, without some detailed engineering analysis, it is not clear how close to the existing road an alignment can be designed and still avoid a sufficient amount of the cut and maintain an acceptable turn radius to rejoin Bass Lake Road within a reasonable distance. DOT has identified Route 3 as the largest radius curve that would be considered. In order to evaluate all of the area that could be potentially impacted, R. C. Fuller Associates staff investigated the corridor between the adopted alignment and Route 3. The only notable area within the corridor that was not investigated is the homesite located on the knoll west of Bass Lake Road. The field survey did not locate any prehistoric or historic resources within the realignment corridor.

Characteristic of the vicinity, vegetation in the realignment corridor is dominated by open grassland interspersed with native blue and interior live oaks. Concentrations of oak trees exist along the ridge on the inside of the curve, and scattered along the drainage situated northwest of the realignment corridor. By cutting across the ridge, all of the alignments will unavoidably impact oak trees located on the ridge south of Bass Lake. However, reducing the amount of cut at this location is the major reason that alternatives to the adopted alignment are being investigated.

FIGURE 3
CONCEPTUAL REALIGNMENT OF BASS LAKE ROAD



Without an adopted alignment, it is impossible to determine exactly how many trees will be impacted. In order to quantify this impact, R. C. Fuller Associates staff counted trees within a ±100 foot wide corridor crossing the ridge along the approximate centerlines of the conceptual realignments. The number of trees impacted by either alignment would vary from 25-30 trees, virtually all of which are native oaks. Most of the trees range in size from 6" to 24" dbh. However, several trees are stately specimens with diameters larger than 36".

Consensus of the R. C. Fuller Associates field staff is that careful selection of the roadway alignment could avoid or substantially minimize the need to remove any of the large trees. As depicted, Route 3 has the potential to impact additional oak trees situated on the northwest fringe of the realignment corridor. However, County DOT staff indicated that they believed they could tighten the curve on this alignment and avoid the trees. It is presumed that a lone oak situated in the grassland area would be unavoidably impacted by a tightened alignment. In all cases, mitigation can be implemented to reduce potential impacts to a less than significant level. Mitigation will require 1) minimization of the impact through design, and 2) planting of new trees to compensate for those lost during construction.

Two areas of wetland vegetation exist within the corridor. These include a seasonal swale that varies from 5 to 15 feet in width and drains west along the northern boundary of the Bass Lake Road study area, and an intermittent drainage that is approximately 5 feet in width and located on the south side of Hawk View Lane. These wetland areas are discussed in the Wetland/Biotic Resources Assessment included in the Technical Appendices to the Draft EIR. Route 2 would impact only the upper reaches of the northernmost swale. Route 3 would impact both of these wetland areas. In all cases, the impact would be limited to the area necessary to accommodate a roadway crossing. It is estimated this acreage would be less than one acre in size, and could be easily mitigated by creation and enhancement of the wetland corridors above and/or below the roadway crossing. In conjunction with roadway design plans, a wetland mitigation plan will need to be submitted which identifies impacted and mitigation areas.

Depending upon the route eventually selected, realignment of the roadway has the potential to adversely impact the home located within the corridor. As a result of the large amount of open area that exists in the vicinity, it is presumed that the new roadway would be designed to avoid the homesite. However, construction of the roadway in proximity to the existing home would increase noise levels at the home and detract from the existing setting where the home is presently substantially separated from Bass Lake Road. If the roadway is placed near the home, berms and/or sound walls could be constructed to adequately mitigate noise levels. However, such facilities would not be in keeping with the proposed residential character of the area. Consequently, the most appropriate mitigation would be to avoid selection of a roadway alignment which passes any closer than 50 feet to the home. The rural setting will be unavoidably impacted by a realignment that passes too close to the home.

In summary, the proposed realignment can be implemented without resulting in any significant unavoidable impacts. However, mitigation will be required to compensate for the loss of trees and wetland area. Careful route selection must

be implemented to minimize the level of impact requiring mitigation. An unavoidable aesthetic impact would result from selection of a route which does not provide ample distance between the home and the new roadway.

COMMENT: In a recent technical review meeting for a project on the east side of North Bass Lake Road, the need for major collector(s) to enhance traffic flow between the various villages and Bass Lake Road or Country Club Drive was emphasized. If after nearly two years and various versions of project maps, this need is still being expressed; it appears that the County needs to take a firmer role in this matter. One or more major collectors need to be designated for the area so applicants can proceed with their maps.

COMMENTOR: Harriett B. Segel, 2067 Wood Mar Drive, El Dorado Hills.

RESPONSE: The proposed area-wide roadway circulation system is depicted on the preliminary Circulation and Public Facilities Plan included in Appendix F. Since Tentative Maps are not yet available for most of the Study Area, the Program EIR does not address site specific roadway configuration. Roadways will be reviewed by the El Dorado County Department of Transportation (DOT) as individual projects are presented for consideration. DOT will determine the adequacy of street design at that time.

COMMENT: The Draft Program EIR discusses improvements to the interchange as well as additional mainline lanes on Highway 50 in their modeling of future operating conditions, but has not indicated how these improvements are to be funded. These projects are not currently programmed for State funding and we do not anticipate State funding for them in the foreseeable future.

COMMENTORS: Robert M. O'Loughlin, Chief, Planning Branch C, District 3, California Department of Transportation.
Scott Chad, El Dorado County DOT
Craig McKibbin, El Dorado County DOT
Harriett B. Segel, 2067 Wood Mar Drive, El Dorado Hills.

RESPONSE: [This response was prepared by OMNI MEANS] Cumulative development throughout the study area as well as buildout of the Bass Lake Development Plan Area will generate the need for substantial roadway improvements. Roadway improvements adjacent to and within the Bass Lake Plan Area will be required to support development of the area as well as regional roadway and Highway improvements serving the entire vicinity. Development within the Bass Lake Plan Area will need to pay their proportionate share to area-wide improvements. A variety of funding mechanisms will be required to fully finance roadway improvements benefiting both local and regional circulation.

The Bass Lake Plan Area will require participation in specific funding mechanisms as they are developed and become available. This includes participation in the Bass Lake-Salmon Falls Area fee program as well as possible related funding such as Mello-Roos financing. In addition, financing from State and county-wide sources will be required to support cumulative development of the area. This includes potential sales tax revenue funding as well as State Transportation Improvement Program (STIP) funding in the case of Highway 50 and the Highway 50/Bass Lake Road interchange.

Based on previously published figures in the Executive Report to the El Dorado County Board of Supervisors to Establish a Traffic Impact Mitigation Fee and OMNI MEANS' estimates, overall cost of the improvements listed in the traffic Analysis will be approximately $23,752,400. This does not include improvements to Green Valley Road or State Route 50. Of the total $13,370,000 is estimated as the cost of reconstructing the State Route 50/Bass Lake Road interchange. This figure is to be collected from developers according to the Executive Report. Of the remaining $10,382,400, the Bass Lake-Salmon Falls Area fee program includes $5,610,000 to relocate and widen Bass Lake road to four lanes. The remaining $1,464,400 is for signalization and/or geometric improvements to the various intersections. These planning level estimates are presented in greater detail in the following table:

Improvement Costs Estimates

Intersection Improvements:	
Bass Lake Road / Green Valley Road	$ 240,000
Bass Lake Road / Hollow Oak Road	$ 330,000
Bass Lake Road / Stone Hill Road	$ 330,000
Bass Lake Road / Country Club Drive	$ 365,000
Bass Lake Road / Hwy 50 WB Ramps	$ 94,000
Bass Lake Road / Hwy 50 EB Ramps	$ 70,000
Country Club Drive / Bell Ranch Road	$ 35,000
Roadway Widening:	
Bass Lake Road	
from Green Valley to Village Green	$4,413,000
from Village Green to Hwy 50	$4,505,000
Interchange Reconstruction:	
Bass Lake Road/State Route 50	$13,370,000
Total	$23,752,000

COMMENT: El Dorado County in cooperation with Caltrans should initiate a Project Study Report (PSR) for the reconstruction of the Bass Lake Road / State Route 50 interchange.

COMMENTOR: Robert M. O'Loughlin, Chief, Planning Branch C, District 3, California Department of Transportation.

RESPONSE: This recommendation is being forwarded to El Dorado County.

COMMENT: It should be noted the required improvement to State route 50 / Bass Lake road Interchange should be designed to Caltrans current standards. The westbound 2-lane off-ramp will require a 1000-foot acceleration lane and the eastbound 2-lane off-ramp will require a 1300-foot auxiliary lane as shown on Figure 504.88 of the Highway Design Manual. The feasibility of an L-9 configuration for the SR 50/Bass Lake Road Interchange should be investigated specifically with regard to maximum ramp grades and structure horizontal and vertical clearances.

COMMENTOR: Robert M. O'Loughlin, Chief, Planning Branch C, District 3, California Department of Transportation.

RESPONSE: Current modelling indicates that the interchange will not require complete reconstruction until sometime beyond the year 2001. Interim improvements are consistent with the Caltrans design presented to El Dorado County staff during a meeting of Caltrans and County DOT on November 19, 1991. When reconstruction is warranted, the interchange will be constructed to Caltrans standards.

COMMENT: Traffic counts done by Omni Means for the purpose of this study were taken on January second, a holiday/vacation week. No a.m. turn movements were taken, nor were any counts taken by TJKM or Omni Means during a time when school would be in session. The missing a.m. counts would be needed to determine needs for Ramp Metering, Intersection Improvements and Interchange Geometrics. Caltrans requests that these issues be addressed in the final environmental document.

COMMENTOR: Robert M. O'Loughlin, Chief, Planning Branch C, District 3, California Department of Transportation.

RESPONSE: A.M. traffic counts were performed by TJKM Transportation Consultants on January 9, 1992, and are included in the Additional Traffic Analysis attached to this document as Appendix E. In summary, that analysis indicates that project impacts can be accommodated in the existing a.m. peak hour with signalization of the westbound ramp intersection. Implementation of additional improvements identified by Caltrans can be implemented to avoid the need for complete interchange reconstruction until sometime beyond the year 2001.

COMMENT: In the EIR on page J-1, second paragraph, the EIR should be corrected to indicate that the Stone Hill Road/Bass Lake Road intersection is approximately 0.8 mile north of Highway 50.

COMMENTOR: Scott Chad, El Dorado County DOT

RESPONSE: The sentence in the EIR which reads "*The most notable drive is Stone Hill Road, which intersects Bass Lake Road about one mile north of Highway 50*". Is amended to read "*The most notable drive is Stone Hill Road, which intersects Bass Lake Road about 0.8 mile north of Highway 50*".

COMMENT: On page J-3, first paragraph, the Draft EIR indicates that Bass Lake Road is currently functioning at LOS B; Highway 50 - LOS D; Green Valley Road - LOS D. The 1,500 vph for LOS C on Bass Lake Road and Green Valley Road is too high, even under ideal conditions.

COMMENTOR: Scott Chad, El Dorado County DOT

RESPONSE: [This response was prepared by OMNI MEANS] The Levels-of-Service were calculated based upon daily trips on urban arterials, as shown in Table 3 of the traffic analysis. The current LOS figures used in the comment appear to be based on rural highway capacities. Rural highway level-of-service is based on ability to pass on the two lane roadway. Because motorists expect to have better conditions in rural areas, LOS threshold values are lower. Nevertheless, the 1500 vph figure is relatively high. A more appropriate capacity would be 1000 vph for LOS "C".

COMMENT: Figures J3 and J5 in the body of the Draft EIR need to match Figures 5 and 6 of the Traffic Analysis.

COMMENTOR: Scott Chad, El Dorado County DOT

RESPONSE: The renditions of Figures J3 and J5 that are presented in the EIR are earlier versions of figures from the traffic analysis. Obviously, the preliminary figures from the administrative draft were not replaced with the revised figures provided by OMNI MEANS. As noted in the comment, the correct figures are presented in the Traffic Analysis as Figures 5 and 6.

COMMENT: The mitigation measure in the EIR must include all of the road improvements listed in the Traffic Analysis regardless of what entity will be responsible for design and construction. All of these improvements must be in-place for the traffic system to function at an acceptable level. Mitigation Measures need to clearly indicate that all improvements required for the Future without Project shall also be included as part of the "required transportation facilities".

COMMENTORS: Craig McKibbin, El Dorado County DOT
Scott Chad, El Dorado County DOT

RESPONSE: The EIR and traffic analysis identify all of the improvements which will be required to serve the area. Mitigation Measures J01 and J02 have been revised to read as follows:

J01 In order to provide a functional area-wide circulation system, all of the roadway and facility improvements identified in the Program EIR will be constructed. Project impacts to Bass Lake Road will be mitigated by 1) acquisition of right-of-way for four lanes through the study area, 2) construction of Bass Lake Road to four lanes with facilities through the study area, and 3) dedication of right-of-way for an additional lane (outside lane of a six lane facility) along the frontage of applicant properties. Project maps will be conditioned to require construction of improvements as they are warranted. Improvements to County roads beyond those provided by this project will be funded through County adopted Roadway Fees.

J02 For the short term, impacts to the Bass Lake Road/Highway 50 interchange will be mitigated by construction of the interim configuration identified by Caltrans. These improvements will be provided by the project applicants. Traffic counts will be performed annually to ensure the interchange operates at an acceptable LOS during peak periods. Complete reconstruction of the interchange will be implemented in a timely manner so as to prevent degradation of peak period LOS to less than acceptable levels. Reconstruction of the interchange will be funded through an Area of Benefit or similar financing mechanism established by County DOT.

COMMENT: Table 7 of the OMNI MEANS Traffic Analysis indicate that under Cumulative without Project conditions three left turn lanes will be required on the Bass Lake Road/US 50 EB ramps, but under Cumulative with Project conditions only two such lanes will be required. Why?

COMMENTOR: Scott Chad, El Dorado County DOT

RESPONSE: [This response was prepared by OMNI MEANS] The Cumulative without Project improvements were taken verbatim from the Hollow Oaks Subdivision Draft EIR. The Cumulative plus Project improvements were calculated by OMNI MEANS. According to OMNI MEANS calculations, dual lanes will provide sufficient capacity if they have exclusive channelization to the northbound receiving lanes.

COMMENT: The extent of required widening of Bass Lake Road needs to be identified in the EIR. Six lanes will be needed on Bass Lake Road from US 50 to Village Green Parkway. Four lanes will be required north of Village Green Parkway.

COMMENTOR: Scott Chad, El Dorado County DOT
Craig McKibbin, El Dorado County DOT

RESPONSE: As noted, buildout is predicted to require six lanes on Bass Lake Road from US 50 to Village Green Parkway. Four lanes will be required north of Village Green Parkway.

COMMENT: In the EIR, Mitigation Measure J01 indicates that, even with proposed widening, Bass Lake Road will operate at LOS F under Cumulative plus Project conditions. This level of service is not acceptable to the Department of Transportation. It is recommended that either Bass Lake Road be widened beyond that proposed, or that land use intensities be decreased to allow for an acceptable level of service. The Board of Supervisors has directed that the level of service standard for County roads is to be LOS C or better.

COMMENTOR: Scott Chad, El Dorado County DOT

RESPONSE: [This response was prepared by OMNI MEANS] Eight lanes would be required to mitigate the level of service on Bass Lake Road. Alternatives to widening Bass Lake Road should be considered. One alternative to this would be to limit access to Bass Lake Road, thus creating an expressway with higher capacity. Another alternative would be to implement measures to reduce total trips. Total trips on Bass Lake Road would need to be reduced approximately 20,000 ADT which would require trip reduction measures affecting an area beyond the Bass Lake Road Area. A third alternative is construction of a parallel facility with access to Green Valley Road.

COMMENT: It is important to note that the document is a program level EIR and not a project level environmental analysis. Therefore, the level of detail in the document is less than that which will be required in any future project specific documents. Overall the document is quite satisfactory.

COMMENTOR: Craig McKibbin, El Dorado County DOT

RESPONSE: The purpose of a program level analysis is to establish the baseline for future development. Information in the Program EIR provides guidance as to acceptable land use intensities, required area-wide infrastructure, etc.

COMMENT: The Summary of Mitigation Measures, page B-9, refers to a mitigation measure J03, but no such mitigation measure is listed, nor does one show up in the body of the document.

COMMENTOR: Craig McKibbin, El Dorado County DOT

RESPONSE: Reference to Mitigation Measure J03 was removed from the administrative version of the Draft Program EIR prior to its circulation as the formal Program EIR.

COMMENT: In the discussions of "Existing plus Project" there are several intersections that are shown to operate at Level of Service (LOS) D, E, or F but are not meeting warrants for

signals. Mitigation measures for these intersections should be developed that will ensure that the LOS at the intersection does not exceed the County standard of "C".

COMMENTOR: Craig McKibbin, El Dorado County DOT

RESPONSE: [This response was prepared by OMNI MEANS] For unsignalized intersection, reserve capacity criteria is used for level of service analysis. Levels of service at the unsignalized intersections which are controlled by side street stop signs are indicative of the magnitude of the delay incurred by motorists turning at the intersection. Because these calculation ignore the condition of through traffic flow (which is assumed to proceed freely), a supplemental traffic signal warrant analysis is performed. Thus, while the unsignalized level of service may indicate very long delays for a particular turning movement (i.e. LOS "E" or "F") traffic conditions are generally not assumed to be unacceptable unless signal warrants are satisfied. The signal warrant criteria employed for this study are the peak hour warrants presented in the Manual of Uniform Traffic control devices (MUTCD) published by the Federal Highway commission. The Caltrans "Traffic Manual: utilizes the peak hour warrants presented in the MUTCD as one method for determining the appropriateness of signalizing intersections.

COMMENT: It should be understood, and included in the text of the EIR, that the intersection geometrics described in the EIR are preliminary and only at program level detail. As projects are presented to the County in the future, the geometrics will be further analyzed and may change, possibly significantly. Similarly, the sizing of internal streets will need to be analyzed as part of the review process of individual projects. Several of the internal streets will be collecting traffic from other internal streets and can carry a significant amount of traffic to the major external roads. An example is Stone Hill Road shown as carrying 311 peak hour trips. We are concerned that the small internal roads that provide through connections to external arterial roadways may become bypasses for traffic that belongs on the major roadways.

COMMENTOR: Craig McKibbin, El Dorado County DOT

RESPONSE: As noted, the traffic analysis provided in the Program EIR has been prepared to facilitate long range area-wide planning and is not intended as a detailed final study. As individual projects are proposed, more detailed project level analysis will be required. The need for and extent of supplemental analysis will be determined by DOT on a project by project basis.

COMMENT: Page J-3 of the EIR states that northbound traffic will be using Bass Lake Road and Cambridge Road to get to Green Valley Road. We do not believe that Cambridge will be carrying much, if any, of this project area's traffic to the

north. That traffic will use Bass Lake Road. Cambridge may carry some traffic to eastbound Highway 50, but that should be minor and only affect between Country Club and Highway 50. Related is how much traffic will use Castana Drive to get to Country Club and hence Cambridge Road. If the volumes using this "back-door" are significant, it could adversely impact the Cambridge/Knollwood area. This needs to be reviewed.

COMMENTOR: Craig McKibbin, El Dorado County DOT

RESPONSE: [This response was prepared by OMNI MEANS] The assumed project trip distribution was that 10% would travel north on Cambridge Road and 5% south on Cambridge Road. 10% total trips will utilize Castana Drive to access Cambridge Road and 5% will use Country Club west of Castana Drive.

COMMENT: Three additional intersections need to be analyzed to adequately address all of the potential traffic impacts. These intersections are:

a. New Bass Lake Road at Green Valley Road
b. New Bass Lake Road at the Existing Bass Lake Road
c. Bass Lake Road at Village Green Parkway.

RESPONSE: This comment was made on the administrative draft of the Program EIR. In response, the referenced intersections are analyzed in the Draft Program EIR.

COMMENT: We agree with OMNI MEANS that the "Cumulative base" that was used is probably lower than what it actually would be. However, we don't agree that the error is less than one percent. This comment does not affect the results of the study nor the EIR.

COMMENTOR: Craig McKibbin, El Dorado County DOT

RESPONSE: As noted, the traffic analysis provided in the Program EIR has been prepared to facilitate long range area-wide planning and is not intended as a detailed final study. As individual projects are proposed, more detailed project level analysis will be required. The need for and extent of supplemental analysis will be determined by DOT on a project by project basis.

COMMENT: Depending on the time frame of the project, Ramp Metering may be required by Caltrans for the westbound on-ramp to maintain an acceptable level of service on Highway 50.

COMMENTOR: Robert M. O'Loughlin, Chief, Planning Branch C, District 3, California Department of Transportation.

RESPONSE: As noted, Ramp Metering may be required for the westbound on-ramp to Highway 50. If metering is warranted it will be implemented.

COMMENT: There seems to be a problem in semantics when referring to the Bass Lake Road Undercrossing Structure throughout the report. The structure is referred to as an "underpass" in the last paragraph of page J-17 and as an "overcrossing" in the first paragraph on page J-18.

COMMENTOR: Robert M. O'Loughlin, Chief, Planning Branch C, District 3, California Department of Transportation.

RESPONSE: The terms "undercrossing" and "overcrossing" are taken from the text of the appended traffic analysis, and are not intended as technical references describing the roadway facility at the intersection of Highway 50 and Bass Lake Road. "Undercrossing" is used to describe Bass Lake Road as passing beneath Highway 50. Similarly, "overcrossing" is used to describe U.S. 50 as the roadway which passes over the top.

COMMENT: It should be noted that whenever an existing structure is to be widened, Caltrans' policy is to require a structural analysis of the proposed widening to determine its conformance to current seismic standards. The analysis would make recommendations for retrofit or structure replacement. The seismic retrofit or structure replacement costs would be included in the bridge widening cost estimate.

COMMENTOR: Robert M. O'Loughlin, Chief, Planning Branch C, District 3, California Department of Transportation.

RESPONSE: [This response was prepared by OMNI MEANS] It is assumed that these costs are included in costs programmed in the Traffic Mitigation Fee report.

COMMENT: Caltrans recommends that the Country Club Drive intersection should be relocated as soon as possible. Consideration should be given to signalization of the ramp intersections at Bass Lake Road Highway 50.

COMMENTOR: Robert M. O'Loughlin, Chief, Planning Branch C, District 3, California Department of Transportation.

RESPONSE: Relocation of Country Club Drive is a priority improvement associated with development of the Bass Lake Study Area, and will be implemented as soon as practical. Ramp intersections do not currently meet peak hour signal warrants, but have large unbalanced volumes during peak hour. Signalization will be implemented as warranted.

COMMENT: Caltrans would like to suggest a meeting with the El Dorado County Planning and Transportation staff to address transportation issues in this area. Please contact Jody Lonergan, Chief, Planning Branch B, at 916-741-4532.

COMMENTOR: Robert M. O'Loughlin, Chief, Planning Branch C, District 3, California Department of Transportation.

RESPONSE: El Dorado County staff met with representatives of Caltrans on November 19, 1991 at El Dorado County DOT offices.

COMMENT: Caltrans is concerned about the a.m. operating characteristics and possible need for complete reconstruction of the Bass Lake Road/Highway 50 interchange in the near term. The Agency has prepared an interim interchange configuration which may be constructed to increase capacity at the interchange until a full interchange is warranted. The EIR should examine a 10 year growth scenario to determine the adequacy of this configuration.

COMMENTOR: Ernie Rinde for Robert M. O'Loughlin, Chief, Planning Branch C, District 3, California Department of Transportation. This comment was generated during the joint Caltrans/El Dorado County staff meeting on November 19, 1991.

RESPONSE: TJKM Transportation Engineers were retained to provide the requested analysis. Those persons requiring detailed data are referenced to their technical report which is appended to this document. In summary, the TJKM analysis determined that no improvements are needed over and above those already planned by the County to accommodate existing plus project a.m. peak hour traffic volumes at the Bass Lake Road/Highway 50 interchange. The interim interchange configuration with signalization of the ramps is predicted to accommodate 2001 traffic volumes.

UTILITIES AND SERVICES

WATER

COMMENT: Given normal conditions, no development should occur without EID and County water agencies being able to give assurance to property owners of an uninterruptable water supply.

COMMENTOR: Jack M. Tyler, Planning Director, EDHCSD
Margaret E. Wilkenfield, Acting Executive Officer, LAFCO

RESPONSE: Mitigation Measure **K01** has been reworded to reflect the current requirements adopted by LAFCO, and proposed conditioning of project maps. Mitigation Measure **K01** now reads as follows:

K01 Projects which are not currently within the service area of EID will be required to petition LAFCO for annexation. LAFCO requires that EID shall provide written documentation stating its ability to provide adequate service to annexing property when it is anticipated that such services will be needed and that provision of such service will not create a significant negative impact on the properties already receiving service. Additionally, the letter will identify when the service is projected to be needed and the plan which the District has developed for expanding its service capacity to meet the needs of the annexing territory at that time. Pursuant to Resolution 90-39, EID can issue water meters only when water is available for service. Tentative maps for each of the individual projects within the study area will be conditioned to prevent the recording of a final map until a firm commitment of water is available from EID.

COMMENT: The discussion on water supply begins on page K-1 of the DEIR and states that demand for water in El Dorado County exceeds the El Dorado Irrigation District's (EID) firm yield. It is more accurate to state the EID is presently studying its firm yield water supplies and demand, and that the current studies which have been made available to the public indicate there is not a water deficit in the County. EID has directed its staff to work in conjunction with an appointed committee consisting of members of the community to study the reports and make a recommendation to the EID Board of Directors regarding the extent of water availability in the district.

COMMENTOR: Craig M. Sandberg, Attorney at Law, Hackard, Taylor & Phillips representing the Chas Company.

RESPONSE: As a consequence of the complexity of the water delivery system, EID has been unable to determine the precise volume of water available to serve new growth. Pursuant to Resolution 90-39, EID can issue water meters only when water is available for service. Tentative maps for each of the individual projects within the study area will be conditioned

to prevent the recording of a final map until a firm commitment of water is available from EID.

COMMENT: There are adequate mitigation measures available to reduce the identified impact regarding water supply which are not identified in the DEIR. As correctly identified in the DEIR, there are a number of water projects being conducted by EID which will ultimately result in increased water supplies to the District. Some of these improvements will be in line prior to, or concurrently with, the projected times the applicants' projects will require water supplies. Further, there can be no impact on water supplies resulting from the projects until such time as homes are actually constructed on the property. Consequently, a condition which prevents the projects from going forward until such time as EID can irrevocably commit water supplies fully mitigates any potential impact. Tentative maps for each of the individual projects within the study area can be conditioned to prevent the recording of a final map until a firm commitment of water is available from EID. Absent such a firm commitment, lots will not be created and homes cannot be constructed.

COMMENTOR: Craig M. Sandberg, Attorney at Law, Hackard, Taylor & Phillips representing the Chas Company.

RESPONSE: This comment is correct. Since EID has indicated that additional water supplies are/will be available to serve new development, all that is required is a mechanism which ensures that water is not provided to new development before it is available from within the EID system. Conditioning of Tentative Maps to prevent the recording of a final map until a firm commitment of water is available is proposed as a mitigation measure which will reduce project impacts to a less than significant level.

COMMENT: The use of wells as a source of water for common area landscaping should be identified as a mitigation measure which would reduce water demand from EID.

COMMENTOR: Craig M. Sandberg, Attorney at Law, Hackard, Taylor & Phillips representing the Chas Company.

RESPONSE: Use of wells for domestic water supply and/or landscaping is a potential measure which could be implemented to reduce the volume of water required from EID. However, the environmental consequences of increased pumping from existing and/or new wells would have to be weighed against the potential impact associated with use of EID supplies. Since none of the projects within the study area have proposed use of well water, an analysis of potential impacts on local groundwater supplies has not been performed.

COMMENT: To provide mitigation for the cumulative impacts on future county water supplies, conditions on the projects could require that each lot created be required to pay a fee, the

amount of which shall be based on a reasonable estimate of the cost of future water improvements to fund water projects.

COMMENTOR: Craig M. Sandberg, Attorney at Law, Hackard, Taylor & Phillips representing the Chas Company.

RESPONSE: If such an action is acceptable to the County and EID, adoption of the water fee could be implemented to mitigate cumulative impacts to a less than significant level.

COMMENT: On page K-1, "improvement of the Sly Park Flashboards" should be "installation of the Sly Park Flashboards."

COMMENTOR: Robert J. Reeb, General Manager, El Dorado County Water Agency.

RESPONSE: The identified change is noted and incorporated into the Program EIR. This clarification is informational, and does not require any change to the impacts or mitigation measures identified in the report.

COMMENT: On page K-1, "expansion of the Bray Treatment Plant in Placerville" should be "construction of the Bray Treatment Plant in Placerville."

COMMENTOR: Robert J. Reeb, General Manager, El Dorado County Water Agency.

RESPONSE: The identified change is noted and incorporated into the Program EIR. This clarification is informational, and does not require any change to the impacts or mitigation measures identified in the report.

COMMENT: On page K-1, "improvement of the Texas Hill Reservoir" should be "completion of the Texas Hill Reservoir."

COMMENTOR: Robert J. Reeb, General Manager, El Dorado County Water Agency.

RESPONSE: The identified change is noted and incorporated into the Program EIR. This clarification is informational, and does not require any change to the impacts or mitigation measures identified in the report.

COMMENT: On page K-2, "Improvement of the Bray Water Treatment Facility" should be "Construction of the Bray Water Treatment Facility."

COMMENTOR: Robert J. Reeb, General Manager, El Dorado County Water Agency.

RESPONSE: The identified change is noted and incorporated into the Program EIR. This clarification is informational, and does not require any change to the impacts or mitigation measures identified in the report.

COMMENT: On page K-2, Table K1 should be corrected as follows: (a) additional availability for the White Rock Penstock should be 32,800; and for the Small Alder Project,11,250.

COMMENTOR: Robert J. Reeb, General Manager, El Dorado County Water Agency.

RESPONSE: The identified change is noted and incorporated into the Program EIR. This clarification is informational, and does not require any change to the impacts or mitigation measures identified in the report.

COMMENT: On page K-2, delete "In addition, recent completion of the Hazel Creek Tunnel further enables the District to divert purchased water from PG&E into the Sly Park Reservoir where it can be stored and utilized as needed. Because of the cost of obtaining water through this diversion, it is envisioned as a backup rather than primary source for District water."

The District is precluded from diverting water into Sly Park Reservoir via the Hazel Creek Tunnel at this time because it lacks the necessary water rights permit, Congressional authorization (except for water for agricultural purposes) and an agreement with PG&E. This facility was used on an emergency basis only for one year. Its use would be limited to that basis in the future absent securing the right to divert water through the tunnel.

COMMENTOR: Robert J. Reeb, General Manager, El Dorado County Water Agency.

RESPONSE: The identified change is noted and incorporated into the Program EIR. This clarification is informational, and does not require any change to the impacts or mitigation measures identified in the report.

COMMENT: On page K-5, I concur that the impact of the proposed project on water supply is significant. The average annual amounts could range from 1,956 acre-feet/year to 4,887 acre-feet/year based on the average water use rate per day per dwelling unit provided in the draft Program EIR.

COMMENTOR: Robert J. Reeb, General Manager, El Dorado County Water Agency.

RESPONSE: On page K-5, the draft Program EIR identifies the water demand generated by implementation of the project as significant and unmitigated. This recommended level of significance is based on the premise that EID does not have adequate water to serve the project. Conditioning of tentative maps to prevent the recording of a final map until a firm commitment of water is available is proposed as mitigation which could reduce this impact to a less than significant level.

COMMENT: On page K-5, the mitigation measures offered are inadequate. Public Resources Code Section 21002 requires agencies to adopt feasible mitigation measures in order to substantially lessen or avoid otherwise significant adverse environmental impacts. General mitigation measures must be developed and adopted since the proposed project is only general in nature. The proposed mitigation discussed on Page K-5, however, is inadequate in that it defers the obligation to formulate and adopt mitigation until a specific development project is proposed. As an alternative, the lead agency should consider adoption of the following mitigation measures:

(a) Plumbing, new and retrofit: Enforcement of water conserving plumbing fixture standards including requirement for ultra low flush ("ULF") toilets in all new construction.

(b) Water waste prohibition: Prohibition of single pass cooling systems in new connections, nonrecirculating systems in all new conveyor car wash and commercial laundry systems, and nonrecycling decorative water fountains.

(c) Landscape water conservation for single family homes (Also for commercial, industrial, institutional, governmental, and multi-family developments, with 3 acres of landscaping or more, if included in proposed project): Installation of more efficient landscapes and water saving practices.

(d) Financial participation in new raw water supply facilities on an equivalent dwelling unit basis or such other basis as determined by the El Dorado Irrigation District.

(e) Installation of separate water delivery systems to large institutional, recreational, or governmental water users so that the use of reclaimed water for landscape irrigation can be implemented.

(f) Plumbing retrofit of offsite existing single family homes, commercial, industrial, institutional, governmental, and multi-family developments to lessen the significant impact on water supply. The retrofit should include low-flow showerhead, toilet, leak repair, and landscape audit.

Your agency must consider the above mitigation measures even though the Local Agency Formation Commission will also have the authority to address the significant impact on water supply. Therefore, I request consideration the measures for inclusion in the Final Program EIR.

COMMENTOR: Robert J. Reeb, General Manager, El Dorado County Water Agency. .

RESPONSE: Through preparation of this comment, the identified measures are incorporated into the Final Program EIR, making them available for consideration by El Dorado County.

COMMENT: Measure K01 should be changed to read as follows:

K01. Those projects which are not currently within the District will be required to petition LAFCO for annexation. As a responsible public agency, LAFCO cannot approve such annexation unless it reasonably concludes that there is adequate guarantee that future water will be available to serve new development. Each project will be required to obtain written documentation from EID indicating EID's ability to provide service to the project at such time as service is projected to be needed. Pursuant to Resolution No. 90-39, EID has indicated that it will only issue water meters when new sources of water become available. Consequently, service to the project area will not have a significant impact on the cost or adequacy of service within the District.

COMMENTOR: Lewis W. Archuletta, Planner, El Dorado Irrigation District.

RESPONSE: Mitigation measure K01 has been modified to reflect the requested change. The new mitigation measure is presented in the revised summary at the beginning of this document.

COMMENT: EID is an independent special District and is not subject to P.U.C. regulations.

COMMENTOR: Lewis W. Archuletta, Planner, El Dorado Irrigation District.

RESPONSE: Mitigation measure K02 has been modified to reflect the requested change. The new mitigation measure is presented in the revised summary at the beginning of this document.

COMMENT: Information in the third paragraph on page K-3 of the Draft Program EIR should be modified to indicate "Treated water is conveyed to the study area via an extension of a pipeline from the Gold Hill intertie. This water is not routed through the Bass Lake treatment plant."

COMMENTOR: Lewis W. Archuletta, Planner, El Dorado Irrigation District.

RESPONSE: The identified change is noted and incorporated into the Program EIR. This clarification is informational, and does not require any change to the impacts or mitigation measures identified in the report.

COMMENT: Use of gray water for irrigation is recommended under **PLANNING CONSIDERATIONS**, on page K-6 of the Draft Program EIR. Use of gray water should be considered for landscaping and buffers (J. Tyler). Recycled water is not currently available from EID (L. Archuletta).

COMMENTORS: Jack M. Tyler, Planning Director, EDHCSD
Lewis W. Archuletta, Planner, El Dorado Irrigation District.

RESPONSE: Use of gray water could be implemented as a means to reduce the volume of treated water required to serve development. However, the project cannot use recycled water unless it is available from a source, such as EID. Consequently, it is recommended that EID and El Dorado County staff cooperatively investigate the use of gray water for irrigation purposes as a potential measure which could be implemented to reduce the demand for treated water.

SEWER

COMMENT: No development should occur without EID and County agencies being able to provide property owners with assurances that services will remain available and affordable.

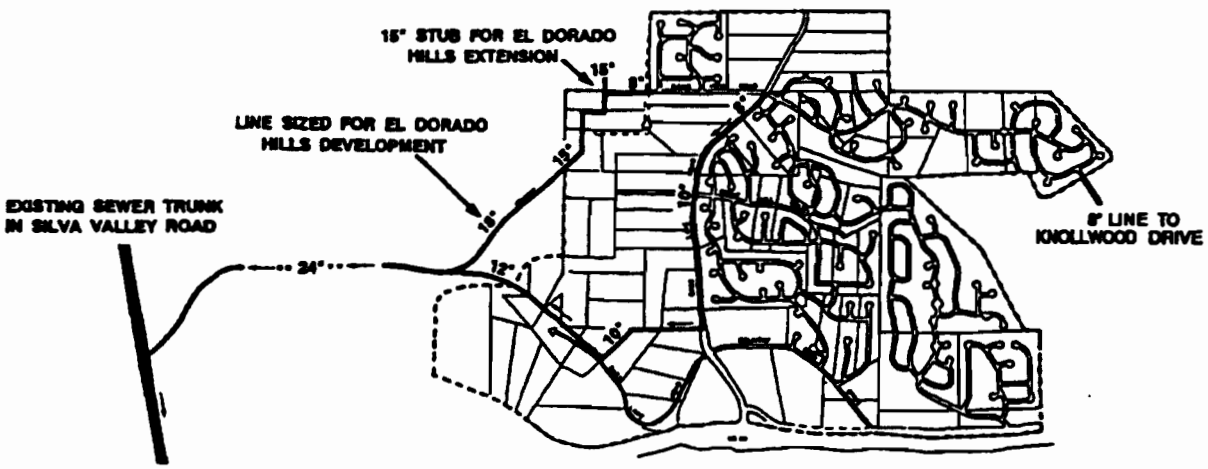
COMMENTOR: Jack M. Tyler, Planning Director, EDHCSD.

RESPONSE: As discussed in mitigation measure, K02 on page K-9 of the Draft EIR, proposed capacity with programmed expansions of sewage treatment facilities are adequate to handle anticipated growth in the near term. For the long term, other options will need to be examined by EID to assure that capacity is maintained. In accordance with EID regulations, developers will be required to enter into the necessary service agreement(s) with EID. Included in these agreements will be developer installation of conveyance facilities in accordance with EID requirements. Parcels not already within the District will require annexation.

COMMENT: The most easterly 63 lots of Hollow Oaks subdivision will gravity flow through existing sewer mains in Knollwood Drive. On page K-7 of the Draft EIR, the sentence which reads: "The closest sewer connection to the eastern side of the study area is ... " should be reworded to indicate "The closest sewer connection for the majority of the eastern side of the study area is... ". Figure K2, which shows the proposed sewer system, should be revised to show the 8" sewer line that will serve the easternmost corner of Hollow Oak.

COMMENTOR: Lewis W. Archuletta, Planner, EID

RESPONSE: As noted in the comment, the 63 most easterly lots of the Hollow Oak subdivision will gravity feed through existing sewer mains in Knollwood Drive. Recognizing that these lots will be served through Knollwood, the sentence which subsequently indicates the location of the closest sewer connection should be reworded as noted. The revised figure is presented below.



COMMENT: The sentence in the third paragraph on page K-7 of the Draft EIR which reads: "The 24" trunk sewer line along Carson Creek is already proposed to serve El Dorado Hills" should be changed to "The 24" trunk sewer line along Carson Creek is already proposed to serve the El Dorado Hills Specific Plan".

COMMENTOR: Lewis W. Archuletta, El Dorado Irrigation District.

RESPONSE: The requested change is made to this sentence.

COMMENT: The EIR should contain a discussion of the environmental effects associated with construction of the water and sewer infrastructure necessary to extend service to the study area.

COMMENTOR: Lewis W. Archuletta, El Dorado Irrigation District.

RESPONSE: Extension of water mains would occur within the Bass Lake Road alignment and consequently would not be anticipated to produce any significant impacts. Because of the relatively short distance of this extension, and the fact that it would be within an existing roadway, adoption of a Negative Declaration would in all likelihood suffice.

As discussed in the Draft Program EIR, sewer service to the study area will be provided via a sewer main to be constructed between the study area and the existing collector located in Silva Valley Road located approximately one-half mile west of the study area. Consistent with plans to serve the El Dorado Hills Specific Plan area, the new sewer main was proposed to be constructed within the Carson Creek corridor. However, reconnaissance of the Carson Creek corridor by R.C. Fuller Associates staff indicated that construction of the sewer line within Carson Creek could produce a significant level of environmental impacts including tree and vegetation removal, excessive grading, disruption of the creek, and potential disturbance of numerous prehistoric and historic sites. The Archaeological reconnaissance of the creek corridor identified an elaborate complex of historic roadways, hand laid stone walls and house foundations, mining features, and several prehistoric bedrock milling stations. As a result of this reconnaissance, it was proposed that an alternative alignment of the sewer line should be investigated.

The revised sewer plan is presented on the preliminary Sewer Plan included in Appendix F. As shown, the proposed sewer alignment has been revised to utilize a main located within Bass Lake Road. Pumping stations are proposed to convey flows uphill from the west side of the study area. The trunk line in Bass Lake Road is proposed to flow south, turning west to follow the alignment of Old Bass Lake Road to a location approximately one-half mile west of Bass Lake Road, where Old Bass Lake Road intersects a historic toll road. The major impacts associated with construction of this segment is the required crossing of a wetland area and disturbance of an

isolated bedrock mortar located in the swale where Old Bass Lake Road turns west. Wetland mitigation will be required to compensate for disturbance created by placement of the sewer line across the existing wetland area. The level of disturbance will be less than one acre, and the mitigation can in all likelihood be provided in the swale above or below the crossing. The Archaeologist has indicated that burying the bedrock mortar would be considered a less than significant impact. It may be possible to relocate the mortar to another location, but this action increases the possibility of discovery and disturbance of additional resources that might exist around the mortar.

As depicted on the Sewer Plan in Appendix F, there are two possible alignments which are being considered for continuation of the sewer line west of the study area. One possible alignment would leave Old Bass Lake Road and follow the alignment of the historic road through the Carson Creek corridor, across the creek, and overland to Silva Valley Road via the originally proposed alignment. The advantages of this alignment include:

1) This alignment would not require additional pumping stations to convey flows west to Silva Valley Road.

2) This alignment could be easily used by future development in the El Dorado Hills Specific Plan area.

3) If construction could be performed with minimal damage to the prehistoric and historic resources, the utility easement would provide an ideal opportunity for development of a functional and interpretive bicycle/ pedestrian trail between the El Dorado Hills Specific Plan area and the Bass Lake Road study area.

4) Emplacement of the line within the historic road would minimize the need to cut or trench through bedrock as would be required at locations within the corridor where the historic road does not already exist.

The major disadvantages of this alignment include:

1) The historic road is considered to be a significant site of unique historic value. Construction would have to be performed in such a manner as to prevent damage to the hand stacked rock retaining walls and other features which constitute the road. Presently, it is not certain that the trenching equipment required to lay the line could be operated on the historic road without causing irreparable damage to the road. Because of the uncertainty involved with construction in the roadway, the Archaeologist has strongly recommended that this alignment not be utilized for the sewer line.

2) The historic road passes through the segment of Carson Creek which contains numerous prehistoric and historic resources. Construction would increase the potential of uncovering additional resources which may be buried in the vicinity. Such an accident might not only damage the find, but could result in substantial construction delays. Because of the historic value of the sites in this area, the Archaeologist has strongly recommended that this alignment not be utilized for the sewer line.

3) The creek corridor supports a heavy growth of oak woodland and riparian vegetation. Even though the sewer line would be located in the historic road, construction would have the potential of impacting nearby vegetation and trees. As a result of the extensive vegetation and wetland areas within this corridor, the wetlands specialist on County staff has strongly recommended that this alignment not be utilized for the sewer line.

4) Construction would disrupt the relatively isolated habitat adjacent to the creek, would increase the potential of erosion and resulting sedimentation, and would impact wetland resources, requiring Army Corps of Engineers and/or Department of Fish and Game permits.

The second potential sewer alignment would follow Old Bass Lake Road (Tong Road) to Silva Valley Road. Old Bass Lake Road is actually a previous alignment of Highway 50. Following construction of the new highway, the old alignment was adopted as Bass Lake Road by the County. As a consequence of disuse, various segments of the old roadway were eventually returned to private ownership. Such is the case for the segment of the road that connects the present day alignment of Bass Lake Road with Silva Valley Road. Because Old Bass Lake Road overlies the original Highway 50, the roadbed consists of several feet of concrete. Rather than attempt to cut through the concrete, it is proposed that the sewer line would follow in an easement along the side of the pavement.

The major advantages of this alternative include:

1) Construction of the sewer line would require minimal grading or disturbance of vegetation. No significant trees would be impacted by construction of this segment of the sewer line.

2) Except for intersection with the historic toll road, there are no known historic sites located adjacent to the old roadway, and consequently, this alignment poses minimal risk of disturbing any prehistoric or historic sites.

The major disadvantages of this alternative include:

1) Two pumping stations would be required to convey flows west to Silva Valley Road.

2) This alignment is separated from the El Dorado Hills Specific Plan area. If development in that area desired to utilize this sewer trunk, a pumping station would be required to convey flows across the Carson Creek corridor and up the hill to this line.

Based on the above considerations, it is recommended that the Old Bass Lake Road alternative be adopted. Implementation of this alternative would be expected to have minimal environmental consequences and would not result in the generation of any significant unmitigatable impacts.

POLICE SERVICES

COMMENT: Given the number of proposed new peace officers per 1,000 population, one immediately asks where are the 11 existing officers for the EDHCSD residents of 1991. Is this proposed mitigation (Mitigation Measure K05, page K-13 of the Draft EIR) needful, realistic, attainable?

COMMENTOR: Jack M. Tyler, Planning Director, EDHCSD.

RESPONSE: Mitigation measure K05 is not specific to development of the Bass Lake study area, but instead is existing County policy. Current information from the County Sheriff's Department indicates that the desirable ratio is 1.8 officers per 1,000 population. As indicated in mitigation measure K05, the Sheriff's Department is funded through the County General Fund. The County Board of Supervisors has the responsibility to allocate funds to maintain an adequate level of service.

COMMENT: This project represent 2,901 homes. Assuming four persons per household, the resulting population will be 11,604 persons. In order for the Sheriff's Department to provide adequate protection, an appropriate number of sworn personnel needs to be maintained. A desirable ratio of sworn personnel is 1.8 officers per 1,000 population. Based upon this desirable ratio, to mitigate the impacts of the project, the Sheriff's Department will need to increase its sworn personnel by 21 officers. Associated equipment costs will be approximately $104,400.00.

COMMENTOR: Captain Charles Browne, El Dorado County Sheriff's Department.

RESPONSE: Even though the magnitude of this impact is greater than that identified by the Sheriff's Department and cited in the Draft EIR, mitigation measure K05 remains adequate to address this impact. Mitigation measure K05, on page K-13, indicates that the Sheriff's Department is funded through the County General Fund. The County Board of Supervisors has the responsibility to allocate funds to maintain an adequate level of service. Future residents of the study area will pay taxes which are applied to provision of County services and facilities.

FIRE PROTECTION

COMMENT: The DEIR identifies the need for a fire station site as a significant and unmitigated impact. Clearly, however, there is adequate mitigation (identify and obtain sites). Until that time, projects within the study area which do not contain suitable station sites may be prepared to go forward. Provision should be made within the mitigation measure allowing such projects to mitigate this impact by receiving a statement from the Fire District that indicates no suitable station sites exist within the boundaries of the project. Without such provision, all projects coming forward will be faced with the program EIR's finding of significance when, in fact, that particular project may have no practical method of mitigation for the impact.

COMMENTOR: Craig M. Sandberg, Attorney at Law, Hackard, Taylor & Phillips representing the Chas Company.

RESPONSE: A proposed location for a new fire station is identified on the preliminary Circulation and Public Facilities plan included in Appendix F. The Fire District has indicated that a new station will be required to serve buildout of the area, but has not indicated what, if any, level of growth may occur prior to establishment of that station. It may be feasible to serve a lesser level of development prior to operation of the new station. If this is the case, the impact generated by incremental development could be mitigated to a less than significant level by payment of the adopted fire fee. Conversely, at some point in time the District will not be able to provide adequate fire protection without the new station, and regardless of the availability of suitable sites on individual properties, additional development would not be permitted to occur until the station was established. Consequently, mitigation measure K06 has been revised to indicate that the need for a new station will be determined by the Fire District on a project by project basis, and that, upon payment of the adopted fire fee and receipt of an "ability to serve" letter from the Fire District, individual projects may be allowed to proceed prior to construction of the new station.

COMMENT: The Program EIR indicates that the fire station located at 2180 Francisco Drive in Lake Forest is staffed by volunteers. This is no longer correct. As of July 1, 1991, permanent staff were assigned to this station.

COMMENTOR: Harriett B. Segel, 2067 Wood Mar Drive, El Dorado Hills.

RESPONSE: The noted correction is acknowledged. Since this Comments & Responses document is incorporated as part of the Final EIR, the change is now included in the EIR.

SCHOOLS

COMMENT: The project should be conditioned to comply with El Dorado County Board of Supervisors resolution no. 220-91.

COMMENTOR: William M. Wright. Attorney representing the Buckeye Union School District and the El Dorado Union High School District.

RESPONSE: As individual projects are proposed for development, each will be conditioned to comply with resolution no. 220-91.

COMMENT: Sites to accommodate elementary schools should be designated within the study area. If the developers are unable to designate these sites, the school district will undertake this task.

COMMENTOR: William M. Wright. Attorney representing the Buckeye Union School District and the El Dorado Union High School District.

RESPONSE: Proposed locations for school sites are identified on the preliminary Circulation and Public Facilities plan included in Appendix F. Prior to acquisition, any potential school site must be deemed acceptable by the California Department of Education. General criteria for consideration in selection of a site include:

- a site should not exhibit more than 10% slope,
- a site should be no less than 10 acres in size,
- a site should be located away from high voltage lines,
- a site should be outside of any 60dB noise contour,
- a site should not be closer than 2 miles of an airport, and cannot be beneath runway approach/departure zones,
- a site should not be within a flood zone, and
- a site should not support wetland or sensitive habitat

These criteria include requirements established by the Board of Education as well as practical considerations identified by planners with experience in school site selection. Based on these general constraints, the greatest obstacle to selection of school sites in the Bass Lake Study Area is excessive slope. Prior to designation of any site, more detailed site evaluations are warranted. Although the District may independently identify school sites, it would be preferable that selection be a cooperative effort between the District, the County, and the project applicants.

COMMENT: The chances of receiving State funding on a 50/50 matching program have typically been good in the past, but a backlog of projects on file and a proposed new method of prioritizing projects significantly decreases the possibility of obtaining such funding in the future. We would not wish to present an optimistic picture of obtaining 50/50 funding when the chances are steadily diminishing.

COMMENTOR: William M. Wright. Attorney representing the Buckeye Union School District and the El Dorado Union High School District.
Norman R. Menzie, Assistant Superintendent, Staff Services, El Dorado Union High School District.

RESPONSE: Reference to the availability of 50/50 matching funding located on page K-8 of the Draft EIR should be amended to reflect the diminishing availability of these funds.

COMMENT: References to the El Dorado "Unified" School District should be corrected to El Dorado Union School District.

COMMENTOR: Norman R. Menzie, Assistant Superintendent, Staff Services, El Dorado Union High School District.

RESPONSE: All references in the Draft EIR to the El Dorado "Unified" School District are amended to the El Dorado Union School District.

COMMENT: Reference to the "Ponderosa" Alternative Education Center (page K-17 of the Draft EIR) should be corrected to "Ponderado" Alternative Education Center.

COMMENTOR: Norman R. Menzie, Assistant Superintendent, Staff Services, El Dorado Union High School District.

RESPONSE: The reference to the Ponderosa Alternative Education Center is amended to Ponderado Alternative Education Center.

COMMENT: The EIR incorrectly indicates that the El Dorado Union High School District has recently acquired a site for a new school near the intersection of Bass Lake Road and Green Valley Road. In fact, the district has only considered the acquisition of a site in that area and has not finalized any site purchase.

COMMENTOR: Norman R. Menzie, Assistant Superintendent, Staff Services, El Dorado Union High School District.

RESPONSE: As noted, the potential school site near the intersection of Bass Lake Road and Green Valley Road is being considered and has not yet been purchased by the school district.

COMMENT: Pursuant to Education Code, Section 39005, an investigation must be conducted by the Division of Aeronautics for any proposed school site location within two miles of an airport runway.

COMMENTOR: Sandy Hesnard, Environmental Planner, California Department of Transportation, Division of Aeronautics.

RESPONSE: This comment serves as notice to the lead agency and the school district that, upon selection of a school site located within two miles of the Cameron Park Airpark, the Department of Transportation, Division of Aeronautics, must be notified prior to land acquisition.

COMMENT: The DEIR identifies the need for school sites as a significant and unmitigated impact. Clearly, however, there is adequate mitigation (identify and obtain sites). Until that time, projects within the study area which do not contain suitable school sites may be prepared to go forward. Provision should be made within the mitigation measure allowing such projects to mitigate this impact by receiving a statement from the school districts that indicates no suitable school sites exist within the boundaries of the project. Without such provision, all projects coming forward will be faced with the program EIR's finding of significance when, in fact, that particular project may have no practical method of mitigation for the impact.

COMMENTOR: Craig M. Sandberg, Attorney at Law, Hackard, Taylor & Phillips representing the Chas Company.

RESPONSE: The Draft EIR indicates that, on an area-wide basis, development without establishment of new schools would represent a significant impact. The School Districts have indicated that new facilities will be required to serve buildout of the area, but have not indicated what, if any, level of growth may occur prior to establishment of those facilities. It may be feasible to serve a lesser level of development prior to construction of the new schools. If this is the case, the impact generated by incremental development could be mitigated to a less than significant level by payment of adopted school fee. Conversely, at some point in time the District will not be able to serve additional growth without the new schools, and regardless of the availability of suitable sites on individual properties, additional development would not be permitted to occur until the necessary facilities were established. Consequently, the impact to schools should be revised to indicate it is mitigated by mitigation measures K08 and K09. Mitigation measure K09, as presented below, has been added to the Final EIR.

K09 The ability to provide service to new students can only be determined by the respective School Districts on a project by project basis. Projects desiring to proceed prior to the availability of new school(s), must obtain an "ability to serve" letter from the school districts. The school districts are responsible for determining the number of students that can be accommodated in available facilities prior to construction of a new school(s).

GAS & ELECTRICITY

COMMENT: PG&E owns and operates the El Dorado-Gold Hill 115kV, and the Gold Hill-Martell 60kV transmission lines near the southerly boundary of the study area. The Gold Hill-Martell 60kV pole line will be rebuilt to a 115kV pole line in the near future. To ensure that site development activities such as lot layout, (transmission lines should not be placed in backyards), building placement, grading, and landscaping do not impair the safe, reliable operation of PG&E's existing facilities or restrict PG&E's access to these facilities, developers should be required to submit to PG&E all development plans which may adjoin utility facilities as soon as their plans are available. As a condition of approval of any proposed development, the County should require the developer to obtain PG&E's consent to any development plans which may impact PG&E facilities.

COMMENTOR: Jim Ambercrombie, District Manager, PG&E

RESPONSE: The El Dorado Department of Transportation is the agency responsible for review and approval of infrastructure and utility facilities. Projects are already required to consult with PG&E, and conform to PUC/PG&E requirements prior to extension of service.

COMMENT: Developers will be responsible for paying to have existing PG&E distribution facilities relocated or undergrounded, or transmission facilities relocated, if these actions are needed to accommodate their proposed developments. Because relocation and undergrounding require long lead times and are not always feasible, developers should be encouraged to consult with PG&E as early in their planning stages as possible.

COMMENTOR: Jim Ambercrombie, District Manager, PG&E

RESPONSE: Mitigation measure K03, on page K-11 of the Draft Program EIR, indicates that developers will enter into the required agreements with PG&E for the provision of services to the project in accordance with PUC regulations. Developers will need to be responsible for relocation or rearrangement of the existing gas and/or electric facilities required to facilitate each development.

COMMENT: New development facilitated by adoption of the proposed plan will have a cumulated impact on PG&E's system and will require substantial improvement and additions to PG&E's gas and electric facilities outside as well as inside the study area. As each development project is proposed, developers should be required to consult with PG&E. Anticipated expansion of utility facilities needed to service their developments should be covered in any environmental review required for the developers' projects. Adequate land rights for on-site utility facilities needed to serve a

proposed project should be required as a condition of each project's approval. In particular, development in the Bass Lake Road Study Area, along with other ongoing development in El Dorado County, will have cumulative impacts on PG&E's ability to provide electric service to the population in the County. The additional electric load in the areas being developed will require construction of new substation capacity, transmission line interconnections, and distribution circuits to serve the growing area. We are in the process of identifying sites and corridors for these facilities.

As development spreads to the remaining available land in El Dorado County, we are concerned that it will be increasingly difficult to obtain suitable substation sites as well as the associated transmission and distribution corridors needed to serve growth in the areas where the County is approving higher development densities. we feel it is important for the County to understand that expansion of existing utility systems is a necessary consequence of growth and development. As new development is approved, additions and improvements to utility systems must be made to provide energy to the developing areas. These energy facilities have substantially fewer environmental impacts than the development they serve.

COMMENTOR: Jim Ambercrombie, District Manager, PG&E

RESPONSE: Projects are already required to consult with PG&E, and conform to PUC/PG&E requirements prior to extension of service. The scope of a project EIR is largely limited to the environmental assessment necessary to facilitate service to that project. Although such an EIR must include discussion of cumulative impacts, the level of detail need not be as complete as that prepared for project specific impacts. Consequently, project specific EIRs are not commonly recognized as adequate to fully address cumulative impacts.

COMMENT: Siting gas and electric transmission facilities involves a complicated process of weighing engineering requirements against various environmental constraints for a number of alternatives. Transmission lines must be routed close to energy loads to maintain system reliability and minimize drops in electric voltage and gas pressure which occur over extended sections of distribution lines. The siting process must be allowed to be conducted on a case by case basis with no areas precluded from consideration.

RESPONSE: The El Dorado Department of Transportation is the agency responsible for review and approval of infrastructure and utility facilities. Projects are already required to consult with PG&E, and conform to PUC/PG&E requirements prior to extension of service. It is recommended that communication with PG&E be initiated prior to approval of Tentative Maps to insure that adequate space is allotted for utility facilities.

ARCHAEOLOGY AND HISTORY

COMMENT: Archaeologic and historic resources should be preserved where possible. If preservation at the original location is impossible, consider relocation or consolidation with another such site. There are two (2) known bedrock mortar sites. Preserving the more significant site should be the priority and perhaps consolidating the lesser site to the priority location.

COMMENTOR: Jack M. Tyler, Planning Director, El Dorado Hills Community Services District.

RESPONSE: As discussed in Section N of the Draft EIR, an archaeologic survey has been completed for the entire study area. Description of archaeologic and historic resources, their potential value, and recommended mitigation is provided in the Program EIR. Development of parcels which contain archaeologic and/or historic resources will be conditioned to provide appropriate mitigation at the time individual tentative maps are submitted for review and approval.

COMMENT: Having apparently missed the map indicating location of the identified historic sites, I do not know if the prehistoric site in the Bell property oak forest in the east end of Hollow Oak Village in included in this list. If not it should be included.

COMMENTOR: Harriett B. Segel, 2067 Wood Mar Drive, El Dorado Hills.

RESPONSE: The referenced site is designated as PA-89-37, and is identified in the Program EIR. In order to discourage vandalism or destruction, a map depicting the location of identified sites is not included in the Program EIR.

APPENDIX A:

COMMENT LETTERS

El Dorado County Water Agency

July 25, 1991

Mr. Steven Hust, Principal Planner
Community Development Department, Planning Division
360 Fair Lane
Placerville, California 95667

Re: Draft Program Environmental Impact Report,
Bass Lake Road Study Area

Dear Mr. Hust:

Thank you for offering the El Dorado County Water Agency an opportunity to comment on the above-referenced draft program environmental impact report.

I have completed a review of the Water Supply section under the Utilities and Services chapter and offer the following comments:

(1) On page K-1, "improvement of the Sly Park Flashboards" should be "installation of the Sly Park Flashboards."

(2) On page K-1, "expansion of the Bray Treatment Plant in Placerville" should be "construction of the Bray Treatment Plant in Placerville."

(3) On page K-1, "improvement of the Texas Hill Reservoir" should be "completion of the Texas Hill Reservoir."

(4) On page K-2, "Improvement of the Bray Water Treatment Facility" should be "Construction of the Bray Water Treatment Facility."

(5) On page K-2, Table K1 should be corrected as follows:

(a) additional availability for the White Rock Penstock should be 32,800; and for the Small Alder Project, 11,250.

(6) On page K-2, delete "In addition, recent completion of the Hazel Creek Tunnel further enables the District to divert purchased water from PG&E into the Sly Park Reservoir where

360 Fair Lane Placerville, California 95667 (916) 621-5

it can be stored and utilized as needed. Because of the cost in obtaining water through this diversion, it is envisioned as a backup rather than primary source for District water."

The District is precluded from diverting water into Sly Park Reservoir via the Hazel Creek Tunnel at this time because it lacks the necessary water rights permit, Congressional authorization (except for water for agricultural purposes) and an agreement with PG&E. This facility was used on an emergency basis only for one year. Its use would be limited to that basis in the future absent securing the right to divert water through the tunnel.

(7) On page K-5, I concur that the impact of the proposed project on water supply is significant. The average annual amounts could range from 1,956 acre-feet/year to 4,887 acre-feet/year based on the average water use rate per day per dwelling unit provided in the draft Program EIR.

(8) On page K-5, the mitigation measures offered are inadequate. Public Resources Code Section 21002 requires agencies to adopt feasible mitigation measures in order to substantially lessen or avoid otherwise significant adverse environmental impacts. General mitigation measures must be developed and adopted since the proposed project is only general in nature. The proposed mitigation discussed on Page K-5, however, is inadequate in that it defers the obligation to formulate and adopt mitigation until a specific development project is proposed. (Citizens for Quality Growth v. City of Mount Shasta (3d Dist. 1988) 198 Cal.App.3d at 433, 442 [243 Cal.Rptr. 727, 731]; see also Christward Ministry v. Superior Court (4th Dist. 1986) 184 Cal.App.3d 180, 193-195 [228 Cal.Rptr. 868, 874-877].)

As an alternative, the lead agency should consider adoption of the following general mitigation measures:

(a) Plumbing, new and retrofit: Enforcement of water conserving plumbing fixture standards including requirement for ultra low flush ("ULF") toilets in all new construction beginning January 1, 1992.

(b) Water waste prohibition: Prohibition of single pass cooling systems in new connections, nonrecirculating systems in all new conveyor car wash and commercial laundry systems, and nonrecycling decorative water fountains.

(c) Landscape water conservation for single family homes (also for commercial, industrial, institutional, governmental, and multi-family developments, with 3 acres of landscaping or more, if included in proposed project): Installation of more efficient landscapes and water saving practices.

(d) Financial participation in new raw water supply facilities on an equivalent dwelling unit basis or such other basis as determined by the El Dorado Irrigation District.

(e) Installation of separate water delivery systems to large institutional, recreational, or governmental water users so that the use of reclaimed water for landscape irrigation can be implemented.

(f) Plumbing retrofit of offsite existing single family homes, commercial, industrial, institutional, governmental, and multi-family developments to lessen the significant impact on water supply. The retrofit should include low-flow showerhead, toilet, leak repair, and landscape audit.

Your agency must consider the above mitigation measures even though the Local Agency Formation Commission will also have the authority to address the significant impact on water supply (Citizens for Quality Growth, supra, 198 Cal.App.3d at 443, fn. 8 [243 Cal.Rptr. 727, 732). Therefore, I request consideration of the measures for inclusion in the Final Program EIR.

Thank you for your time and consideration.

Sincerely,

Robert J. Reeb

ROBERT J. REEB
General Manager

RJR:
cc: Board of Directors, El Dorado County Water Agency
Wm. Robert Alcott, Manager, El Dorado Irrigation District

HACKARD, TAYLOR & PHILLIPS
A PROFESSIONAL CORPORATION
ATTORNEYS
1435 RIVER PARK DRIVE, SUITE 300
SACRAMENTO, CALIFORNIA 95815
TELEPHONE: (916) 929-5545
TELEFAX: (916) 929-0283

MICHAEL A. HACKARD
JOHN M. TAYLOR
GEORGE E. PHILLIPS
B. DEMAR HOOPER
CRAIG M. SANDBERG
MARCUS J. LO DUCA
CYNTHIA J. PATTON
MICHAEL J. RAINVILLE
M. REED HOPPER
GEORGE T. KAMMERER
JONATHAN C. RIESE
JAMES B. WILEY

August 8, 1991

Steve Hust
Principal Planner
El Dorado County Planning Department
360 Fair Lane
El Dorado Hills, CA 95667

Re: Bass Lake Road Study Area
Comments to Draft EIR (SCH No. 90020375)

Dear Steve:

These comments to the draft Bass Lake Road Study Area Program Environmental Impact Report (DEIR) are submitted on behalf of the Chas Company, one of the project applicants. Generally, the document appears to be complete and adequate in its discussion of the project and the environmental conditions. However, we feel the following specific comments are warranted:

1. Wetlands Mitigation.

On page F-18 of the DEIR, mitigation measure F03 requires evidence of compliance with Department of Fish & Game policies and Clean Water Act requirements. Although this is a reasonable requirement, the mitigation measure continues on to require that a wetland assessment and mitigation plan be submitted with each project as a Supplement to the EIR. The adoption of this wording in the mitigation measure presupposes the necessity to prepare a Supplement to the EIR which, of course, requires expensive and time consuming publication and circulation. There is no evidence that each project will have significant wetlands impacts triggering the requirements for a Supplement to the EIR. The mitigation measure

should be limited to complying with the applicable agency regulations and providing that information to the County at the time of map approval.

2. Water Supply.

The discussion on water supply begins on page K-1 of the DEIR and states that demand for water in El Dorado County exceeds the El Dorado Irrigation District's (EID) firm yield. It is more accurate to state that EID is presently studying its firm yield water supplies and demand, and that the current studies which have been made available to the public indicate there is not a water deficit in the County. EID has directed its staff to work in conjunction with an appointed committee consisting of members of the community to study the reports and make a recommendation to the EID Board of Directors regarding the extent of water availability in the district. Their report is due within the next few weeks.

There are adequate mitigation measures available to reduce the identified impact regarding water supply which are not identified in the DEIR. As correctly identified in the DEIR, there are a number of water projects being conducted by EID which will ultimately result in increased water supplies to the district. Some of these improvements will be on line prior to, or concurrently with, the projected times the applicants' projects will require water supplies. Further, there can be no impact on water supplies resulting from the projects until such time as homes are actually constructed on the property. Consequently, a condition which prevents the projects from going forward until such time as EID can irrevocably commit water supplies to them fully mitigates any potential impact. The tentative maps for each of the individual projects within the study area can be conditioned to prevent the recording of a final map until a firm commitment of water is available from EID. Absent such a firm commitment, no lots will be created and consequently, no homes can be constructed.

To provide mitigation for the cumulative impacts on future county water supplies, conditions on the projects could require that each lot created be required to pay a fee, the amount of which shall be based on a reasonable estimate of the cost of future water improvements to fund future water projects.

Conditions of approval based on the foregoing will fully satisfy the requirements of the California Environmental Quality Act because they can "reasonably be expected to reduce adverse impacts" (CEQA Guidelines 15126). There is no question regarding their implementation because the lead agency, the County, retains full control. Such mitigation measures should be suggested in the DEIR for future projects. With such implementation, the impacts should be identified as "mitigated."

Another mitigation for water supply is the potential use of well water (wells exist on the properties) for common area landscaping, such as parks and street medians.

3. The DEIR identifies the need for a fire station site (K-14) and a school site (K-19) within or near the study area as conditions which make the impacts on the respective districts significant and unmitigated. Clearly, however, there is adequate mitigation (identify and obtain sites). Until that time, projects within the study area within which there are no suitable sites may be prepared to go forward. Provision should be made within the identified mitigation measures allowing projects to mitigate this identified impact by receiving statements from the respective districts that no sites are identified within the project. Without such provision, all projects coming forward will be faced with the program EIR's finding of significance when, in fact, that particular project may have no practical method of mitigation for the impact.

4. The following are a few editorial notes:

a. The second "bullet" on page B-17 and the third "bullet" on page B-18 are repetitive.

b. On page B-6, impacts associated with gas furnaces and wood burning devices are identified in summary as "mitigated" (M) but as "less than significant" (L) on page G-18.

c. On page B-7, the summary identifies noise resulting from the fire station as mitigated (M), but the text shows such impacts as less than significant (L) on page H-11.

Thank you for the opportunity to comment on this Draft EIR.

Very truly yours,

Craig M. Sandberg

CMS:jg
cc: John Bayless, Chas Company
CMS/1824.006/L.SH

1991 - 1992 Board:

El Dorado Hills /Salmon Falls Area Plan Advisory Committee

- Norm Rowett
  Chairperson
  933-2211
- Wayne Lowery
  Vice Chairperson
  Area Plan Review
  933-3821
- John Sorensen
  Vice Chairperson
  Project Review
  933-3106
- Harriett B. Segel
  Secretary/Treasurer
  933-2038

August 7, 1991

Daryl Rasmussen, Chair
El Dorado County
Planning Commission
361 Fair Lane
Placerville, CA 95667

Re: The Hollow Oak Subdivision Environmental Impact Report
The General Bass Lake Development Area EIR

Dear Sir,

Other than the needed update to the Assessor Parcel Numbers for parcels in the Hollow Oak project area and the incomplete representation of wooded areas (Figure F2, Bass Lake General Development Area EIR), we hope to avoid repetitive comments.

The following items apply to both the Hollow Oak Village EIR and the General Bass Lake Development Area EIR.

BASS LAKE ROAD ALIGNMENT (Route A):
If it has not been formally proposed previously, we propose an adjustment of the adopted Bass Lake Road alignment currently planned to cut through the hill immediately north of proposed Hollow Oak Village/adjacent to the current Bass Lake Road alignment immediately south of Bass Lake.

PROPOSAL (Route B): Commencing near the southeast corner of the Wright property, which is adjacent to Hawk View Road on the south side, curving the alignment to proceed nearly directly north through APNs 103-060-04, -03, -02 into the EDH Specific Plan Area sections J2 and J3. The alignment would then reconnect with the current road alignment south of Bass Lake.

Routes A and B both involve a significant cut in a hillside. However, there are considerations which make Route B preferrable. to Route A. Route C has not been formally considered by our Committee.

Route "A" (the presently approved alignment):
This route is cut through a tree covered hillside with many rock outcroppings. At the highest part of the resulting cut, the south side of the cut is ca. 37 1/2 feet. The hill where center line would be is ca. 33 1/2 feet. The top of the north side of the cut is ca. 31 feet. With 2 to 1 slopes, the cut is approximately 300 feet wide from north to south top of cut.
When the Committee supported this route, it was thought that the road would go over a hill so the cut would not be that signficant. Also, neighboring property owners did not welcome the road widening so it was placed on the most expedient as well as reasonable route. Neighbors attitudes, as indicated by sale of properties to developers, have changed. The best, most aesthetic route, not the most expedient, can now be achieved.

2067 Wood Mar Drive • El Dorado Hills, CA 95630

The resulting 'remainder' of the hill on the alignment's north side would hide most of the significant south side cut if it remained. Economics, however, may lead to removal of this remainder area so it could be utilized in the approved land use - commercial. The exposed south cut could then be seen for a significant distance from the northeast to the northwest of the cut and create an eyesore.

Even if the remainder was not removed, the construction costs (for dirt and rock removal) would be more significant for this route. In addition, part of the south wall cut would most likely be visible over the remainder area. The traffic noise over the lake might be lessened, but it would be the same for the residential areas to the south.

Route "B" (the current APAC proposal):

The route, if started at the southeast corner of the Wright property would require fill at the east end of the Wright parcel which could be brought from the cut in the hillside of the three parcels north of Hawk View Rd. The route could start at Hawk View Rd, but the resulting curve may not be acceptable to DOT.

Either route would involve a minor to a major cut in the hillside of these parcels. The road noise factor would be similar for the east side of the road. Placing the route farther west might lessen the noise factor for the Hawk View Village area and for the houses on the west end of these parcels.

Route "C" (recent DOT idea):

Since the originally approved school site is no longer viewed as the desired school site, the notion of swinging the route farther west so that it goes along the ridge between the 40 acre (proposed Hawk View Ridge) and the 3 parcels east of the ridge. Just north of Hawk View Road, the ridge drops down 6+ feet to the road. Dirt removed to flatten the ridge could be used as the needed fill dirt for the alignment in the 3 parcels south of Hawk View Road. This route would eliminate deep cuts but would also eliminate the three trees near the top of the ridge, just north of Hawk View Road. Residential on both sides of the alignment would experience traffic noise.

We wish Routes B & C to be included as alternatives to the currently adopted route.

For aesthetic and monetary reasons primarily, we voted to support Route B. During the past year, the circulation pattern of at least three approved maps have been changed to lessen the negative impact on the topography by creating less cut and fill. This in turn preserved trees and improved the general aesthetics of the project area. The residents of our area fully support this philosophy.

OTHER PLANNING CONSIDERATIONS:

Even though natural elements and necessary man made considerations such as circulation are highlighted in an EIR, other county ordinances or soon-to-be county ordinances will impact the development of the General Bass Lake project area. The proposed Highway 50 Corridor ordinance is such an ordinance. However conceptual it's status at this time, discussion of the potential impact of this ordinance would appear appropriate.

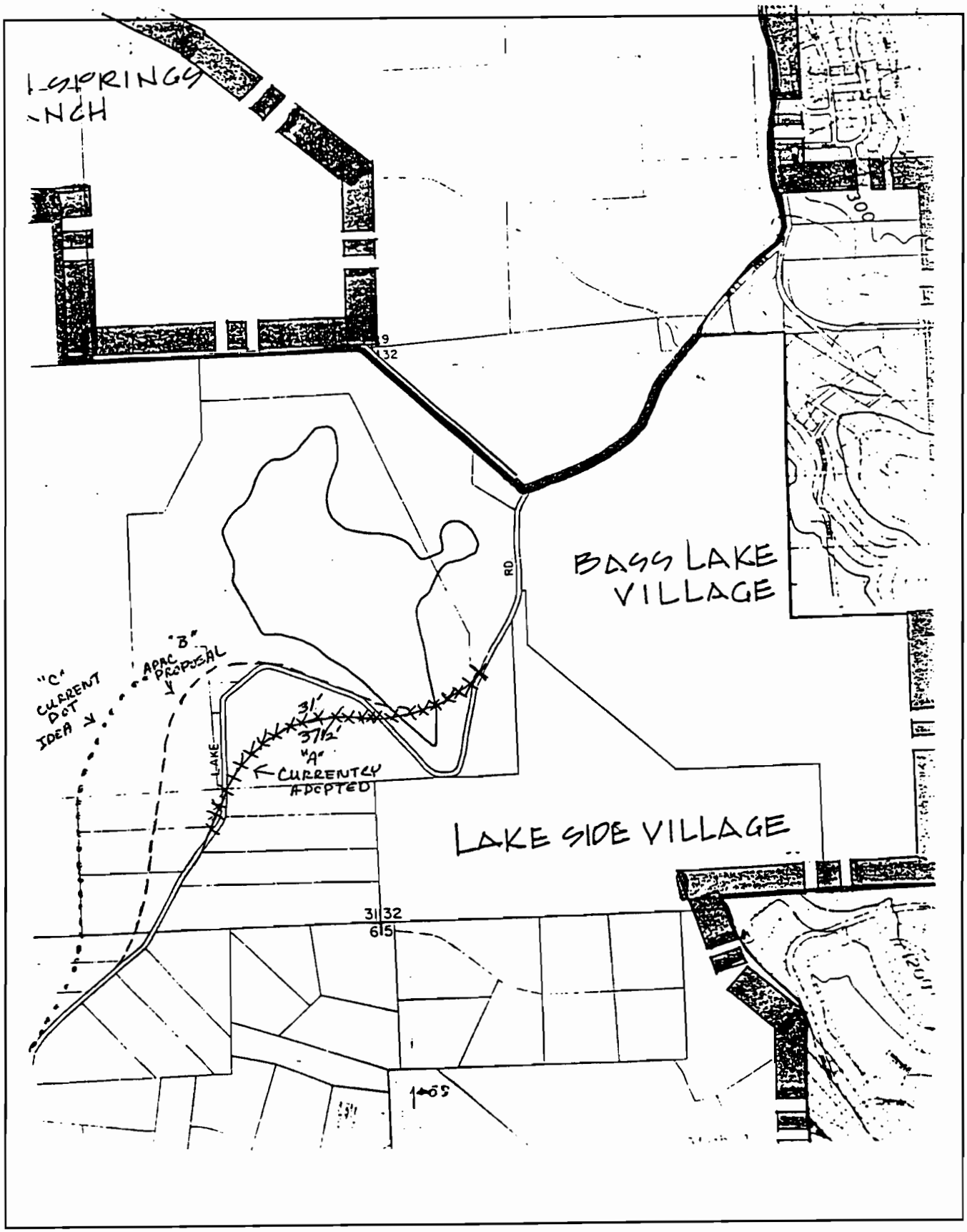
Sincerely,

Harriett B. Segel

Harriett B. Segel
Secretary

1 Atch

- 2 -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"B"
APAC PROPOSAL
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EL DORADO HILLS
COMMUNITY SERVICES DISTRICT

1021 HARVARD WAY • EL DORADO HILLS, CALIFORNIA 95630 • TELEPHONE 916-933-6624 • FAX 916-933-6359

August 6, 1991

Mr. Larry Walrod, Planning Director
El Dorado County Community
Development Department
360 Fair Lane
Placerville, CA 95667

Attention: Steven Hust
Re: Bass Lake Road Study Area Program EIR

Dear Mr. Walrod:

The El Dorado Hills Community Services District (EDHCSD) submits the following comments concerning the above referenced program EIR.

The sense EDHCSD staff gets from those preparing and giving preliminary reaction to this Program EIR is, that a little more time may have reduced the possibility of errors of omission and commission in its findings. We particularly note that in two instances, i.e., the Traffic Study and Wetland /Biotic Resources assessments, complaint about the "time crunch" led to mis-assumptions noted by County staff in the traffic study and the other natural resource instance, one is left wondering if there are unaddressed impacts needing mitigation.

Nevertheless, using Table B1, "Summary of Impacts and Mitigation Measures," as an outline guide, EDHCSD's specific concerns are as follows:

Geology, Seismicity, and Soils
On pg. B-2 it is expected that County DOT will enforce grading requirements. Our concern is longer ranged, i.e., the effect of runoff from the developed areas and the need for flood retention ponds and silt basins to accommodate that runoff, so it does not adversely affect District southerly and westerly areas along Carson Creek. EDHCSD intends park and recreation development nearby these southerly drainage corridors in years to come.

Hydrology
If the single proposed flood retention pond mentioned on pg. B-3 is the sole mitigation measure for the whole of the area, it seems to be mis-sited to do the job needed. Further study and additional flood and silt basins need to be considered before these issues should be considered under control.

Vegetation and Wildlife
On pg. B-4 and B-5 more attention needs to be given to the mitigation of wildlife habitat degradation. The County has ample opportunity at this point to cause dedication of more open space parcels to mitigate the impacts anticipated by western slope development. The El Dorado Hills Specific Plan open space program more nearly mitigates such impacts and may well serve as a model for the County to point to for such planning.

Noise
Significant landscape and engineering design measures will need to be implemented to mitigate the traffic noise anticipated to be generated along Hwy 50 and the Bass Lake Road corridors. Specifically along Bass Lake Road, our experience along El Dorado Hills Blvd. suggests that fairly deep setbacks to accommodate berms and masonry walls, as well as significant landscaping to soften their visual appearance, will be necessary. These deeper setbacks should help to provide space for bicycle and pedestrian trails which will also reduce the number of auto trips per day along Bass Lake. Such mitigation efforts would be consistent to 2010 General Plan Update Goals and Policies.

Land Use
Without a doubt, zoning to reduce the current General Plan allowances for density must be employed to mitigate over-building the land, pg. B-8. Such reduction measures will reduce the accumulated impacts that this area of the County is now or will sustain. Failing this, 25 years hence, the County will sorely wish they'd employed stricter zoning and reduced densities to have retained some vestige of its former living appeal. However, sufficient density needs to be allowed to financially support development of an adequate infrastructure to service the area.

Recreation
Proposed mitigation measures for recreation planning and development are insufficient as proposed on pgs. B-8 and B-9. If present Quimby and County Ordinance efforts stand alone without a capital impact fee being imposed, there will not be sufficient revenue to improve the lands dedicated for recreation purposes. The County and EDHCSD must implement an impact fee program similar to that imposed by School Districts, Fire Districts, and the County's various Departments, who have recognized their own needs and imposed such fees to affect an equitable resolution for them. Additionally, Special Assessment Districts to fund major improvements and/or operation and maintenance costs, must be formed to assure a viable, abiding recreation resource for the new residents of El Dorado Hills.

Parksites should normally be placed avoiding chaparral and subsurface rock formations to permit grading for playing surface construction. Quimby exactions should be managed to allow for consolidations of area to assure parks of practical size, number and placement. Land and/or a water resource ranging in size from 35-50 acres needs to be assembled in the area to satisfy the need for a community/regional park.

Traffic circulation patterns need to consider connecting parks, not only by motorized vehicles, but by bicycle, walking and hiking. Open space corridors can and should be used for buffering subdivisions and villages, providing visual relief from buildings and formalized improvements, but also as corridors for protecting native wildlife and vegetation habitat.

Water
Given normal conditions, no development should occur without EID and County water agencies being able to give assurance to property owners of an uninterruptible water supply. Further, wastewater treatment should be given the same priority and property owners the same assurances that such services will remain available and affordable, pg. B-11. Useful and safe gray water applications should be considered for landscaped buffers and park sites.

Police Service
Given the number of proposed new peace officers per 1,000 population, one immediately asks where are the 11 existing officers for the EDHCSD residents of 1991. Is this proposed mitigation, B-12, needful, realistic, attainable?

Archaeologic and Historic Resources
These should be preserved where possible. If preservation at the original location is impossible, consider relocation or consolidation with another such site. There are two (2) known bedrock mortar sites. Preserving the more significant site should be the priority and perhaps consolidating the lesser site to the priority location.

If you have questions or comments on this information please direct them to our attention.

Sincerely,

Jack M. Tyler
Planning Director

\p91\eirbslk.1

RECEIVED

JUL 05 1991

COMMUNITY DEVELOPMENT DEPT.

EL DORADO COUNTY SHERIFF'S DEPARTMENT
INTER-OFFICE MEMO

TO: Community Development
Planning Division
Attn: Steven Hust

DATE: July 3, 1991

FROM: Capt. Charles Browne

SUBJECT: Bass Lake Road
Study Area
R.C. Fuller Assoc.

This application represents 2901 residential lots. If you use the premise that the average number of occupants per residence is four, this will increase the population of El Dorado County by 11,604.

An increase in the population is a concern to the Sheriff's Department due to the impact it places on the Department to provide adequate law enforcement protection with existing personnel. In order for the Sheriff's Department to provide adequate law enforcement protection and mitigate the adverse impact that an increase in population has on providing services, an appropriate number of sworn personnel needs to be maintained.

A desirable ratio of sworn personnel is 1.8 officers per 1,000 population. Based upon this desirable ratio, to mitigate the impact of the increased population that this application will create, the Sheriff's Department needs to increase its sworn personnel by 20.88. Associated equipment cost will be approximately $104,400.00.

STATE OF CALIFORNIA · BUSINESS TRANSPORTATION AND HOUSING AGENCY PETE WILSON, Governor

DEPARTMENT OF TRANSPORTATION
DIVISION OF AERONAUTICS
1130 K STREET - 4th FLOOR
MAIL: P.O. BOX 942873
SACRAMENTO, CA 94273-0001
(916) 322-3090
TDD (916) 445-5945

July 15, 1991

Mr. Steve Hust
El Dorado County
Community Development
360 Fair Lane
Placerville, CA 95667

Dear Mr. Hust:

El Dorado's DEIR for the Bass Lake Road Study Area; SCH #90020375

The California Department of Transportation, Division of Aeronautics, has reviewed the above-referenced document with respect to the Division's area of expertise as required by CEQA. The following comments are offered for your consideration.

According to the draft EIR, portions of the project site are located within a mile and a half of the Cameron Air Park Airport. We would, therefore, like to take this opportunity to notify the Lead Agency that pursuant to the Education Code, Section 39005, an investigation must be conducted by the Division of Aeronautics for a proposed school site within two miles of an airport runway. The school district should be advised that they will be required to submit written notification to the State Department of Education prior to land acquisition.

Thank you for the opportunity to review and comment on this proposal.

Sincerely,

SANDY HESNARD
Environmental Planner

cc: State Clearinghouse
Cameron Air Park Airport

AUG-

STATE OF CALIFORNIA--BUSINESS, TRANSPORTATION AND HOUSING AGENCY PETE WILSON, Governor

DEPARTMENT OF TRANSPORTATION
DISTRICT 3
P.O. BOX 942874-MS41
Sacramento, CA 94274-0001
TDD 916-741-4509
FAX 916-323-7669
916-327-4676

August 8, 1991

CELD040
03-ED-50 PM 3.13
Bass Lake Rd. Study
Area Program
DEIR
SCH: #90020375

Mr. Larry Walrod
El Dorado County
Community Development Department
360 Fair Lane
Placerville, CA 95667

Dear Mr. Walrod:

Thank you for the opportunity to review and comment on the above referenced document.

COMMENTS:

The proposed projects in this area are less dense than the current General Plan permits, however, they still significantly impact Highway 50 and the Bass Lake Interchange with State Route 50. The document indicates that most of the impacts to these facilities are "future conditions without the project" and therefore, the project is not responsible for mitigation. In fact, these impacts are cumulative impacts from this proposal and other development impacts that the County has approved or is planning to approve. The Draft Environmental Impact Report (DEIR) discusses improvements to the interchange as well as additional mainline lanes on Highway 50 in their modeling of future operating conditions (See page J-9), but has not indicated how these improvements are to be funded. These projects are not currently programmed for State funding and we do not anticipate State funding for them in the foreseeable future. The necessity for these improvements is caused primarily by cumulative local development and any such improvements need to be funded consistent with the California Transportation Commission Interchange Cost Sharing Policy.

El Dorado County in cooperation with Caltrans should begin the development of a Project Study Report (PSR) for the reconstruction of the Bass Lake Road/State Route 50 Interchange.

It should be noted the required improvement to State Route 50/Bass Lake Road Interchange should be designed to Caltrans current standards. The westbound 2-lane on-ramp will require an 1000-foot acceleration lane and the eastbound 2-lane off-ramp will require a 1300-foot auxiliary lane as shown on Figure 504.8B of the Highway Design Manual (attached). The feasibility of an L-9 configuration for the SR 50/Bass Lake Road Interchange should be investigated specifically with regard to maximum ramp grades and structure horizontal and vertical clearances.

Traffic counts done by Omni-Means for the purpose of this study were taken on January second, a holiday/vacation week. No AM turn movements were taken, nor were any counts taken by TJKM or Omni-Means during a time when school would be in session. The missing AM counts would be needed to determine needs for Ramp Metering, Intersection Improvements and Interchange Geometrics. Caltrans requests that these issues be addressed in the final environmental document.

Depending on the time frame of the project, Ramp Metering may be required by Caltrans for the westbound on-ramp to maintain an acceptable level of service on Highway 50.

There seems to be a problem in semantics when referring to the Bass Lake Road Undercrossing Structure throughout the report. The structure is referred to as an "underpass" on the last paragraph of page J-17 and as an "overcrossing" on the first paragraph on page J-18.

It should be noted that whenever an existing structure is to widened, Caltrans' policy is to require a structural analysis of the proposed widening to determine its conformance to current seismic standards. The analysis would make recommendations for retrofit or structure replacement. The seismic retrofit or structure replacement costs would be included in the bridge widening cost estimate.

Caltrans recommends that the Country Club Drive intersection should be relocated as soon as possible. Consideration should be given to signalization of the ramp intersections at Bass Lake Road/Highway 50.

Caltrans would like to suggest a meeting with the El Dorado County Planning and Transportation staff to address transportation issues in this area. Please contact Jody Lonergan Chief, Planning Branch B, at 916-741-4532 to arrange this meeting.

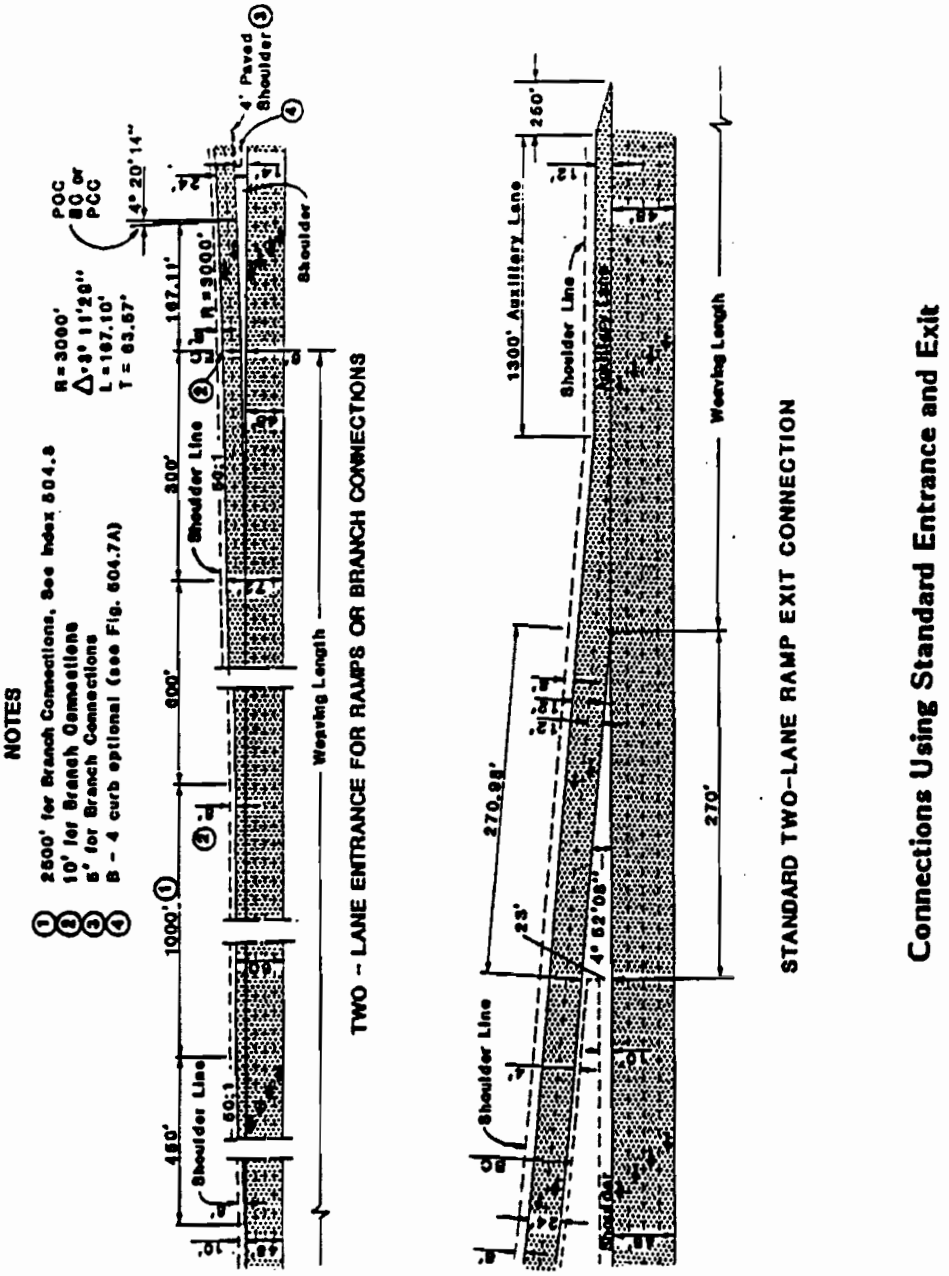
If you have any questions regarding these comments, please contact Sharon Scherzinger at 916-324-6642.

Sincerely,

ROBERT M. O'LOUGHLIN
Chief, Planning Branch C

Attachment

Figure 504.8B



Pacific Gas and Electric Company
4636 Missouri Flat Road
Placerville, CA 95667
916/621-7274

James M. Abercrombie
District Manager

July 29, 1991

Steven Hust
El Dorado County
Community Development
360 Fair Lane
Placerville, CA 95667

Dear Mr. Hust:

RE: BASS LAKE ROAD STUDY AREA PROGRAM EIR 90020375

Thank you for this opportunity to review and comment on the Bass Lake Road Study Area Program EIR.

PG&E owns and operates the El Dorado-Gold Hill 115kV, and the Gold Hill-Martell 60kV transmission lines near the southerly boundary of the study area. The Gold Hill-Martell 60kV pole line will be rebuilt to a 115kV pole line in the near future. To ensure that site development activities such as lot layout, (transmission lines should not be placed in backyards), building placement, grading, and landscaping do not impair the safe, reliable operation of PG&E's existing facilities or restrict PG&E's access to these facilities, developers should be required to submit to PG&E all development plans which may adjoin utility facilities as soon as their plans are available. As a condition of approval of any proposed development, the County should require the developer to obtain PG&E's consent to any development plans which may impact PG&E facilities.

Electric and gas service to the area will be supplied by PG&E in accordance with the rules and tariffs of the California Public Utilities Commission. Gas service is not presently available in the study area, however, proposed developments in the surrounding areas are expected to extend gas from El Dorado Hills towards the study area.

Developers will be responsible for paying to have existing PG&E distribution facilities relocated or undergrounded, or transmission facilities relocated, if these actions are needed to accommodate their proposed developments. Because relocation and undergrounding require long lead times and are not always feasible, developers should be encouraged to consult with PG&E as early in their planning stages as possible.

New development facilitated by adoption of the proposed plan will have a cumulated impact on PG&E's system and will require substantial improvement and additions to PG&E's gas and electric facilities outside as well as inside the study area. As each development project is proposed, developers should be required to consult with PG&E. Anticipated expansion of utility facilities needed to service their developments should be covered in any environmental reviews required for the developers' projects. Adequate land rights for on-site utility facilities needed to serve a proposed project should be required as a condition of each project's approval.

In particular, development in the Bass Lake Road Study Area, along with other ongoing development in El Dorado County, will have cumulative impacts on PG&E's ability to provide electric service to the population in the County. The additional electric load in the areas being developed will require construction of new substation capacity, transmission line interconnections, and distribution circuits to serve the growing area. We are in the process of identifying sites and corridors for these facilities.

As development spreads to the remaining available land in El Dorado County, we are concerned that it will be increasingly difficult to obtain suitable substation sites as well as the associated transmission and distribution corridors needed to serve growth in the areas where the County is approving higher development densities. We feel it is important for the County to understand that expansion of existing utility systems is a necessary consequence of growth and development. As new development is approved, additions and improvements to utility systems must be made to provide energy to the developing areas. These energy facilities have substantially fewer environmental impacts than the development they serve.

Because of the need to maintain an integrated system and provide energy services to developed areas from energy sources in more remote areas, utility facilities must be allowed in all zoning districts, General Plan designations, and resource areas. These facilities include but are not limited to gas and electric transmission lines, electric substations and auto-transformers, gas regulator and valve lots, and telecommunication and telemetering facilities. In the future, these facilities may also include new technologies and systems which could make it possible to construct relatively small-scale, environmentally benign generation and storage units near the point of use. Future technologies and systems on the horizon include battery storage, fuel cells, natural gas engines, and photovoltaic cells.

Siting gas and electric transmission facilities involves a complicated process of weighing engineering requirements against various environmental constraints for a number of alternatives. Transmission lines must be routed close to energy loads to maintain system reliability and minimize drops in electric voltage and gas pressure which occur over extended sections of distribution lines. The siting process must be allowed to be conducted on a case by case basis with no areas precluded from consideration.

We look forward to working with the County of El Dorado and developers in accommodating planned growth and serving new customers in a timely and cost-effective manner. For additional information, you may contact Mary Hinegardner in our Sacramento office at (916) 923-7252, or Dick Wright in our Placerville office at (916) 621-7235.

Sincerely,

JIM ABERCROMBIE
District Manager

JMA:sj

El Dorado Irrigation District

2890 MOSQUITO ROAD • PLACERVILLE • CALIFORNIA 95667-1761 • PHONE (916) 622-4513

In reply refer to: E0891-364

August 5, 1991

Steve Hust
El Dorado County
Community Development Department
360 Fair Lane
Placerville, CA 95667

Subject: Bass Lake Road Study Area Program EIR

Dear Mr. Hust:

In order for the District to use this EIR, it must contain a discussion of the environmental effects connected with construction of the water and sewer infrastructure necessary to bring service to the study area. We believe sufficient information exists relative to both on-site and off-site water and sewer system improvements to allow an environmental review at this time rather than at the time engineering plans are submitted. (Refer to attached Pages K-5 & K-7). Including this review in the program EIR will eliminate the need for an additional review document at a later date.

In addition to the above, we have marked up the attached portions of the EIR pertaining to water and sewer.

Please call for additional information or discussion of this matter.

Sincerely,

Lewis W. Archuletta

Lewis W. Archuletta
Planner

LWA:ref

cc: Enclosure

IMPACTS	MITIGATION MEASURES
PUBLIC UTILITIES	
WATER	
[S] Assuming an average water use rate of 600 gallons per day per dwelling unit, the 2,901 homes proposed in the study area will require an average of 1,740,600 gallons per day. Using a maximum day demand of 1,500 gallons per household, development in the study area could generate a peak demand for 4,351,600 gallons per day. Provision of this water will require new transmission and distribution lines from the Gold Hill intertie into the study area, and LAFCO approval of annexation of those properties not currently within the District. Site specific environmental review of the proposed water lines will be required at the time engineering plans are submitted. This impact must be recognized as significant because sufficient water is not available to serve development. This impact could be mitigated to a less than significant level at a future date when/if water becomes available. At that time, implementation of measure K01 is suggested to be sufficient to reduce the magnitude of this impact to a less than significant level.	J02 Developments within the Bass Lake study area will pay County transportation fees, participate in an Area of Benefit, or other similar financing mechanism to provide required transportation facilities. written documentation K01 Those projects which are not currently within the District will be required to petition LAFCO for annexation. As a responsible public agency, LAFCO cannot approve such annexation unless it reasonably concludes that there is adequate guarantee that future water will be available to serve new development. Each project will be required to obtain a ~~"ability to serve" letter~~ from EID, ~~Such a letter cannot be issued until sufficient water supply is available and the moratorium is lifted.~~ Pursuant to Resolution No. 90-39, EID has indicated that it will only issue water meters when new sources of water become available. Consequently, service to the project area will not have a significant impact on the cost of adequacy of service within the District. indicating EID's ability to provide service to the project at such time as service is projected to be needed.
[M] At the rate of 300 gallons of wastewater per day per dwelling unit, the 2,901 homes anticipated to be developed within the study area would require treatment for 870,300 gallons per day. At the peaking factor of 2.5 for wet weather conditions, the peak demand would be for treatment of 2,175,750 gallons per day. Provision of this amount of treatment will require extension of new collection lines and, coupled with other anticipated development in the vicinity, will require expansion of treatment facilities. This impact will be mitigated to a less than significant level through implementation of mitigation measure K02.	K02 Presently proposed capacity with programmed expansions are adequate to handle anticipated growth in the near term, as described above. For the long term, other options will need to be examined by EID to assure that capacity for ultimate needs is available. In accordance with EID and ~~PUC~~ regulations, developers will be required to enter into the necessary service agreement(s) with EID. Included in these agreements will be developer installation of conveyance facilities in accordance with EID requirements. Parcels not already within the District will require annexation. EID is an independent special District not subject to the P.U.C.

Although this expansion is partly in anticipation of additional entitlements from Folsom Lake, the major impetus is to enable the District to utilize a large portion of its Folsom Lake water during the winter when pumping is relatively inexpensive, thus saving the District's gravity fed sources for the summer season.

Because most of the existing residences utilize private wells, current water usage in the study area is unknown. For planning purposes, EID recognizes a consumption rate of 1,500 gallons of water per equivalent dwelling unit (EDU) per day as maximum day demand. Average day demand is 600 gallons per day per EDU, or 0.67 acre-feet per year. An EDU is defined as an average single family home with 2.7 persons.

Omni·Means has prepared a preliminary infrastructure plan for extension of water to the study area. This plan is presented in Figure K1. Water service to the study area would be extended from the Gold Hill Intertie. The Gold Hill intertie is an 18" line located adjacent to Bass Lake north of the study area. Treated water is conveyed ~~in the~~ intertie, and extension of water to the study area would not be routed through the Bass Lake Treatment plant. According to the Omni·Means report, the basis for the trunk water distribution system is a study ~~being~~ prepared for EID by CH2MHill consultants. As shown in Figure K1, the foundation of the system is a 24" trunk line which would feed water from the Gold Hill intertie to a 3 million gallon storage system located in the Bell Ranch project. A looped system using 10" water line would be created from the storage tank(s) to serve development on the east side of Bass Lake Road. Eventual extension of service to the west side of the road would be provided through a 20" water line in Bass Lake Road which would be extended directly from the Gold Hill intertie.

IMPACTS

As discussed in the Introduction, impacts are identified in this section as follows: [L] Less than significant, [S] Significant, or [M] Mitigated to less than significant.

S Assuming an average water use rate of 600 gallons per day per dwelling unit, the 2,901 homes proposed in the study area will require an average of 1,740,600 gallons per day. Using a maximum day demand of 1,500 gallons per household, development in the study area could generate a peak demand for 4,351,600 gallons per day. Provision of this water will require new transmission and distribution lines from the Gold Hill intertie into the study area, and LAFCO approval of annexation of those properties not currently within the District. Site specific environmental review of the proposed water lines will be required at the time engineering plans are submitted. ??

This impact must be recognized as significant because sufficient water is not available to serve development. This impact could be mitigated to a less than significant level at a future date when/if water becomes available. At that time, implementation of measure K01 is suggested to be sufficient to reduce the magnitude of this impact to a less than significant level.

MITIGATION MEASURES

written documentation

K01 Those projects which are not currently within the District will be required to petition LAFCO for annexation. As a responsible public agency, LAFCO cannot approve such annexation unless it reasonably concludes that there is adequate guarantee that future water will be available to serve new development. Each project will be required to obtain a ~~an "ability to serve" letter~~ from EID. ~~Such a letter cannot be issued until sufficient water supply is available and the moratorium is lifted.~~ Pursuant to Resolution No. 90-39, EID has indicated that it will only issue water meters when new sources of water become available. Consequently, service to the project area will not have a significant impact on the cost of adequacy of service within the District.

Indicating EID's ability to provide service to the project at such time as service is projected to be needed.

PLANNING CONSIDERATIONS

- Subdivisions approved within the study area should be required to include water conserving design features. Such features could include: use of low water use landscaping; water metering; penalties for excessive use; use of recycled water for landscaping; and designation of groundwater recharge areas if geologically feasible.

Recycled water from EID is not available to this area.

Is use of recycled water from individual dwellings allowed by County Environmental Health Dept.?

SEWER SERVICE

In addition to providing water for domestic use, EID also maintains and operates the wastewater treatment facilities serving development in western El Dorado County. The Bass Lake study area is served by two treatment facilities, the El Dorado Hills wastewater treatment plant and the Deer Creek wastewater treatment plant. The division between the service areas of the plants is the Section line located approximately one-half mile east of Bass Lake Road. Development west of this Section line will be served by the El Dorado Hills facility, while development to the east will be served by the Deer Creek facility. Annexation into the District is a prerequisite to service.

The El Dorado Hills treatment plant has an average dry weather flow (ADWF) capacity of 1.6 mgd. Typical flows of 1.1 to 1.3 mgd currently occur at the plant. Expansion of the plant to 2.7 mgd is proposed to occur in 1993-94. In conjunction with this expansion, the level of treatment will be elevated from secondary to tertiary. The Deer Creek treatment plant has an ADWF capacity of 2.4 mgd. Under present conditions, typical flows of 1.8 mgd occur. This facility is scheduled to be expanded in 1993-94 to provide treatment capability of 5 mgd.

As growth continues, it is anticipated that operation of the wastewater treatment facilities will become more complicated. In addition to the increased volume of effluent requiring treatment, more stringent discharge constraints and encroaching urban land uses are anticipated to complicate operation of the existing facilities. Development has already begun to encroach on the El

Dorado Hills facility. Although the presently proposed expansions are anticipated to be sufficient for continued growth in the immediate future, the District is evaluating other long term solutions which might exist. Two of these options include development of a regional plant near Latrobe Road, which would allow eventual closure of the El Dorado Hills facility, and the partial bypass of sewage from the Deer Creek facility.

EID utilizes a wastewater generation rate of 300 gallons per day per single family dwelling unit (ADWF) with a peaking factor of 2.5 for wet weather conditions.

Omni·Means has prepared a preliminary infrastructure plan for extension of sewer service to the study area. This plan is presented in Figure K2. The closest sewer connection to the eastern side of the study area is to the infrastructure in Bar J Ranch (Camerado Oaks) immediately adjacent to the study area. On the west, the closest sewer main is located in Silva Valley Road. As shown in Figure K2, construction of a sewer main will be required along Carson Creek from the study area to Silva Valley Road. The 24" trunk sewer line along Carson Creek is already proposed to serve El Dorado Hills. However, construction of that line is not proposed to occur in time to serve initial development in the study area. Preliminary discussions have been held with the El Dorado Hills Development Company regarding the feasibility of connecting a sewer trunk to their proposed 24" line along Carson Creek. While it is likely that El Dorado Hills may not construct the proposed 24" trunk line by the time it could be needed by the Bass Lake Group, it appears that an agreement could be reached that would allow the Bass Lake Group to construct the line across El Dorado Hills property. Site specific environmental review of the proposed sewer line will be required at the time engineering plans are submitted.

THE HOST BISTERLY 63 LOTS OF HOLLOW OAKS SUBD WILL GRAVITY FLOW THROUGH EXISTING SEWER MAINS/N HOLLYWOOD DRIVE

FOR MAJORITY OF THE SPECIFIC PLAN AREA

?

IMPACTS

As discussed in the Introduction, impacts are identified in this section as follows: [L] Less than significant, [S] Significant, or [M] Mitigated to less than significant.

PROPOSED SEWER SYSTEM | FIGURE K2

EL DORADO UNION HIGH SCHOOL DISTRICT

August 8, 1991

Mr. Steven Hust, Planner
El Dorado County Community Development
360 Fair Lane
Placerville, CA 95667

RE: Bass Lake Road Study Area Program EIR

Dear Mr. Hust:

We have reviewed the EIR for the Bass Lake Road Study Area and agree with the analysis of the impact on the El Dorado Union High School District and the mitigation measures to be imposed. However, there are several technical errors which we would like to bring to your attention for correction in future drafts.

Our district has been identified as a "Unified" district (pp K-16, K-17, R-1), while we are a Union High School District. Because a unified district educates students in grades K-12, and we cover grades 9-12 only, this could confuse some readers.

Our Pondorado Alternative Education Center has been incorrectly identified as Ponderosa Alternative Education (p. K-17).

The EIR incorrectly indicates that we have acquired a site for a new school near the intersection of Bass Lake Road and Green Valley Road (p. K-18) when we have, in fact, only considered the acquisition of a site in that area and have not finalized any site purchase.

Regarding the changes of receiving State funding (p. K-18, 2nd paragraph, last sentence), the changes of receiving State funding on a 50/50 matching program have typically been good in the past, but a backlog of projects on file and a proposed new State method of prioritizing projects significantly decreases the possibility of receiving State funding in the future. We would not wish to present an optimistic picture of our district receiving State funding assistance when the changes are steadily diminishing.

Sincerely,

Norman R. Menzie
Assistant Superintendent
Staff Services

VW/NM:dp

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Fish and Wildlife Enhancement
Sacramento Field Office
2800 Cottage Way, Room E-1803
Sacramento, California 95825-1846

TAKE PRIDE IN AMERICA

In Reply Refer To:
PPN

August 16, 1991

EL DORADO COUNTY
RECEIVED
AUG 20 1991
COMMUNITY DEVELOPMENT DEPARTMENT

Mr. Steven Hust
El Dorado County - Community Development
360 Fair Lane
Placerville, CA 95667

Subject: Bass Lake Road Study Area Program Environmental Impact Report; R.C. and Associates; Carson Creek, El Dorado County, California

Dear Mr. Hust:

The U.S. Fish and Wildlife Service (Service) has reviewed the Program Environmental Impact Report (EIR) for the Bass Lake Road Study Area (Study Area) between El Dorado Hills and Cameron Park. The Study Area consists of 1,223 acres which includes 89 parcels of varying size. There are presently nine subdivision applications on file with the El Dorado County Planning Division which involve 638 acres. The purpose of the Program EIR is to evaluate the cumulative effect of subdividing the Bass Lake Road properties. The following comments are provided for your consideration in preparation of the Final Environmental Document.

The Study Area includes Carson Creek and consists of the following habitats: annual grassland, oak woodland/savannah, seeps and seasonal wetlands, riparian, and chaparral. Build out of projects in the Study Area will lead to the direct loss to fish and wildlife and their habitats. In addition, many habitats not directly lost would have lower habitat values due to human intrusion and habitat fragmentation. Wetland and riparian habitat provides important resting, feeding and nesting areas for many species of migratory birds and resident wildlife. Today only a fraction of California's historic wetland/riparian habitat remains. Because of the value of wetland habitats to fish and wildlife and the scarcity of such habitat types, the Service is concerned about any further loss. Every effort should be made to avoid and minimize impacts to wetlands. For unavoidable impacts, our mitigation goal for wetlands, including riparian habitats, is no net loss of in-kind habitat value or acreage (whichever is greater).

There are up to 15 acres of wetlands present in the Study Area. All of these could be lost or adversely impacted with development of the Bass Lake area. As mitigation, the EIR states that properties supporting wetland resources will be required to provide evidence of compliance with Department of Fish and Game policy and Section 404 of the Clean Water Act. The mere compliance with policies and acts does not constitute mitigation. Therefore, we cannot concur with the statements (page B-5 and F-16) that implementation of measure E01

will ensure that natural swales continue to exist, or that implementation of measure F03 will provide protection to the wetland habitat on the project site.

The Council of Environmental Quality regulations for implementing the National Environmental Policy Act define mitigation to include: 1) avoiding the impact; 2) minimizing the impact; 3) rectifying the impact; 4) reducing or eliminating the impact over time; and 5) compensating for impacts. The Service supports and adopts this definition of mitigation and considers the specific elements to represent the desireable sequence of steps in the mitigation planning process. Accordingly, we maintain that the best way to mitigate for adverse biological impacts is to avoid them whenever possible. Regarding permits issued by the U.S. Army Corps of Engineers under the authority of the Clean Water Act, the Service would object to the issuance of a permit for a project that does not follow the described mitigation "sequencing". We have included a copy of the Fish and Wildlife Service's Mitigation Policy for your assistance.

For unavoidable impacts, we recommend that the final EIR include a "program" mitigation plan to which all parcel owners must comply. The plan should include the following elements: mitigation ratio criteria to assure there is no net loss of acreage, functions or values, adequate buffers, success criteria (or performance standards), monitoring and contingency plans, identification of an entity that will manage the avoided and mitigation areas, and assurances of funds for the long term maintenance of the site(s).

Pages B-17 and F-20 suggest that the County provide protection of riparian habitat through establishment of a park or designated open space area. We recommend that protection of the riparian area be mandatory and part of the conditions of the final EIR. The area should be dedicated in perpetuity as a wetland/wildlife preserve. In addition, although the EIR states on Page F-8 that the on-site seeps are of unique value to wildlife, there is no mention of their protection anywhere in the document. We recommend the seeps also receive mandatory protection.

Page F-7 through 8 implies that intermittent drainages have little wildlife value because of the seasonal nature of water and forage, and that such drainages do not provide water and forage when most needed. We cannot concur such drainages are valuable because they also provide resting and nesting areas for wildlife. Many species of wildlife (specifically amphibians and other aquatic organisms) require seasonal water to complete their life cycles.

Page F-18 (E01) states that installation of closed storm drains (verses vegetated swales) is not proposed. We recommend that the final EIR be amended to state that drainage shall be conveyed in vegetated swales, closed storm drains shall not be installed and that all culverts (for road crossings only) shall be designed to allow the passage of aquatic organisms.

If you have any questions about this response, please contact Marilynn Friley at 916/978-4613. Thank you very much for your concern for wetland resources .

Sincerely,

Wayne S. White
Field Supervisor

1 Enclosure
Encl. 1 - U.S. FWS Mitigation Policy

cc: Reg. Dir., (AFWE), FWS, Portland, OR
Dir., CDFG, Sacramento, CA
Reg. Mgr., CDFG, Region II, Rancho Cordova, CA
Dist. Eng., Corps of Engineers, Sacramento, CA
EPA, San Francisco, CA
ECOS, Sacramento, CA
Placer County Conservation Committee, Roseville, CA

DEPARTMENT OF TRANSPORTATION

INTEROFFICE COMMUNICATION

Date: August 5, 1991

To: Steven Hust, Planning Division
Community Development Department

From: Craig McKibbin, Deputy Director of Engineering

Subject: Bass Lake Road Study Area Program Draft EIR

The Department of Transportation has reviewed the subject draft EIR and makes the following comments.

This Department reviewed the administrative draft EIR and submitted comments in correspondance dated April 4, 1991 and June 11, 1991 (attached). Upon review of this subject draft EIR, it is evident that none of our comments have been addressed, and the draft EIR content is identical to the administrative draft EIR.

The Department has recently received a request from the El Dorado Hill Development Company, to investigate relocating a portion of proposed Bass Lake Road alignment. Their request is stated in the attached letter addressed to Steven K. Payne of this Department, and dated July 1, 1991. The section of road discussed is immediatelty south of Bass Lake. The request is to move the proposed alignment approximately 500 feet to the west to avoid cutting into a hillside. The relocation alignment would be approximately 500 feet longer in length, but would substantially reduce the earthwork requirements. This Department recommends that the Bass Lake Road Study Area EIR address this proposed relocation of the Bass Lake Road realignment for its environmental significance. The attached letter provides more detailed information about the addition and reduction of impacts that would occur with this relocation.

The Department recommends that the Final EIR not be certified until our comments are adequately addressed.

BP
3 Attachments

cc: Larry [redacted]rod
Kris Payne
Tim McSorley
Joe Herrlie

July 1, 1991

Mr. Steven K. Payne
El Dorado County
Department of Transportation
2441 Headington Road
Placerville, CA 95667

RE: **BASS LAKE ROAD REALIGNMENT**

Dear Kris:

Pursuant to our recent conversation, El Dorado Hills Development Company requests that El Dorado County, Department of Transportation, investigate the possibility of revising the current proposed alignment. El Dorado Hills Development Company has reviewed the proposed alignment and found that it cuts through nearly the highest point of the hill within our Village J site resulting in vertical cuts at centerline of approximately 32 feet. These deep cuts would result in substantial tree removal and the slope bank would be 250 - 300 feet wide at the top of cut. We think that the massive cuts would produce scaring of the hillside and tree loss that is unacceptable. In addition, that portion of the roadway within the cut bank (700± feet) would make access to Village J almost impossible and would render a majority, if not all, of Village I virtually unusable.

El Dorado Hills Development Company has retained Gene Thorne & Associates to investigate possible alternatives to the proposed alignment. I have attached a preliminary schematic plan of a proposed alternative alignment that moves the road so that it does not bisect the top of the hill. This alignment should substantially reduce the earthwork, but it does lengthen the required roadway by approximately 500± feet.

It is my understanding that the improvement plans for the current proposed alignment have been prepared by Gene Thorne & Associates and have been paid for through road fee credits from DOT. As we have discussed, El Dorado Hills Development Company is prepared to have new improvement plans prepared for a new, more acceptable, alignment if El Dorado County would proceed to have the revised alignment adopted.

EL DORADO HILLS DEVELOPMENT COMPANY

Please let me know if additional information is required in order for DOT to proceed with evaluating the possibility of adopting a revised alignment that is more sensitive to topography and tree cover.

Very truly yours,

EL DORADO HILLS DEVELOPMENT COMPANY

Gerald S. Smith
Director of Development

GSS:smr
Enclosure
cc: Bill Parker
Bill Holliman
Gene Thorne
Randy Pesses

GSS-110

DEPARTMENT OF TRANSPORTATION

INTEROFFICE COMMUNICATION

Date: June 11, 1991

To: Steven Hust, Planning Division
Community Development Department

From: Scott Chadd, Director of Transportation

Subject: Administrative Draft - Bass Lake Road Study Area Program EIR

This Department of Transportation has reviewed the subject document and the supporting EIR Technical Appendices, containing the Omni-Means Traffic Analysis. Our initial comments were made in the Department's letter to Mr. Randy Chafin, dated April 4, 1991 (see Attachment A). Fourteen numbered comments were made, of which a number of these have been adequately addressed in this EIR. Those comments which still need clarification are numbers 2, 3, 10, 12, and 14.

Additional comments:

1. EIR, Page J-1 - Second paragraph correction: Stone Hill Road/Bass Lake Road intersection is approximately 0.8 mile north of Highway 50.

2. EIR, Page J-3 - First paragraph correction: Bass Lake Road is currently functioning at LOS B; Highway 50 - LOS D; Green Valley Road - LOS D. The 1,500 vph number for LOS C on Bass Lake Road and Green Valley Road is too high, even under ideal conditions.

3. EIR, Figure J3 needs to match Figure 5 in the Traffic Analysis, Appendix 2. The future intersection location of Bass Lake Road and Green Valley Road is shown correctly on Figure 5 in the Traffic Analysis, and incorrectly on Figure J3 in the EIR.

4. EIR, Figure J5 needs to match Figure 6 in the Traffic Analysis. Same comment as above.

5. EIR, Page J-21 - Mitigation J02 needs to clearly indicate that all improvements required for the Future w/out Project shall also be included as part of the "required transportation facilities".

6. Traffic Analysis, Page 11 - Same comments as in 2. above.

7. Traffic Analysis, Table 7 - Bass Lake Rd/US50 EB Ramps: The Cumulative w/out General Development Plan Area shows "three EB left turn lanes", while the Cumulative with 3 DU/AC Development Alternative shows "dual EB left turn lanes". Why?

8. Traffic Analysis, Table 7 - The limits of the 6 lanes needed for Bass Lake Road is stated from US50 to Village Green Parkway, and 4 lanes needed north from there to Green Valley Road. This needs to be stated in the EIR.

The EIR Summary Mitigation J01 states that even with the widening of Bass Lake Road to 6 lanes south of Village Green Parkway and 4 lanes north of Village Green-Parkway, this road will operate at LOS F for cumulative + project. This is also stated in the Traffic Analysis on pages 33 and 34. This level of service is not acceptable to this Department. It is recommended that either Bass Lake Road be widened beyond 6 lanes, or the land use intensities decreased to allow for an acceptable level of service. The Board of Supervisors has directed that the level of service standard for County roads is to be LOS C or better.

As was pointed out in comments 3. and 14. in the April 4, 1991 letter (Attachment A), the cost of the improvements need to be determined. Analysis of the funding needs to be discussed.

Attached are our comments regarding the Hydrology Section of the EIR (Attachment B).

If you have any questions, or need additional information, please call Bill Pearson, Associate Civil Engineer at (916) 621-5927.

BP
2 attachments

cc: Craig McKibbin
Richard Fuller, R.C. Fuller Associates
Martin Inouye, Omni-Means

County of El Dorado

DEPARTMENT OF TRANSPORTATION

2441 Headington Rd.
Placerville, CA 95667-5216
Phone (916)621-5900
FAX 626-0387 or 621-2030

SCOTT CHADD
Director of Transportation

April 4, 1991

Mr. Randy Chafin
Planning and Environmental Services
1125 Dartmouth Avenue
Roseville, CA 95678

RE: Administrative Draft EIR-Bass Lake Road Area

Dear Mr. Chafin:

The Department of Transportation (DOT) has reviewed the above document and the supporting Omni-Means Traffic Analysis and has the following comments. Most of our comments apply to both documents but several apply directly to only the Traffic Analysis.

1. It is important to note that the document is a program level EIR and not a project level environmental analysis. Therefore, the level of detail in the document is less than that which will be required in any future project specific documents. Overall the document is quite satisfactory.

2. The mitigation measures in the EIR must include all of the road improvements listed in the Traffic Analysis regardless of what entity will be responsible for their design and construction. All of these improvements must be in-place for the traffic system to function at an acceptable level.

3. The mitigation measures need to discuss the funding of all of the required traffic improvements. The discussion can be of a general nature but must discuss all of the improvements. The costs of widening the freeway and reconstruction of the Bass Lake interchange will be a major undertaking. Without these and the other listed improvements in place, the proposed development will have to be phased back or reduced.

4. The Summary of Mitigation Measures, page B-9, refers to a mitigation measure JO3, but no such mitigation measure is listed, nor does one show up in the body of the document. Is there a JO3 or is this an editing problem?

ATTACHMENT

5. Both documents discuss widening of Bass Lake Road to six lanes North of Highway 50. Neither document states the northerly limits of the widening. They need to address this.

6. In the discussions of "Existing Plus Project", there are several intersections that are shown to operate at Level of Service (LOS) D, E, or F, but not meeting warrants for signals. Mitigation measures for these intersections should be developed that will ensure that the LOS at the intersection does not exceed the County standard of "C".

7. It should be understood, and included in the text of the EIR, that the intersection geometrics described in the EIR are preliminary and only at program level detail. As projects come in in the future, the geometrics will be further analyzed and may change, possibly significantly.

8. Similarly, the sizing of internal streets will need to be analyzed as part of the review process of those projects. Several of the internal streets will be collecting traffic from other internal streets and can carry a significant amount of traffic to the major external roads. An example is Stone Hill Road shown as carrying 311 peak hour trips.

9. Page J-3 of the EIR states that north-bound traffic will be using Bass Lake Road and Cambridge Road to get to Green Valley Road. We do not believe that Cambridge will be carrying much, if any, of this project area's traffic to the North. That traffic will use Bass Lake Road. Cambridge may carry some traffic to eastbound Highway 50, but that should be minor and only affect between Country Club and Highway 50.

10. Related is how much traffic will use Castana Drive to get to Country Club and hence Cambridge Road. If the volumes using this "back-door" are significant, it could adversely impact the Cambridge/Knollwood area. This needs to be reviewed.

11. Three additional intersections need to be analyzed to adequately address all of the potential traffic impacts. These intersections are:

    a. New Bass Lake Road at Green Valley Road
    b. New Bass Lake Road at the Existing Bass Lake Road
    c. Bass Lake Road at Village Green Parkway.

    The attached map shows the location of these three intersections. Improvements may need to be made at these intersections to mitigate the traffic impacts.

12. We are concerned that the small internal roads that connect through to the external arterials may become bypasses for traffic that belongs on the major roads. This traffic through a residential neighborhood would be unacceptable. Because this is a Program Level EIR (not a Project Level document) it is not necessary to address this issue in detail but it should be noted in the text. City Lights Drive is an example.

13. We agree with Omni-Means that the "Cumulative base" that was used is probably lower than what it actually would be. However, we don't agree that the error is less than one percent. This comment does not affect the results of the study nor the EIR.

14. Additionally it is apparent that large magnitude capital improvements are anticipated in order to allow this development to occur. No analysis of this issue is made. Without additional capital programming and cash flow analysis, none of these developments can proceed.

Attached are our comments regarding the Drainage Section of the EIR.

If you have any questions, or need additional information, please call me at (916) 621-5914.

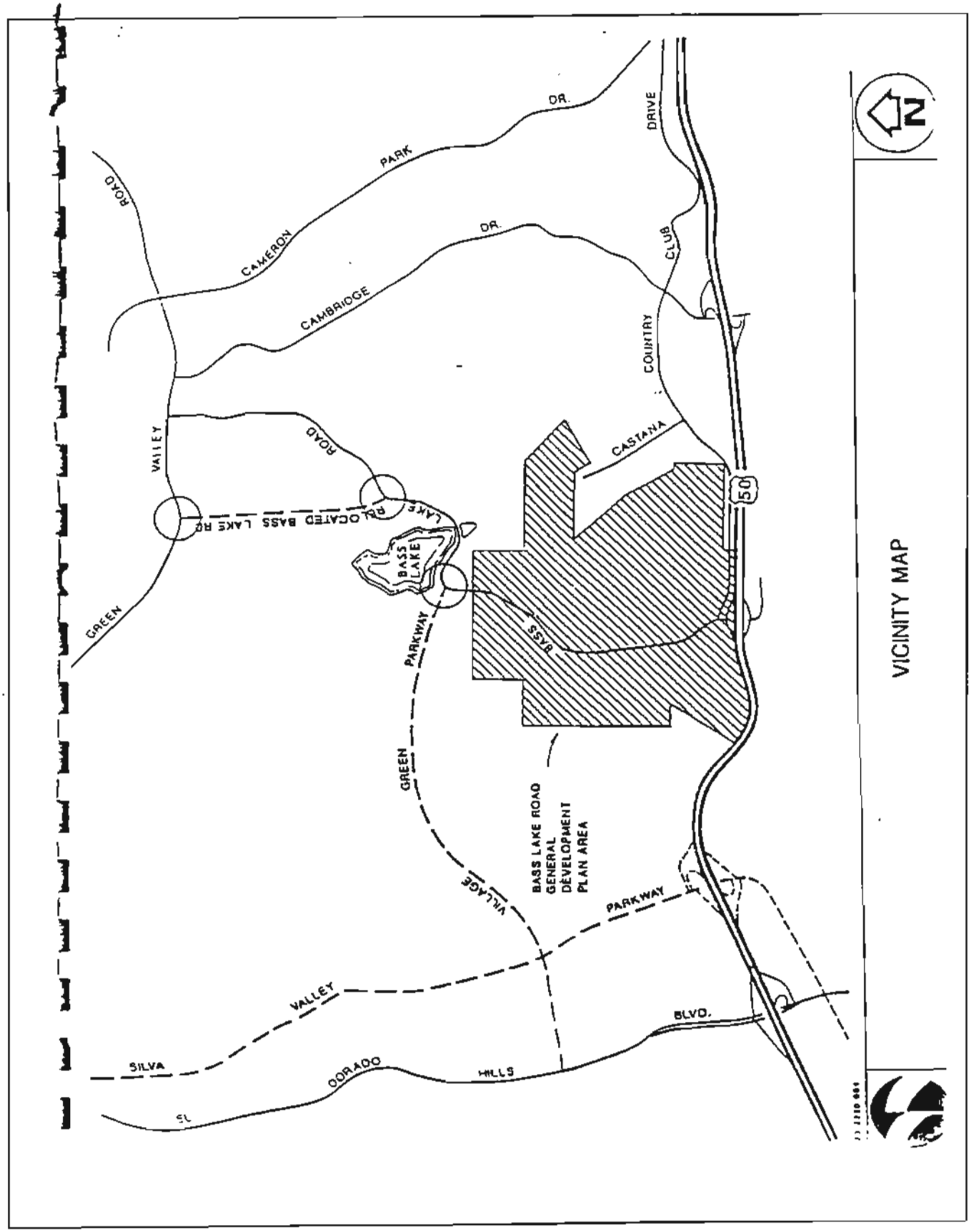
Sincerely,

Craig McKibbin
Deputy Director

CDM:plh

Attachment

cc: Steven Hust, EDC-Planning
Bill Pearson, Department of Transportation
John Bayless, The Chas Group Incorporated
Martin Inouye, Omni-Means
Phil Rowe, Rowe Construction
Richard Fuller, R.C. Fuller Associates


VICINITY MAP
N
DR.
PARK
CAMERON
ROAD
DR.
CAMBRIDGE
DRIVE
CLUB
COUNTRY
VALLEY
ROAD
CASTANA
50
RELOCATED BASS LAKE RD
LAKE
BASS
LAKE
GREEN
PARKWAY
BASS
GREEN
VILLAGE
BASS LAKE ROAD
GENERAL
DEVELOPMENT
PLAN AREA
PARKWAY
VALLEY
BLVD.
SILVA
ORADO
HILLS

DEPARTMENT OF TRANSPORTATION
INTEROFFICE MEMORANDUM

DATE: March 11, 1991

TO: Craig McKibbin, Deputy Director-Engineering

FROM: Douglas P. Boyle, Assistant in Civil Engineering

SUBJECT: Review of Bass Lake Road Study Area Program Environmental Impact Report

Some of the comments related to the review of the Hydrology and Drainage section of the subject Administrative Draft EIR are listed below.

1. This project involves the development of over six-hundred acres with nine subdivisions for a total of approximately fourteen units. The impacts of this development, from a hydrology and water quality standpoint, are very well addressed in this document.

2. The mitigation measure which addresses the increase in the volume of runoff from the proposed developments E02, states:

> **Each project will be required to submit engineering plans which provide design flow calculations and identify measures to mitigate increased runoff flows. Although developments within the Bass Lake study area may elect to mitigate impacts individually, it is recommended that an area-wide drainage system be designed which provides retention at strategic locations in the major drainages. Operation and maintenance of the system could be financed through establishment of an Area of Benefit.**

Developments should not be allowed to mitigate the impacts individually, but rather, adhere to conditions set by an area-wide drainage plan as recommended above. The operation and maintenance of the system should be financed through the establishment of an Area of Benefit set up by the developer. In addition, drainage and maintenance easements should be established with access points to make proper maintenance possible.

3. One of the mitigation measure which addresses the water quality concerns of the proposed development, E03, states:

> **Consistent with the methodology identified in CONTROLLING URBAN RUNOFF: A Practical Manual for Planning and Designing Urban BMPs, each project will submit a Best management Practices (BMP) Plan for which specifies the measures which will be implemented to protect water quality. These measures will be identified on Tentative Maps and adopted as Conditions of Approval. Although projects may individually elect to mitigate water quality impacts, it is recommended that major facilities, such as basins, be tied to an area-wide drainage system, and established at strategic locations in the major intermittent drainage corridors. Development of area-wide facilities would not eliminate the requirement that site specific measures be identified within individual projects.**

The individual developments should not be allowed to mitigate the water quality impacts of the major facilities, but rather, follow the recommendations stated above.

The County should look into developing, adopting and implementing a County-wide Best Management Practices policy to gear up for the EPA NPDES requirements which will be printed in October 1992.

DEPARTMENT OF TRANSPORTATION
INTEROFFICE MEMORANDUM

DATE: June 11, 1991

TO: Natalie Porter

FROM: Douglas Boyle

SUBJECT: Review of Bass Lake Road Study Area Program Environmental Impact Report - Drainage Issues

The Hydrology section of the EIR states that all of the project located in the Deer Creek watershed is located in subwatershed 40 of the Cameron Park watershed. A portion of the proposed Hollow Oak Subdivision is in subwatershed 35 of the Cameron Park watershed and is not mentioned. The increasing number of residents adversely effected by annual flooding problems in subwatershed 35 warrant a detailed study of the effects of additional runoff within the subwatershed. The capacity and existing condition of each of the following crossings should be included in the study: Knollwood Drive, Ravenwood Lane, Wentworth Road, Kimberly Road, Country Club Drive, Cambridge Road and U.S. 50.

The remainder of the project (+550 acres) is located in the Carson Creek and Marble Creek watersheds (+2000 acres). The hydrologic study was based on SCS and Army Corps formulas for catchment lag time. A more detailed watershed analysis should be required before the design of any detention or retention facilities begins.

ATTACHMENT

August 8, 1991

Mr. Larry Walrod, Planning Director
Attention: Mr. Peter Maurer
El Dorado County
360 Fair Lane
Placerville, California 95667

Dear Mr. Walrod:

On Tuesday, August 6 we received for the first time a copy of the draft Program Environmental Impact Report for the Bass Lake Road Study area, dated June 14, 1991 and prepared by R. C. Fuller Associates. The draft document is scheduled for hearing by the El Dorado County Planning Commission on August 8, 1991. We did not receive a copy of the Notice of Preparation or other notices of preparation of the document prior to this time, although our property is contiguous to the subject property on the West and North.

We have not had an opportunity to completely review the draft document and, consequently, are unprepared to specifically address the document at the public hearing. We wish to reserve the opportunity to subsequently submit written comments and, if necessary, to present oral testimony at any subsequent hearing before the Planning Commission or the Board of Supervisors.

We are concerned that the draft and Environmental Impact Report consider the Environmental Impact Report for El Dorado Hills Specific Plan, certified by the El Dorado County Board of Supervisors, on July 18, 1988 and that it consider the impacts of the Bass Lake Road Study Area projects on the Specific Plan area.

A Development Agreement and Public Improvements Financing Plan were adopted by the Board of Supervisors by Ordinance Number 3999 on January 3, 1989. The relationship between the proposed land uses and the Bass Lake Road Study Area and Specific Plan area should be addressed under the policies of the El Dorado Hills/Salmon Falls Area Plan. Road improvements within the Specific Plan area have been specifically defined as set forth in the Public Improvements Financing Plan and the Specific Plan. Traffic circulation, schools, water, and sewer

EL DORADO HILLS DEVELOPMENT COMPANY
[illegible]

treatment are several of the issues which might be affected by the provisions of the El Dorado Hills Specific Plan and which, in turn, might have an impact on the Specific Plan area.

We would appreciate receiving a copy of the draft environmental document and an opportunity to submit specific comments, if any, after we have had an opportunity to review the document.

Sincerely,

William G. Holliman, Jr.

WGH/mfh
080891

Distribution: Planning Commission
Department of Transportation
R. C. Fuller Associates

WILLIAM M. WRIGHT
ATTORNEY AT LAW

2828 Easy Street, Suite 1
Placerville, CA 95667

(916) 622-5085
FAX (916) 622-9614

July 24, 1991

Steve Hust
Principal Planner
County of El Dorado
360 Fair Lane
Placerville, CA 95667

RE: Bass Lake Road Study Area Program EIR

Dear Mr. Hust:

In regard to the above project, we offer the following comments on behalf of the El Dorado Union High School District and the Buckeye Union School District.

1. The project should be conditioned to comply with El Dorado County Board of Supervisors resolution no. 220-91.

2. The EIR notes that 2.26 elementary schools will be needed to accomodate the project. These sites should be specifically located in the project area. We prefer for the developers to coordinate on the location of the sites that will be necessary to accomodate this development. If they are unable to designate these sites, then the school district will undertake this task. However, it would be much easier if the developers coordinated on this topic and designated the initial sites for the two K-6 schools.

3. The statement on page K-18 stating that chances of funding through the 50-50 program are typically very good should be deleted. Even this funding mechanism does not look very promising at this time.

Also, there should be specific policy requirements setting forth the need for school bus stops and appropriate access to the designated school sites.

If you have any questions, please contact me.

Very truly yours,

WILLIAM M. WRIGHT

WMW/sa
cc: Joyce Flanigan
David Murphy

LOCAL AGENCY FORMATION COMMISSION

EL DORADO COUNTY

360 FAIR LANE
PLACERVILLE, CA 95667
(916) 621-5322

August 7, 1991

Steven Hust, Principal Planner
El Dorado County
360 Fair Lane
Placerville, CA 95667

SUBJECT: Draft Environmental Impact Report for Bass Lake Road Study Area, SCH No. 90020375

Dear Mr. Hust:

I have reviewed the draft environmental impact report for the Bass Lake Road Study Area and have the following comments. The Utilities section in the report states that El Dorado Irrigation District has insufficient water to serve the anticipated development in the study area. It also states that a number of the proposed developments in the area are outside of that district's boundary and will have to annex in order to become eligible for service. As a mitigation, the report states that LAFCO cannot approve an annexation unless EID issues a letter stating that sufficient water is available for a proposal and that the moratorium is lifted.

However, please be aware that on September 6, 1990, this LAFCO amended its Policies and Guidelines to describe the written documentation that annexing agencies shall submit to LAFCO regarding provision of service. In this case, EID shall provide written documentation stating its ability to provide adequate service to annexing property when it is anticipated that such services will be needed and that provision of such service will not provide a significant negative impact on the properties already receiving that service. Additionally, the letter will identify when the service is projected to be needed and the plan which the district has developed for expanding its service capacity to meet the needs of the annexing territory at that time.

As a result, I believe Mitigation Measure K01 on page K-5 does not reflect LAFCO requirements. It does not appear to reduce the significant impact of insufficient water for development since an "ability to serve" letter can be issued prior to immediate availability of a sufficient water supply and prior to lifting the moratorium.

Thank you for providing LAFCO with an opportunity to review the Draft EIR for the Bass Lake Road Study Area.

Sincerely,

Margaret E. Wilkenfeld

Margaret E. Wilkenfeld
Acting Executive Officer

Steve Lucas

8-22-91

TO El Dorado County, and R.C. Fuller Associates.

Subject ERROR IN THE BASS LAKE PROGRAM EIR

Sir,

After reviewing this EIR we conclude that there is an error on PAGE F2 which INCORRECTLY shows the pattern of trees in BLOCK 41, 55, 56, & 57. We conducted a tree inventory for this area in November 89 based on an aerial photograph and a field inspection, and the tree pattern on page F2 of the EIR, fails to show some trees, shows trees that do not exist, and incorrectly shows one cluster in this area when the trees are actually scattered in 15 different locations through out these four parcels.

We are concerned that some land use decisions will be influenced by an incorrectly reported tree pattern contained in this document.

Sincerely,

Thomas J. Yowell

3060 Stonehill Rd
Shingle Springs, Calif 95682
(916) 933 3287

designated F - HIGH DENSITY RESIDENTIAL by the General Plan would instead develop as G - MEDIUM DENSITY RESIDENTIAL with a maximum density of one unit per acre. Similarly, those properties designated G - MEDIUM DENSITY RESIDENTIAL by the General Plan are assumed to develop as H - LOW DENSITY RESIDENTIAL with a maximum density of 1 unit per five acres. Under these assumptions, a maximum of 1,885 units could be constructed in the study area.

SUBDIVIDING OF
RE: BASS LAKE STUDY AREA PROPERTIES 7/8/91

DEAR MR. HURST -

WE HAVE STUDIED THE PROJECT DESCRIPTION OF THE ABOVE.

WE ARE IN FAVOR OF THE NO PROJECT ALTERNATIVE.

IF THAT IS NOT POSSIBLE, WE WOULD BACK THE LOWER DENSITY ALTERNATIVE.

WE ARE TOTALLY OPPOSED TO HIGHER DENSITY. CAMERON PARK IS ALREADY BEING RUINED BY TOO MUCH MULTIPLE HOUSING, AND WE ARE AGAINST SEEING THIS HIGH DENSITY SPREAD CLOSER TO THE EL DORADO HILLS AREA.

THANK YOU.

MR. & MRS. LEROY W. NELSON
(OWNERS) 3911 HILLS COURT
EL DORADO HILLS, CA 95630

EL DORADO COUNTY
RECEIVED
JUL 09 1991
COMMUNITY DEVELOPMENT DEPARTMENT

August 29, 1991

Daryl Rasmussen, Chair
El Dorado County
Planning Commission
361 Fair Lane
Placerville, CA 95667

Re: The General Bass Lake Development Area
Environmental Impact Report

Dear Sir,

In addition to points discussed in the EDH/SF APAC letter dated August 7, 1991, there are a few items needing additional consideration listed below:

1. (See Figure J1, page J-4) In a recent technical review meeting for a project on the east side of North Bass Lake Road, the need for major collector(s) to enhance traffic flow between the various villages and Bass Lake Rd or Country Club Drive was emphasized.

This need combined with currently proposed 'backdoor' access between villages for emergency access purposes promise to create another circulation system with traffic from one village flowing through other villages rather than via a major collector to an arterial.

If after nearly two years and various versions of project maps, this need is still being expressed; it appears that county needs to take a firmer role in this matter. One or more major collectors need to be designated for the area so applicants can proceed with their maps.

Due to:

an expressed need for an improved internal circulation system in the General Bass Lake Development Area;

the goal to (hopefully) avoid the EIR traffic mitigation of a six lane Bass Lake Road;

the strong potential for intervillage circulation problems and non-use of the EDH Development Concept despite the 'precedents' set by the EDH Specific Plan and the NW EDH Specific Plan to utilize this concept in the area's community planning.

Attached is a major collector system proposal (Atch 1) which incorporates the DOT proposed Bass Lake Rd alignment alteration previously discussed in the General Bass Lake & Hollow Oak EIR hearings. Drawn to follow contours (in majority), the proposed road location would provide areas for a 50+ lot village, assure adequate access to each area while providing narrower, limited access alternative roads to eliminate the need of a six-lane Bass Lake Road.

2. First paragraph on page B-18 continues a discussion of a 'Planning Consideration' about microwave towers. It seems like a more precise definition is needed of 'how far' residences should be located from "sources" than "maximum separation".

3. On page C-7, Table C1, the land use designation of APN 108-130-30 needs reconfirming. According to Figure 11 on page I-3 this parcel has a Medium Density designation.

4. Figure F1, page F-2, I question the designation of the Bell property (eastern end of Hollow Oak Village) as Chaparral rather than Oak Woodland. From what I understand it is primarily oak forest with chaparrel on the eastern edge. A discussion of the chaparrel and oak forest on the Bell property is in the Hollow Oak (Village) Draft EIR, pages N-2 and N-3.

5. Figure F2, page F-4, the illustration needs correction. Please consult the Gene Thorne & Associates Proposed Bass Lake Road Realignment, scale: 1" to 400', an aerial view of the area, to reconfirm tree locations and size of each area covered by trees.

6. Figure H3, page H-7, needs to include the proposed alternate routes for Bass Lake Road north of parcel 21.

7. Fire Protection, Paragraph 3, page K-13. The statement "The second station, located at 2180 Francisco Drive in Lake Forest, is currently staffed by volunteers." is no longer correct. As of July 1, 1991, permanent staff members were assigned at this station.

8. Page N-2, the list of 2 prehistoric and 5 historic sites. Having apparently missed the map indicating location of these sites, I do not know if the prehistoric site in the Bell property oak forest in the east end of Hollow Oak Village is included in this list. If not it should be included. It includes two bedrock milling stations with a probable midden area in between the two stations. See paragraph PA-89-37, page P-3, in the Hollow Oak (Village) draft EIR.

9. Financing Bass Lake Road improvements.

I understand that the General Bass Lake Development Area is in the Bass Lake Road Study Area and Assessment District. Therefore fees paid should be applied to Bass Lake Road improvements.

There appears to be a lack of information in this and the General Bass Lake Development Area EIR on the Bass Lake Road Assessment District.

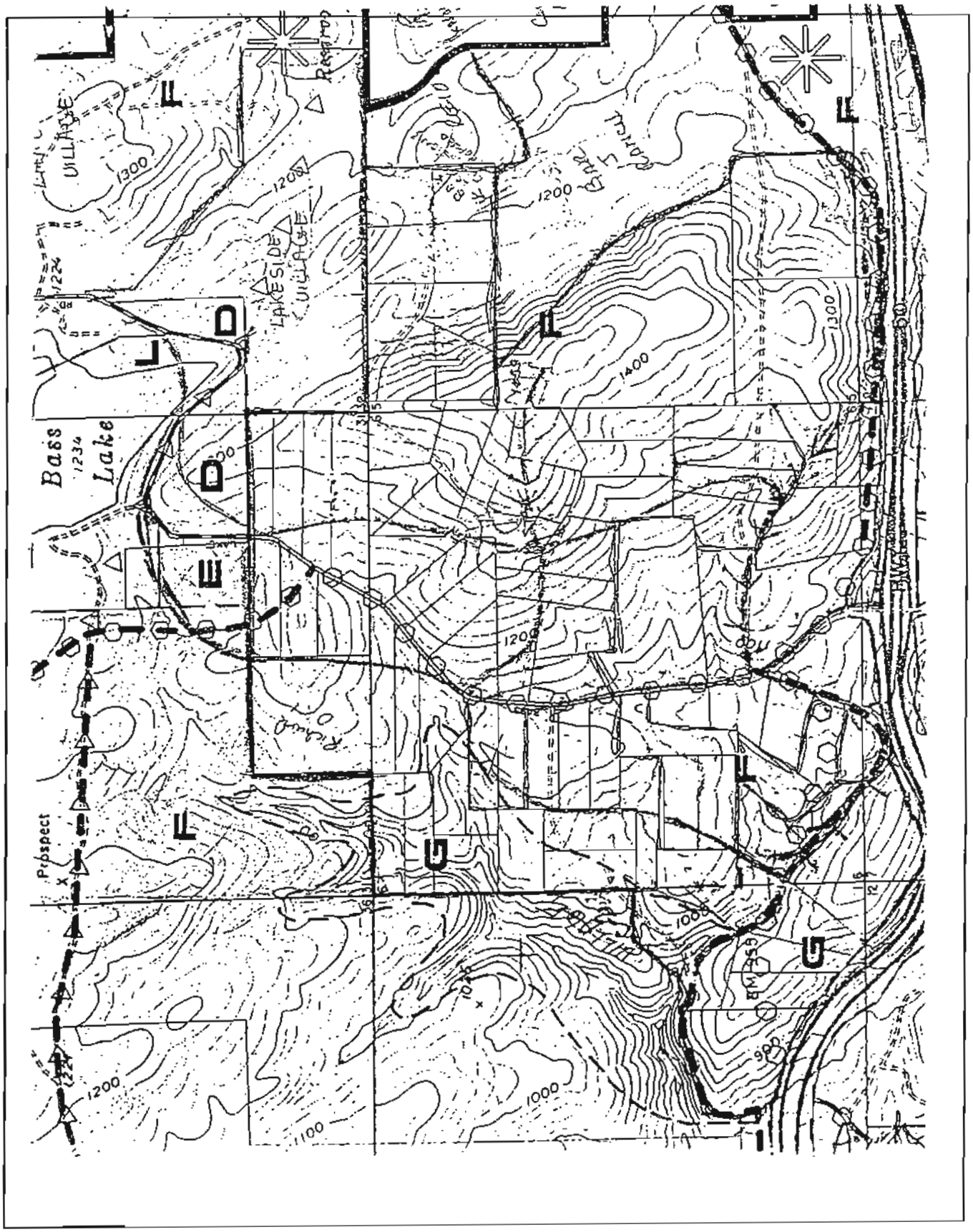
I presume the Bass Lake Road improvements listed in the Traffic section are included in the Bass Lake Road Traffic Study. Are they?

Thank you for your time and consideration.

Sincerely,

Harriett B. Segel

Harriett B. Segel
2067 Wood Mar Dr
El Dorado Hills,
CA 95630-3718


Bass Lake
LAKESIDE VILLAGE
Prospect
1300
1200
1400
1100
1000
900

STATE OF CALIFORNIA PETE WILSON, *Governor*

GOVERNOR'S OFFICE OF PLANNING AND RESEARCH
1400 TENTH STREET
SACRAMENTO, CA 95814

EL DORADO COUNTY
RECEIVED
SEP 03 1991
COMMUNITY DEVELOPMENT
DEPARTMENT

Aug 29, 1991

STEVEN HUST
EL DORADO COUNTY
360 FAIR LANE
PLACERVILLE, CA

Subject: BASS LAKE PROPERTIES PROGRAM EIR
SCH # 90020375

Dear STEVEN HUST:

The State Clearinghouse has submitted the above named draft Environmental Impact Report (EIR) to selected state agencies for review. The review period is now closed and the comments from the responding agency(ies) is(are) enclosed. On the enclosed Notice of Completion form you will note that the Clearinghouse has checked the agencies that have commented. Please review the Notice of Completion to ensure that your comment package is complete. If the comment package is not in order, please notify the State Clearinghouse immediately. Remember to refer to the project's eight-digit State Clearinghouse number so that we may respond promptly.

Please note that Section 21104 of the California Public Resources Code required that:

> "a responsible agency or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency."

Commenting agencies are also required by this section to support their comments with specific documentation. These comments are forwarded for your use in preparing your final EIR. Should you need more information or clarification, we recommend that you contact the commenting agency(ies).

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact Russell Colliau at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

David C. Nunenkamp
Deputy Director, Permit Assistance

Enclosures

cc: Resources Agency

Notice of Completion

Appendix F

See NOTE below

SCH # 90020375

Mail to: State Clearinghouse, 1400 Tenth Street, Sacramento, CA 95814 916/445-0613

Project Title: Bass Lake Road Study Area Program EIR

Lead Agency: El Dorado County, Community Development — **Contact Person:** Steven Hust, Principal Planner

Street Address: 360 Fair Lane — **Phone:** (916) 621-5355

City: Placerville, CA — **Zip:** 95667 — **County:** El Dorado County

Project Location

County: El Dorado County — **City/Nearest Community:** El Dorado Hills/Cameron Park

Cross Streets: North at Hwy 50 along Bass Lake Road — **Total Acres:** 1223.1

Assessor's Parcel No.: attached — **Section:** 5,6,7 & 8 — **Twp.:** 9N — **Range:** 9E — **Base:** Clarksv...

Within 2 Miles: **State Hwy #:** 50 — **Waterways:** Bass Lake and Carson Creek

Airports: Cameron Park — **Railways:** S.P.R.R. — **Schools:** Buckeye/El Dorado

Document Type

CEQA: ☐ NOP ☐ Supplement/Subsequent ☐ Early Cons ☐ EIR (Prior SCH No.) ☐ Neg Dec ☐ Other ☒ Draft EIR

NEPA: ☐ NOI ☐ EA ☐ Draft EIS ☐ FONSI

Other: ☐ Joint Document ☐ Final Document ☐ Other

Local Action Type

☐ General Plan Update ☐ General Plan Amendment ☐ General Plan Element ☐ Community Plan

☐ Specific Plan ☐ Master Plan ☐ Planned Unit Development ☐ Site Plan

☐ Rezone ☐ Prezone ☐ Use Permit ☒ Land Division (Subdivision, Parcel Map, Tract Map, etc.)

☐ Annexation ☐ Redevelopment ☐ Coastal Permit ☐

Development Type

☒ Residential: Units 2901 Acres 1223.1

☐ Office: Sq.ft. ____ Acres ____ Employees ____

☐ Commercial: Sq.ft. ____ Acres ____ Employees ____

☐ Industrial: Sq.ft. ____ Acres ____ Employees ____

☐ Educational ____

☐ Recreational ____

☐ Water Facilities: Type ____ MGD ____

☐ Transportation: Type ____

☐ Mining: Mineral ____

☐ Power: Type ____ Watts ____

☐ Waste Treatment: Type ____

☐ Hazardous Waste: Type ____

☐ Other: ____

RECEIVED JUN 25 1991 CLEARINGHOUSE STATE OF CALIFORNIA

Project Issues Discussed in Document

☒ Aesthetic/Visual	☐ Flood Plain/Flooding	☒ Schools/Universities	☒ Water Quality
☐ Agricultural Land	☐ Forest Land/Fire Hazard	☐ Septic Systems	☒ Water Supply/Groundwater
☒ Air Quality	☒ Geologic/Seismic	☒ Sewer Capacity	☐ Wetland/Riparian
☒ Archeological/Historical	☐ Minerals	☒ Soil Erosion/Compaction/Grading	☒ Wildlife
☐ Coas[illegible] Zone	☒ Noise	☐ Solid Waste	☐ Growth Inducing
☒ Dr[illegible] /Absorption	☒ Population/Housing Balance	☐ Toxic/Hazardous	☒ Landuse
☐ E[illegible]nic/Jobs	☒ Public Services/Facilities	☒ Traffic/Circulation	☒ Cumulative Effects
☒ F[illegible]al	☒ Recreation/Parks	☒ Vegetation	☐ Other ____

Present Land Use/Zoning/General Plan Use

ATTACHED

CLEARINGHOUSE CONTACT: Russ Colliau (916) 445-0613

STATE REVIEW BEGAN: 7-15-91

DEPT REV TO AGENCY: 8-22

AGENCY REV TO SCH: 8-27

SCH COMPLIANCE: 8-29

PLEASE RETURN NOC WITH ALL COMMENTS

AQMD/APCD: 6 (Resources: 7/30)

El Dorado

CHT SNT Resources

CHT SNT 13

SWRCB: --Grants

State Lands Comm

"S" = sent by lead / "o" = sent by SCH

October 17, 1991

Supervisor Bob Dorr
County Board of Supervisors
360 Fair Lane
Placerville, CA 95667

Dear Supervisor Dorr:

I hope the bald eagles return to Bass Lake this winter. For some years now, bald eagles have used Bass Lake as a resting and feeding area each winter. My family eagerly awaits the "first sighting" of an eagle at the lake and then takes time to often go and sit to watch them.

The bald eagles we see at Bass Lake each year could be migratory birds that are stopping to rest and feed, or they could be resident birds coming down from the mountains to spend part of the winter at the lake feeding in the warmer climate. Whatever their origin, I'm concerned that the development planned and in progress around Bass Lake will result in the loss of the lake as winter habitat for bald eagles. The bald eagle is both federal and state listed as an endangered species in California.

While the loss of this small lake as winter habitat for bald eagles may be considered individually insignificant by some, I believe the loss of any bald eagle habitat in California is cumulatively significant and unacceptable. I'm not aware of how past Environmental Impact Reports for projects around Bass Lake addressed this potentially significant impact on bald eagles, but I request that all future EIRs be required to address this issue.

Possible mitigation for potential impacts from developments around the lake could include requiring project proponents to fund a study by the California Department of Fish and Game to determine the importance of Bass Lake to bald eagles and whether the eagles are migratory or resident birds. Perhaps a specified undeveloped buffer zone around the lake would be appropriate. I'm sure CDF&G would have some recommendations if they are consulted.

Although I'm alarmed by the large amount of relatively high-density growth planned for the El Dorado Hills - Cameron Park - Rescue area, I hope you and the other county supervisors will ensure that our areas of unique and critical habitat are protected and preserved for future generations.

Sincerely,

Sharon Johnson

Sharon Johnson
2703 Melodye Lane
Rescue, CA 95672

cc: Peter Bontadelli, Director
California Department of Fish and Game
1416 Ninth St.
Sacramento, CA 95814

Advance Planning Group
El Dorado County 2010 General Plan
360 Fair Lane
Placerville, CA 95667

APPENDIX B:

SUPPORTING DOCUMENTATION

omni·means
ENGINEERS PLANNERS

September 27, 1991

Bob Languell
R.C. Fuller Associates
5908 Fair Oaks Blvd
Carmichael, CA 95608

Dear Bob,

Enclosed are our responses to the Bass Lake Road Draft EIR comments you sent. We have tried to answer all those comments which you indicated we could help you on. If you have any further questions please do not hesitate to contact us.

Sincerely

OMNI-MEANS, Ltd.
Engineers & Planners

Martin R. Inouye
Senior Vice President

cc John Bayless

SACRAMENTO
2240 Douglas Boulevard Ste 260
Roseville, CA 95661
(916) 782 8688 / 969 8686
FAX (916) 782 [illegible]

WALNUT CREEK
2500 Camino Diablo Ste 220
Walnut Creek, CA 94596
(415) 935 [illegible]
FAX [illegible]

LAS VEGAS
3760 West Sahara Ave Ste [illegible]
Las Vegas Nevada [illegible]
(702) 365 [illegible]
FAX [illegible]

STOCKTON
83 West March Lane Ste [illegible]
Stockton CA [illegible]
[illegible]

RESPONSE TO COMMENTS ON BASS LAKE ROAD AREA DRAFT EIR

CALTRANS Comments

1. The Draft EIR has not indicated how improvements are to be funded.

Response:

Cumulative development throughout the study area as well as buildout of the Bass Lake Development Plan Area will generate the need for substantial roadway improvements. Roadway improvements adjacent to and within the Bass Lake Plan Area will be required to support development of the area as well as regional roadway and Highway improvements serving the entire vicinity. Developments within the Bass Lake Plan Area will need to pay their proportionate share to area-wide improvements. A variety of funding mechanisms will be required to fully finance roadway improvements benefitting both local and regional circulation.

The Bass Lake Plan Area will require participation in specific funding mechanisms as they are developed and become available. This includes participation in the Bass Lake-Salmon Falls Area fee program as well as possible related funding such as Mello-Roos financing. In addition, financing from State and County-wide sources will be required to support cumulative development of the area. This includes potential sales tax revenue funding as well as State Transportation Improvement Program (STIP) funding in the case of Highway 50 and the Highway 50/Bass Lake Road interchange.

Based on previously published figures in the Executive Report to the El Dorado County Board of Supervisors to Establish a Traffic Impact Mitigation Fee and OMNI-MEANS' estimates, overall cost of the improvements listed in the Traffic Analysis will be approximately $23,752,400. This does not include improvements to Green Valley Road or State Route 50. Of the total, $13,370,000 is estimated as the cost of reconstructing the State Route 50/Bass Lake Road interchange. This figure is to be collected from developers according to the Executive Report. Of the remaining $10,382,400, the Bass Lake-Salmon Falls Area fee program includes $5,610,000 to relocate and widen Bass Lake Road to four lanes. The remaining $1,464,400 is for signalization and/or geometric improvements to the various intersections. Table 1, below shows the cost estimates in more detail. These are only planning level estimates.

Table 1
Improvement Costs Estimates

Location	Cost
Intersection Improvements:	
Bass Lake Rd/Green Valley Road	$ 240,000
Bass Lake Rd/Hollow Oak Road	330,000
Bass Lake Rd/Stone Hill Road	330,000
Bass Lake Rd/Country Club Road	365,000
Bass Lake Rd/Hwy 50 WB Ramps	94,000
Bass Lake Rd/Hwy 50 EB Ramps	70,000
Country Club Rd/Bell Ranch Road	35,000
Roadway Widening:	
Bass Lake Rd	
from Green Valley to Village Green	4,413,000
from Village Green to Hwy 50	4,505,000
Interchange Reconstruction	
Bass Lake Road/State Route 50	13,370,000
TOTAL	$ 23,752,000

2. Improvements to State Route 50/Bass Lake Road interchange should be designed to CALTRANS standards. The westbound 2-lane on ramp will require a 1000-foot acceleration lane and the eastbound 2-lane off ramp will require a 1300-foot auxiliary lane as shown in Figure 504.88 of the Highway Design Manual. The feasibility of an L-9 configuration for the interchange should be investigated specifically with regard to maximum ramp grades and structure horizontal and vertical clearances.

Response:

Comments noted.

3. Traffic counts were taken on a holiday/vacation week. No AM turn movements were taken, nor were counts taken by TJKM or OMNI-MEANS when school was in session. AM counts would be needed to determine needs for ramp metering, intersection improvements and interchange geometrics.

Response:

The majority of traffic counts were taken on January 16 and August 14, 1990. Only one intersection, Bass Lake Road/Country Club Drive, was counted on January 2, 1991. The PM peak hour of traffic did not coincide with normal school hours at any intersection. This document is a program level EIR, so the level of detail is less than for a project specific document. Hence AM peak hour analysis was not done.

4. Seismic retrofit costs should be included in bridge widening costs.

Response:

It is assumed that these costs are included in the costs programmed in the Traffic Impact Mitigation Fee report.

5. CALTRANS recommends that Country Club Drive intersection be relocated as soon as possible. Consideration should be given to signalization of the ramp intersections at Bass Lake Road/Highway 50.

Response:

Comments noted. Ramp intersections do not currently meet peak hour signal warrants but have large, unbalanced volumes during peak hour. When warranted, signalization would improve safety and operations.

El Dorado County Department of Transportation Comments Letter of June 11, 1991

2. Bass Lake is currently functioning at LOS "B"; Highway 50 at LOS "D" and Green

Valley Road at LOS "D". The 1500 VPH number for LOS "C" on Bass Lake Road and Green Valley Road is too high, even under ideal conditions.

Response:

The Levels-of-Service were calculated based upon daily trips on urban arterials, as shown in Table 3 of the traffic analysis. The current LOS figures used in the comment appear to be based on rural highway capacities. Rural highway level-of-service is based on ability to pass on the two lane roadway. Because motorists expect to have better conditions in rural areas LOS threshold values are lower. Nevertheless, The 1500 vph figure is relatively high. A more appropriate capacity would be 1000 vph for LOS "C".

6. Same comment as #2.

Response:

Same response.

7. Traffic Analysis, Table 7- Bass Lake Road/US 50 EB ramps. .The cumulative w/o General Development Plan Area shows "three EB left turn lanes", while the Cumulative with 3 DU/AC Development Alternative shows "dual left turn lanes". Why?

Response:

The cumulative w/o General Development Plan Area improvements were taken verbatim from the Hollow Oaks Subdivision Draft EIR. The cumulative with 3 DU/AC Development Alternative improvements were calculated by OMNI-MEANS. This configuration is sufficient to handle the traffic if the left turn lanes have exclusive channelization to the northbound receiving lanes.

8. Traffic Analysis Table 7 - The limits of the 6 lanes needed for Bass Lake Road is stated from US 50 to Village Green Parkway and 4 lanes needed north from there to Green Valley Road. This needs to be stated in the EIR.

Response:

Comment noted.

9. The EIR Summary Mitigation J10 states that even with the widening of Bass Lake Road to six lanes south of Village Green Parkway and four lanes north of Village Green Parkway, this road will operate at LOS F for cumulative plus project. This is also stated in the Traffic analysis on pages 33 and 34. This level-of-service is not acceptable to this Department. It is recommended that either Bass Lake Road be widened beyond 6 lanes or the land use intensities decreased to allow for an acceptable level of service. The Board of Supervisors has directed that the level of service standard for County roads is to be LOS C or better.

Response:

Eight lanes would be required to mitigate the level of service on Bass Lake Road. Various alternatives to widening Bass Lake Road should be considered. One alternative to this would be to limit access to Bass Lake Road, thus creating an expressway with higher capacity. Another alternative would be to implement measure to reduce total trips. Total trips on Bass Lake Road would need to be reduced approximately 20,000 which would require trip reduction measures affecting an area beyond the Bass Lake Road Area. A third alternative is construction of a parallel facility with access to Green Valley Road.

El Dorado County Department of Transportation Comments Letter of April 4, 1991

3. The mitigation measures need to discuss the funding of all the required traffic improvements. The discussion can be of a general nature but must discuss all of the improvements.

Response:

See CALTRANS comment 1.

6. In the discussions of "Existing plus Project" there are several intersections that are shown to operate at Level of Service (LOS) D, E or F but are not meeting warrants for signals. Mitigation measure for these intersections should be developed that will ensure that the LOS at the intersection does not exceed the County standard of "C".

Response:

For unsignalized intersections, reserve capacity criteria is used for level of service analysis. Levels of service at the unsignalized intersections which are controlled by side street stop signs are indicative of the magnitude of the delay incurred by motorists turning at the intersection. Because these calculations ignore the condition of through traffic flow (which is assumed to proceed freely), a supplemental traffic signal warrant analysis is performed. Thus, while the unsignalized level of service may indicate very long delays for a particular turning movement (i.e., LOS "E" or "F") traffic conditions are generally not assumed to be unacceptable unless signal warrants are satisfied. The signal warrant criteria employed for this study are the peak hour warrants presented in the Manual of Uniform Traffic Control Devices (MUTCD) published by the Federal Highway Commission. The Caltrans "Traffic Manual" utilizes the peak hour warrants presented in the MUTCD as one method for determining the appropriateness of signalizing intersections.

9. Page J-3 of the EIR states that northbound traffic will be using Bass Lake Road and Cambridge Road to get to Green Valley Road. We do not believe that Cambridge will be carrying much, if any, of this project area's traffic to the north. That traffic will use Bass

Lake Road. Cambridge may carry some traffic to eastbound Highway 50, but that should be minor and will only affect between Country Club and Highway 50.

10. Related is how much traffic will use Castana Drive to get to Country Club Road. If the volumes using this "back-door" are significant, it could adversely impact the Cambridge/Knollwood area. This needs to be reviewed.

Response to 9 and 10:

The assumed project trip distribution was that 10% would travel north on Cambridge Road and 5% south on Cambridge Road. 10% total trips will utilize Castana Drive to access Cambridge Road and 5% will use Country Club west of Castana Drive.

Civil Engineering & Land Surveying
3233 Monier Circle, Suite 1
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(916) 638-0919 / FAX 638-2479

COOPER, THORNE & ASSOCIATES, INC.

September 30, 1991
File: 91-120

Bob Languell
R. C. Fuller
5908 Fair Oaks Blvd.
Carmichael CA 95608

BASS LAKE ROAD STUDY AREA PROGRAM - ENVIRONMENTAL IMPACT REPORT
DRAINAGE ISSUES CAMERON PARK SUBWATERSHED Nº 35

Dear Bob:

The following information is in response to the concerns of the Department of Transportation regarding subwatershed Nº 35 in Cameron Park.

In the memo dated June 11, 1991, from Doug Boyle to Natalie Porter, concerns were raised about the following crossings, i.e. Knollwood Drive, Ravenwood Lane, Wentworth Road, Kimberly Road, Country Club Drive, Cambridge Road and U.S. 50. The Cambridge Road and U.S. 50 crossings were addressed in the Bass Lake Study Area Program DEIR. The remaining crossings have been field checked for size and condition, then analyzed for maximum capacity using future projected storm flows.

Knollwood Drive, due to heavy vegetation and standing water, was visually identified and sized as twin 27" x 60" corrugated culverts, with a possible headwater depth of 7'. The maximum capacity of this crossing is 210 CFS, if headwater is fully developed. The developed discharge has been determined to be 158 CFS. The crossing at Ravenwood Lane was designed to carry a small amount of flow. The location of Ravenwood Lane splits the drainage channel into two separate flows. The larger flow continues down through the naturally defined channel while a splinter flow is routed into a roadside ditch and crosses Ravenwood Lane with a 24" corrugated culvert. Due to the unknown quantity of flow diverted from the main drainage channel into the roadside ditch we were unable to verify if the cross culvert could handle the 100 year design flow.

The crossing at Wentworth way consists of twin 54" corrugated culverts with a maximum possible headwater depth of 7.33 ft. The actual 100 year design flow of 381 CFS exceeds the culverts capacity of 315 CFS. Kimberly Road's crossing was calculated to have sufficient size (60") and capacity (400 CFS) to handle the 400 CFS generated by the 100 year storm. Again, to obtain a 400 CFS discharge requires a fully developed headwater. Country Club Drive was the final crossing analyzed in this study and consists of twin 4' x 6' box culverts. Crossing capacity is 108 CFS with a potential headwater depth of 5'. This maximum capacity is well under the actual 100 year design flow of 470 CFS.

David E. Cooper, P.E. *Everett E. Thorne, L.S.* *David R. Crosariol, P.E.* *Ed D. Brown, L.S.*

The calculated culvert capacities assume the maximum headwater depth will be contained just below the point of roadway overflow. The channels are in poor condition and need to be cleaned out to increase their carrying capacity. The total shed area is 745 acres. The Bass Lake Road Study Area contributes 20 acres, which represents 2.6% of the total contributing area. While the Bass Lake Area does impact the water shed its percentage is very low when taken in context with the entire shed area.

The study area could adequately mitigate its impacts by providing detention.

Sincerely,

COOPER, THORNE & ASSOCIATES, INC.

David R. Crosariol, P.E.
Vice President

Enclosure

DRC.364:vt

CULVERT CAPACITY

KNOLLWOOD DRIVE

*** Improved Channel Analysis ***

Upstream (headworks) Elevation = 100.000(Ft.)
Downstream (outlet) Elevation = 98.750(Ft.)
Runoff/Flow Distance = 50.000(Ft.)

++

*** CALCULATED OUTFLOW DATA AT INLET DEPTH = 7.00(Ft.) ***

Channel Type: PRESSURE/NON-PRESSURE PIPE
Height of channel inlet = 100.000(Ft.)
Water surface elevation at inlet = 107.000(Ft.)
Height of channel outlet = 98.750(Ft.)
Water surface elevation at outlet = 101.000(Ft.)
Difference in depth at inlet = 6.00(Ft.)
Pipe length = 50.00(Ft.)
Manning's N = 0.024 No. of pipes = 2
Elliptical pipe dimensions: Ratio A/B = 2.222
Height B = 27.00(In.) Width A = 60.00(In.)

Following is data if FLOW RATE of 210.027(CFS) is
used so the total head loss = difference in head:
The total friction loss through the pipe is 6.000(Ft.)
Pipe friction loss = 2.710(Ft.)
Minor friction loss = 3.290(Ft.) K-factor = 1.50
Note: Pressure flow at pipe inlet
Calculated flow rate through pipe(s) = 210.027(CFS)
Pipe flow velocity = 11.89(Ft/s)

TOTAL OUTFLOW at this depth = 210.03(CFS)

DEVELOPED RUNOFF

KNOLLWOOD DRIVE

Rational Hydrology Study Date: 9/25/91

********* Hydrology Study Control Information **********

Rational hydrology study storm event year is 100.0
Number of [time,intensity] data pairs = 6

No.	Time	-	Intensity
1	5.000		3.743
2	10.000		2.678
3	15.000		2.202
4	30.000		1.575
5	60.000		1.127
6	120.000		0.806

Soil antecedent moisture condition (AMC) = 3
For SCS soil loss calculations, 24 hour rainfall = 6.000(In.)
English Units used:
Area = acres, Distance = feet, Flow q = ft^3/s, Pipe diam. = inches
Runoff coefficient method used:
Runoff coefficient 'c' value calculated for the
equation Q=KCIA (K=unit constant, I=rainfall intensity, A=area;
by the following method:
Development and soil type where
c = 0.9*(ai + (i-Fp)*ap/i), for i > Fp
or c = 0.9*ai, for i <= Fp
where ap = pervious area fraction; ai = 1. - ap
Fp = 1. - y; Fm = ap*Fp
y = (p24 - .2s)^2 / ((p24 + .8s)*p24)
where s = 1000/cn - 10; p24 = 24 hour rain;
and cn = soil conservation service soil curve
number - scs cn

Rational Hydrology Method used:

The rational hydrology method is used where the area
of each subarea in a stream, subarea 'c' value, and rain-
fall intensity for each subarea is used to determine the
subarea flow rate Q, of which values are summed for total q

Stream flow confluence option used:

Stream flow confluence method of 2 - 5 streams:
Note: in all cases, if the time of concentration
or TC of all streams are identical, then q = sum of stream flows
Variables p=peak; i=intensity; Fm=loss rate; a=area; 1...n flows
q = flow rate, t = time in minutes
Stream flows summed; qp = q1 + q2 + ... qn
TC = t of stream with largest q

++

Process from Point/Station 1.000 to Point/Station 2.000
**** INITIAL AREA EVALUATION ****

RESIDENTIAL(3 - 4 du/ac; 8 - 9 du/ha)
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 1.000
SCS curve number for soil(AMC 2) = 75.00

```
Adjusted SCS curve number for AMC 3 = 91.00
Pervious ratio(Ap) = 0.6000     Max loss rate(Fm)=     0.104(In/Hr)
Initial subarea data:
Equations shown use english units, converted if necessary to (SI)
Initial area flow distance =  4725.000(Ft.)
Top (of initial area) elevation =  1240.000(Ft.)
Bottom (of initial area) elevation =  1170.000(Ft.)
Difference in elevation =    70.000(Ft.)
Slope =    0.01481  s(%)=       1.48
TC = 1.8*(1. -c(0.000))*d^.5 / s(%)^.333)
Initial area time of concentration =  119.390 min.
Rainfall intensity =      0.809(In/Hr) for a   100.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.784


Subarea runoff =    158.622(CFS)


Total initial stream area =      250.000(Ac.)


Pervious area fraction = 0.600
Initial area Fm value =    0.104(In/Hr)
End of computations, total study area =          250.00 (Ac.)
The following figures may
be used for a unit hydrograph study of the same area.
Note: These figures do not consider reduced effective area
effects caused by confluences in the rational equation.

Area averaged pervious area fraction(Ap) = 0.600
Area averaged SCS curve number =  75.0
```

CULVERT CAPACITY

WENTWORTH WAY

*** Improved Channel Analysis ***

Upstream (headworks) Elevation = 100.000(Ft.)
Downstream (outlet) Elevation = 99.000(Ft.)
Runoff/Flow Distance = 50.000(Ft.)

++

*** CALCULATED OUTFLOW DATA AT INLET DEPTH = 7.33(Ft.) ***

Channel Type: PRESSURE/NON-PRESSURE PIPE
Height of channel inlet = 100.000(Ft.)
Water surface elevation at inlet = 107.333(Ft.)
Height of channel outlet = 99.000(Ft.)
Water surface elevation at outlet = 103.333(Ft.)
Difference in depth at inlet = 4.00(Ft.)
Pipe length = 50.00(Ft.)
Manning's N = 0.024 No. of pipes = 2
Pipe size = 52.00(In.)

Following is data if FLOW RATE of 315.347(CFS) is
used so the total head loss = difference in head:
The total friction loss through the pipe is 4.000(Ft.)
Pipe friction loss = 1.340(Ft.)
Minor friction loss = 2.662(Ft.) K-factor = 1.50
Note: Pressure flow at pipe inlet
Calculated flow rate through pipe(s) = 315.347(CFS)
Pipe flow velocity = 10.69(Ft/s)

TOTAL OUTFLOW at this depth = 315.35(CFS)

DEVELOPED RUNOFF

WENTWORTH WAY

Rational Hydrology Study Date: 9/25/91

********* Hydrology Study Control Information **********

Rational hydrology study storm event year is 100.0
Number of [time,intensity] data pairs = 6

No.	Time	-	Intensity
1	5.000		3.743
2	10.000		2.678
3	15.000		2.202
4	30.000		1.575
5	60.000		1.127
6	120.000		0.806

Soil antecedent moisture condition (AMC) = 3
For SCS soil loss calculations, 24 hour rainfall = 6.000(In.)
English Units used:
Area = acres, Distance = feet, Flow q = ft^3/s, Pipe diam. = inches
Runoff coefficient method used:
Runoff coefficient 'c' value calculated for the
equation Q=KCIA (K=unit constant, I=rainfall intensity, A=area;
by the following method:
Development and soil type where
c = 0.9*(ai + (i-Fp)*ap/i), for i > Fp
or c = 0.9*ai, for i <= Fp
where ap = pervious area fraction; ai = 1. - ap
Fp = 1. - y; Fm = ap*Fp
y = (p24 - .2s)^2 / ((p24 + .8s)*p24)
where s = 1000/cn - 10; p24 = 24 hour rain;
and cn = soil conservation service soil curve
number - scs cn

Rational Hydrology Method used:

The rational hydrology method is used where the area
of each subarea in a stream, subarea 'c' value, and rain-
fall intensity for each subarea is used to determine the
subarea flow rate Q, of which values are summed for total q

Stream flow confluence option used:

Stream flow confluence method of 2 - 5 streams:
Note: in all cases, if the time of concentration
or TC of all streams are identical, then q = sum of stream flows
Variables p=peak; i=intensity; Fm=loss rate; a=area; 1...n flows
q = flow rate, t = time in minutes
Stream flows summed; qp = q1 + q2 + ... qn
TC = t of stream with largest q

++
Process from Point/Station 3.000 to Point/Station 4.000
**** INITIAL AREA EVALUATION ****

RESIDENTIAL(3 - 4 du/ac; 8 - 9 du/ha)
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 1.000
SCS curve number for soil(AMC 2) = 75.00

```
Adjusted SCS curve number for AMC 3 = 91.00
Pervious ratio(Ap) = 0.6000     Max loss rate(Fm)=     0.104(In/Hr)
Initial subarea data:
Equations shown use english units, converted if necessary to (SI)
Initial area flow distance =  7520.000(Ft.)
Top (of initial area) elevation =  1490.000(Ft.)
Bottom (of initial area) elevation =  1110.000(Ft.)
Difference in elevation =   380.000(Ft.)
Slope =    0.05053  s(%)=       5.05
TC = 1.8*(1. -c(0.000))*d^.5 / s(%)^.333)
Initial area time of concentration =  100.058 min.
Rainfall intensity =      0.913(In/Hr) for a   100.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.797


Subarea runoff =    381.974(CFS)


Total initial stream area =      525.000(Ac.)


Pervious area fraction = 0.600
Initial area Fm value =    0.104(In/Hr)
End of computations, total study area =          525.00 (Ac.)
The following figures may
be used for a unit hydrograph study of the same area.
Note: These figures do not consider reduced effective area
effects caused by confluences in the rational equation.

Area averaged pervious area fraction(Ap) = 0.600
Area averaged SCS curve number =  75.0
```

CULVERT CAPACITY

KIMBERLY ROAD

*** Improved Channel Analysis ***

Upstream (headworks) Elevation = 100.000(Ft.)
Downstream (outlet) Elevation = 99.600(Ft.)
Runoff/Flow Distance = 50.000(Ft.)

++

*** CALCULATED OUTFLOW DATA AT INLET DEPTH = 8.00(Ft.) ***

Channel Type: PRESSURE/NON-PRESSURE PIPE
Height of channel inlet = 100.000(Ft.)
Water surface elevation at inlet = 108.000(Ft.)
Height of channel outlet = 99.600(Ft.)
Water surface elevation at outlet = 104.600(Ft.)
Difference in depth at inlet = 3.40(Ft.)
Pipe length = 50.00(Ft.)
Manning's N = 0.024 No. of pipes = 2
Pipe size = 60.00(In.)

Following is data if FLOW RATE of 398.898(CFS) is
used so the total head loss = difference in head:
The total friction loss through the pipe is 3.400(Ft.)
Pipe friction loss = 0.999(Ft.)
Minor friction loss = 2.403(Ft.) K-factor = 1.50
Note: Pressure flow at pipe inlet
Calculated flow rate through pipe(s) = 398.898(CFS)
Pipe flow velocity = 10.16(Ft/s)

TOTAL OUTFLOW at this depth = 398.90(CFS)

DEVELOPED RUNOFF

KIMBERLY ROAD

Rational Hydrology Study Date: 9/25/91

********* Hydrology Study Control Information **********

Rational hydrology study storm event year is 100.0
Number of [time,intensity] data pairs = 6

No.	Time	-	Intensity
1	5.000		3.743
2	10.000		2.678
3	15.000		2.202
4	30.000		1.575
5	60.000		1.127
6	120.000		0.806

Soil antecedent moisture condition (AMC) = 3
For SCS soil loss calculations, 24 hour rainfall = 6.000(In.)
English Units used:
Area = acres, Distance = feet, Flow q = ft^3/s, Pipe diam. = inches
Runoff coefficient method used:
Runoff coefficient 'c' value calculated for the
equation Q=KCIA (K=unit constant, I=rainfall intensity, A=area;
by the following method:
Development and soil type where
c = 0.9*(ai + (i-Fp)*ap/i), for i > Fp
or c = 0.9*ai, for i <= Fp
where ap = pervious area fraction; ai = 1. - ap
Fp = 1. - y; Fm = ap*Fp
y = (p24 - .2s)^2 / ((p24 + .8s)*p24)
where s = 1000/cn - 10; p24 = 24 hour rain;
and cn = soil conservation service soil curve
number - scs cn

Rational Hydrology Method used:

The rational hydrology method is used where the area
of each subarea in a stream, subarea 'c' value, and rain-
fall intensity for each subarea is used to determine the
subarea flow rate Q, of which values are summed for total q

Stream flow confluence option used:

Stream flow confluence method of 2 - 5 streams:
Note: in all cases, if the time of concentration
or TC of all streams are identical, then q = sum of stream flows
Variables p=peak; i=intensity; Fm=loss rate; a=area; 1...n flows
q = flow rate, t = time in minutes
Stream flows summed; qp = q1 + q2 + ... qn
TC = t of stream with largest q

++
Process from Point/Station 3.000 to Point/Station 5.000
**** INITIAL AREA EVALUATION ****

RESIDENTIAL(3 - 4 du/ac; 8 - 9 du/ha)
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 1.000
SCS curve number for soil(AMC 2) = 75.00

```
Adjusted SCS curve number for AMC 3 = 91.00
Pervious ratio(Ap) = 0.6000     Max loss rate(Fm)=     0.104(In/Hr)
Initial subarea data:
Equations shown use english units, converted if necessary to (SI)
Initial area flow distance =  8620.000(Ft.)
Top (of initial area) elevation =  1490.000(Ft.)
Bottom (of initial area) elevation =  1100.000(Ft.)
Difference in elevation =   390.000(Ft.)
Slope =    0.04524  s(%)=       4.52
TC = 1.8*(1. -c(0.000))*d^.5 / s(%)^.333)
Initial area time of concentration =  111.148 min.
Rainfall intensity =      0.853(In/Hr) for a   100.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.790


Subarea runoff =    404.505(CFS)


Total initial stream area =      600.000(Ac.)


Pervious area fraction = 0.600
Initial area Fm value =    0.104(In/Hr)
End of computations, total study area =          600.00 (Ac.)
The following figures may
be used for a unit hydrograph study of the same area.
Note: These figures do not consider reduced effective area
effects caused by confluences in the rational equation.

Area averaged pervious area fraction(Ap) = 0.600
Area averaged SCS curve number =  75.0
```

CULVERT CAPACITY

COUNTRY CLUB DRIVE

*** Improved Channel Analysis ***

Upstream (headworks) Elevation = 100.000(Ft.)
Downstream (outlet) Elevation = 99.600(Ft.)
Runoff/Flow Distance = 50.000(Ft.)

++

*** CALCULATED OUTFLOW DATA AT INLET DEPTH = 5.00(Ft.) ***

Channel Type: TRAPEZOIDAL OR BOX
Height of channel inlet = 100.000(Ft.)
Water surface elevation at inlet = 105.000(Ft.)
Height of channel outlet = 99.600(Ft.)
Water surface elevation at outlet = 103.600(Ft.)
Difference in depth at inlet = 1.40(Ft.)
Covered channel
Channel base width = 6.000(Ft.)
Slope or 'Z' of left channel bank = 0.000
Slope or 'Z' of right channel bank = 0.000
Manning's 'N' = 0.015
Maximum depth of channel = 4.000(Ft.)
Channel flow top width = 6.000(Ft.)

Following data if a pressure FLOW RATE of 53.776(CFS)
is used so total head loss = difference in elevation:
Wetted perimeter = 14.80(Ft.) Flow area = 8.40(Sq.Ft)
Total head loss through channel = 1.399(Ft.)
Friction loss = 0.444(Ft.), Minor loss = 0.955(Ft.)
Note: Depth of flow is greater than inlet height

Total number of channels (same dimensions) = 2
Flow Velocity = 6.40(Ft/s)
Individual channel flow = 53.776(CFS)
Total capacity of channel(s) = 107.553(CFS)

TOTAL OUTFLOW at this depth = 107.55(CFS)

DEVELOPED RUNOFF

COUNTRY CLUB DRIVE

Rational Hydrology Study Date: 9/25/91

********* Hydrology Study Control Information **********

Rational hydrology study storm event year is 100.0
Number of [time,intensity] data pairs = 6

No.	Time	-	Intensity
1	5.000		3.743
2	10.000		2.678
3	15.000		2.202
4	30.000		1.575
5	60.000		1.127
6	120.000		0.806

Soil antecedent moisture condition (AMC) = 3
For SCS soil loss calculations, 24 hour rainfall = 6.000(In.)
English Units used:
Area = acres, Distance = feet, Flow q = ft^3/s, Pipe diam. = inches
Runoff coefficient method used:
Runoff coefficient 'c' value calculated for the
equation Q=KCIA (K=unit constant, I=rainfall intensity, A=area;
by the following method:
Development and soil type where
c = 0.9*(ai + (i-Fp)*ap/i), for i > Fp
or c = 0.9*ai, for i <= Fp
where ap = pervious area fraction; ai = 1. - ap
Fp = 1. - y; Fm = ap*Fp
y = (p24 - .2s)^2 / ((p24 + .8s)*p24)
where s = 1000/cn - 10; p24 = 24 hour rain;
and cn = soil conservation service soil curve number - scs cn

Rational Hydrology Method used:

The rational hydrology method is used where the area
of each subarea in a stream, subarea 'c' value, and rain-
fall intensity for each subarea is used to determine the
subarea flow rate Q, of which values are summed for total q

Stream flow confluence option used:

Stream flow confluence method of 2 - 5 streams:
Note: in all cases, if the time of concentration
or TC of all streams are identical, then q = sum of stream flows
Variables p=peak; i=intensity; Fm=loss rate; a=area; 1...n flows
q = flow rate, t = time in minutes
Stream flows summed; qp = q1 + q2 + ... qn
TC = t of stream with largest q

++
Process from Point/Station 3.000 to Point/Station 6.000
**** INITIAL AREA EVALUATION ****

RESIDENTIAL(3 - 4 du/ac; 8 - 9 du/ha)
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 1.000
SCS curve number for soil(AMC 2) = 75.00

```
Adjusted SCS curve number for AMC 3 = 91.00
Pervious ratio(Ap) = 0.6000     Max loss rate(Fm)=     0.104(In/Hr)
Initial subarea data:
Equations shown use english units, converted if necessary to (SI)
Initial area flow distance =  9440.000(Ft.)
Top (of initial area) elevation =  1490.000(Ft.)
Bottom (of initial area) elevation =  1095.000(Ft.)
Difference in elevation =   395.000(Ft.)
Slope =    0.04184  s(%)=       4.18
TC = 1.8*(1. -c(0.000))*d^.5 / s(%)^.333)
Initial area time of concentration =  119.383 min.
Rainfall intensity =      0.809(In/Hr) for a   100.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.784
Subarea runoff =    472.717(CFS)
Total initial stream area =       745.000(Ac.)
Pervious area fraction = 0.600
Initial area Fm value =    0.104(In/Hr)
End of computations, total study area =          745.00 (Ac.)
The following figures may
be used for a unit hydrograph study of the same area.
Note: These figures do not consider reduced effective area
effects caused by confluences in the rational equation.

Area averaged pervious area fraction(Ap) = 0.600
Area averaged SCS curve number =  75.0
```

DEPARTMENT OF TRANSPORTATION

INTEROFFICE COMMUNICATION

Date: January 10, 1992

To: Ken Greenwood, Planning Department

From: Craig McKibbin, Department of Transportation

Subject: Bass Lake Road Study Area Program EIR

The Department of Transportation has the following additional information regarding this document. This is based on several meetings we have attended including the latest on November 19, 1991:

1) The department believes that the projects within the study area of this EIR can adequately mitigate their traffic impacts to Bass Lake Road through the construction of a four lane facility to replace the existing two lane road. This would include the appropriate right-of-way acquisition on both sides of the road. Several of the property owners within the study area have proposed a methodology to get this accomplished.

2) In addition to the requirements of number 1) above, the project proponents will be required to dedicate right-of-way for the future six lane facility along the frontages of their properties. This will enable the County to construct the additional lanes when they are needed without having to resort to right-of-way acquisition on these properties.

3) We recognize that the projects within the study area, as currently proposed, reflect a significant reduction in densities from the densities used in the traffic study prepared for the EIR. This has reduced the actual project impacts to somewhat below those shown in the EIR.

4) We understand that R.C. Fuller is including an analysis in the final EIR of the proposed realignment of Bass Lake Road in the vicinity of the future Village Green Parkway as we requested. If this is incorrect please let me know as soon as possible.

5) The project proponenets have suggested that a threshold be identified that specifies when the improvements to Bass Lake Road would be initiated. Such a threshold would need to insure that the road would not go to Level of Service (LOS) "D" at anytime. This means the threshold for the start of the construction would as a minimum have to proceed the need for the improvements (the transition from LOS "C" to "D") by the time it would take for construction. To insure this happens, and to make the map conditions of approval cleaner, I recommend that the maps be conditioned to construct the

improvements as we would do with any other sub-division. The other alternative is to have all of the project proponents involved in one development agreement that would clearly delineate their responsibilities and the timing of the work. Other options may also be viable.

6) The funding of the improvements and right-of-way described in numbers 1) and 2) above is still being discussed. The DOT is developing a reimbursement policy for the Board of Supervisors consideration in the near future. This policy discussion should clarify this issue. The project proponents have proposed "that completion of Bass Lake Road between U.S. 50 and the Hawkview/Hollow Oak intersection,...will be in lieu of traffic fees for the identified projects." We will be working closely with the project proponents on this issue to insure that the necessary mitigations for Bass Lake Road will be in place when they are needed.

CDM:cdm

cc: Steve Hust
Kris Payne
Bill Pearson
R.C. Fuller
Norm Brown
Dave Crosariol
Phil Rowe
John Bayless

COUNTY OF
EL DORADO

COMMUNITY DEVELOPMENT DEPARTMENT
PLANNING DIVISION

MAIN OFFICE:
360 FAIR LANE
PLACERVILLE, CA 95667
(916) 621-5355

SOUTH LAKE TAHOE OFFICE:
1359 JOHNSON BLVD
P.O. BOX 14506
SOUTH LAKE TAHOE, CA 95702
(916) 573-3145

December 5, 1991

Richard Fuller
R.C. Fuller Associates
5908 Fair Oaks Boulevard
Carmichael, CA 95608

RE: Comment Received on Bald Eagles in the Bass Lake Road Study Area

Dear Mr. Fuller:

Per our discussion on December 3, 1991, I am forwarding a letter received by Bob Dorr's office from Sharon Johnson regarding bald eagles in the Bass Lake Road area. Also enclosed is a letter transmitting Ms. Johnson's letter to the California Department of Fish and Game and the United States Fish and Wildlife Service.

As we discussed, I have requested agency response to this letter within ten days to expedite the Final EIR process. I believe that minor revisions made during this process will satisfy the statutory requirements of CEQA. Impacts to this resource are unavoidable despite efforts to preserve roost trees in the project area; however, the impacts will be mitigated to the extent possible. The actual resource will be more impacted by planned development immediately adjacent to Bass Lake. I have notified our staff members processing applications within those project areas of this resource.

If I receive any input from these agencies, I will forward it to you immediately. If you have any questions, please contact me at (916) 621-5355.

Sincerely,

Ken R Greenwood

Ken Greenwood
Senior Planner

Enclosures (2)

cc: Steven Hust

(KG/ltrs/BassLake)

COUNTY OF
EL DORADO

COMMUNITY DEVELOPMENT DEPARTMENT
PLANNING DIVISION

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(916) 573-3145

MEMORANDUM

TO: Bass Lake Road Study Area Program EIR File
(SCH #90020375)

FROM: Ken R. Greenwood, Senior Planner KRG

DATE: January 7, 1991

SUBJECT: Bald Eagles Within and Nearby
the Bass Lake Road Study Area

Following receipt of correspondence from Sharon Johnson, a citizen concerned about the impacts of nearby development on the Bald Eagle population that winters around Bass Lake, I contacted the U.S. Fish and Wildlife Service (U.S.F.W.S.) and the California Department of Fish and Game (C.D.F.G.) (attached). Both agencies were asked to comment on the concerns raised.

To date, I have been contacted by telephone by Phil Detrich of the U.S.F.W.S.; I have not been contacted by C.D.G.F. staff. Mr. Detrich and I discussed the situation at length and came to the conclusion that the project itself did not represent a significant impairment of essential behavior patterns (i.e. feeding at Bass Lake). Therefore, the Endangered Species Act is not triggered, particularly because alternative winter foraging sites exist nearby (Folsom Lake, Jenkinson Reservoir and other foothill reservoirs).

Mr. Detrich described the use of oak trees within the project area as an "isolated foraging roost" and indicated retention of such habitat would be beneficial. He went on to suggest that the more significant "day roosting" and very significant "night roosting" habitat is likely adjacent to Bass lake itself. Ideally, retention of that habitat would benefit the eagles most. However, that habitat is not within the project area and not subject to conditions under the law until E.I.D. seeks some form of permit.

The Final EIR will contain more specific reference to the eagles and a discussion similar to the above regarding the resource. This should satisfy requirements under the California Environmental Quality Act.

KRG:cmt

Attachment

cc: Steven Hust
Sharon Johnson
Lew Archuletta, El Dorado Irrigation District
Robert E. Dorr, Supervisor, District I
R.C. Fuller Associates
Bass Lake Group

(KG/memos/BassLake)

APPENDIX C:

MINUTES OF THE PLANNING COMMISSION MEETING
AUGUST 8, 1991

systems are permitted for either voice or music amplification.

8. ENVIRONMENTAL IMPACT REPORT (Public Hearing)

a. Bass Lake Road Study Area Program Environmental Impact Report: The project area consists of 1,223.1 acres which includes 89 existing parcels, ranging in size from 1.1 to 9.6 acres. The area is generally located south of Bass Lake, north of Highway 50, and between the unincorporated communities of El Dorado Hills and Cameron Park.

Steven Hust said Randy Chafin was also present, and he is the contract planner for six of the subdivisions in this area. Mr. Hust also said Bob Languill from R. C. Fuller was present and would have a presentation on the EIR.

Mr. Hust briefly explained the purpose and content of an EIR. He said to date several letters have been received from public agencies and presented copies of the letters to the Commission. First Vice Chairman Harris asked that Mr. Hust briefly summarize these letters.

First Vice Chairman Harris asked where the majority of the water supply will be coming from for this area. Mr. Hust said it is his understanding the major source is from upstream. These properties are not part of AD3. First Vice Chairman Harris asked if there is a breakdown on the amount of water that will be required for the subdivisions. Mr. Hust said only Hollow Oak is proceeding at the present time, and the Gold Hill Intertie is the main source of water.

With reference to the Program EIR, Commissioner Osborn asked if future applicants will be able to extrapolate information from this EIR for their documents. Mr. Hust said that could be done. Also, there is the possibility some of those projects will be able to proceed on the mitigated negative declaration after this EIR has been certified.

Mr. Hust said the Planning Division will be receiving additional comments on the adequacy of the EIR up to August 29, 1991.

Commissioner Osborn asked when staff expects the final EIR, and when will it come back before the Commission for certification? Mr. Hust said ordinarily it would take approximately two weeks for responses to comments that are fairly insignificant. On a project of this scale, it would be a range of six to eight weeks to address all the agency comments.

Bob Languill, R. C. Fuller Associates, explained a Program EIR. He said the Program EIR is more general.

Mr. Languill said he would focus on the nine impacts they feel are significant in the document. Of those nine, three are not necessarily adverse, Land Use, Population and Housing, and Visual Aesthetics. With development, you will have these three impacts. Four adverse impacts that could have possible mitigation measures are traffic, water supply, fire protection, and schools. Bass Lake Road is the major arterial that serves this whole area. Even with widening the road to current standards, you will have Level of Service F. This project is not in the El Dorado Irrigation District. Based on that alone, this is a significant impact. Fire protection and schools can be mitigated. Vegetation and wildlife cannot be mitigated.

Commissioner Griffiths said this is the first Program EIR to come before this Commission and is vague as there is no specific project. He asked if each subsequent project will have to prepare an more detailed EIR. Mr. Maurer said this EIR will not eliminate specific environmental documents for each project. A negative declaration or additional EIR may be required on subsequent projects.

Bill Pearson, Department of Transportation, said their comments to the Administrative EIR were not incorporated in the draft EIR.

Referring to Section E3, Commissioner Griffiths asked if this will go through the Department of Transportation. Mr. Pearson said it will. They will review drainage, hydrology, and grading.

Bill Holliman, El Dorado Hills Development Company, said the El Dorado Hills Specific Plan is the largest planning document in this area. There is also a development agreement for this area. Their only concern is that this Program EIR take into account the substantial amount of environmental assessment already done. This document needs to take into consideration the Specific Plan Area.

Al Franzoia, Benson & Sedar, said they would like to request being placed on the list for the hearing for the Final EIR and would like a copy of that document.

Jack Tyler, El Dorado Hills Community Services District, said he would like to expand on recreational facilities for this area. The impact to this area is significant, and he does not know how it will be mitigated. Quimby fees will not do it. There needs to

be a mechanism put in place so land can be assembled from different projects.

Harriett Segel, El Dorado Hills/Salmon Falls Advisory Committee, submitted a letter with their comments. She said F1 indicates chaparral, and it is very heavily oak covered land. Mrs. Segel said she also questions the reference to this area being between El Dorado Hills and Cameron Park. The people in this area consider it part of El Dorado Hills.

The hearing was closed.

Commissioner Goltz referred to the information received prior to the meeting from Mr. Maurer listing the maps requiring EID. She read the number of lots that will be created from the projects in this area.

Commissioner Griffiths said the wetlands will be addressed at the tentative map stage. Under Hydrology and Water Quality, there is one paragraph speaking about the value of wetlands. Creation of wetlands can be expensive which points out the value of existing wetlands. Our water quality is dependent on how much attention we pay to this.

Mr. Hust said a Program EIR is to deal with policy issues. The wetlands issue could be one of those areas where there could be a policy decision. Mr. Tyler's comments on parks is another policy issue that should be examined.

There were no further comments.

AS THIS HEARING WAS FOR PUBLIC INPUT ONLY, NO ACTION WAS NECESSARY.

9. DESIGN REVIEW

a. Design Review 89-21: to allow a commercial retail center sign, approximately 66.5 square feet in size and 9 feet in height, in the Cool Town Center. The property, identified by Assessor's Parcel Number 71-080-10, consists of 2.009 acres, is currently zoned Commercial-Design Control (C-DC), and is located on the west side of State Highway 49, approximately 383.67 feet north of State Highway 193 in the Cool/Pilot Hill Area Plan. Applicant: Horn, Pon and Roediger (Categorically Exempt pursuant to Section 15311(a) of the CEQA Guidelines)**

Pierre Rivas presented this item with a recommendation for approval.

APPENDIX D:

TJKM ADDITIONAL TRAFFIC ANALYSIS

TJKM TRANSPORTATION CONSULTANTS

January 20, 1992

Mr. Richard C. Fuller
R.C. Fuller and Associates
5908 Fair Oaks Boulevard
Carmichael, CA 95608

Dear Mr. Fuller:

Re: Additional Traffic Analysis for the Bass Lake Road Program EIR Traffic Analysis

As requested, TJKM has prepared this letter report providing additional traffic analysis pertaining to the Bass Lake Road Program EIR. The traffic study for the program EIR was performed by Omni-Means, Ltd. Specifically, analysis of impacts at the Bass Lake Road/U.S. 50 interchange has been conducted for existing plus project and year 2001 buildout scenarios.

In summary, the analysis provided indicates project traffic impacts can be accommodated in the existing a.m. peak hour plus project scenario with signalization of the westbound ramp intersection, which is a planned improvement as part of El Dorado County's traffic mitigation fee program. Traffic volumes projected in year 2001 can be accommodated with interim improvements to the interchange as will be discussed. Generally, the interim improvements include widening the eastbound off-ramp to provide dual left turn lanes, signalizing the eastbound off-ramp intersection and striping Bass Lake Road to provide two northbound through lanes between the two ramps.

This report analyzes intersection capacity utilizing the critical lane methodology for calculating volume-to-capacity ratios and level of service (LOS) values. A description of the program developed by TJKM which calculates volume-to-capacity ratios using the critical lane method and a description of level of service is explained further in Attachment A.

9807 Fair Oaks Boulevard, Suite 100, Fair Oaks, California 95628 • (916) 961-0636
FAX (916) 961-7563

PLEASANTON • SACRAMENTO • FRESNO • CONCORD

Existing A.M. Peak Hour Plus Project Scenario

Existing a.m. peak hour traffic counts at the Bass Lake Road interchange were taken on January 9, 1992. Figure 1 shows the existing a.m. peak hour traffic volumes obtained as part of this analysis. Table I shows the volume-to-capacity ratios and LOS values calculated using the critical lane methodology. As shown, the ramp intersections are operating at LOS A during the morning peak hour, which can be described as free flow conditions with slight or no delay. In addition, the intersections currently do not meet the peak hour warrant for signalization during the a.m. peak hour. Attachment B contains volume-to-capacity worksheets for this and all subsequent intersection capacity calculations.

Project a.m. peak hour traffic generation was obtained from the project p.m. peak hour volumes contained in the Omni-Means study, the three dwelling units per acre alternative. Since most of the Bass Lake Road Program EIR is residential, project a.m. peak hour volumes can be assumed to be travelling in the opposite direction of and equal to eighty-five percent of the project p.m. peak hour volumes. Figure 2 shows the resulting traffic volumes when project a.m. peak hour volumes are added to existing.

Table I also shows the volume-to-capacity ratios and LOS values calculated for the existing plus project a.m. peak hour traffic volumes. As shown, the eastbound ramp intersection is projected to operate at LOS A conditions with a corresponding volume-to-capacity ratio of 0.56. The peak hour signal warrant is not met in the existing plus project a.m. peak hour scenario at the eastbound ramp intersection. The westbound ramp intersection is projected to operate at LOS C conditions with a corresponding volume-to-capacity ratio of 0.71. The rural peak hour signal warrant is met in the existing plus project a.m. peak hour scenario at this location.

In order to mitigate project impacts in the existing plus project a.m. peak hour, no additional turn lanes are needed along the Bass Lake Road interchange. El Dorado County will signalize both ramp locations as part of their traffic mitigation fee program. Therefore, even if the rural peak hour signal warrant were applicable for assessing signalization needs at this location, there are already plans for this improvement to take place.

Year 2001 Buildout Scenario

Traffic projections for year 2001 were obtained from the El Dorado County traffic model developed by TJKM. Land use data by traffic analysis zone was provided by El Dorado County staff reflecting year 2001 buildout of projects within and near the Bass Lake Road Program EIR study area. Attachment C contains the land use assumptions by traffic analysis zone for year 2001 provided by El Dorado County. The parent traffic model contains land use assumptions for buildout of the County. The traffic analysis zones not addressed by the County were also reduced to reflect the difference between buildout of the County and the year 2001 buildout scenario.

Figures 3 and 4 show the a.m. and p.m. peak hour traffic volumes projected for the year 2001. Table II shows the corresponding volume-to-capacity ratios and LOS values calculated with the year 2001 volumes. As shown, the ramps both operate at LOS F during the p.m. peak hour conditions in the year 2001, assuming no road improvements other than signalization. LOS F conditions are characterized by forced flow conditions with excessive delays.

With improvements to the Bass Lake Road/US 50 interchange shown in Figure 5, year 2001 a.m. and p.m. peak hour traffic volumes can be accommodated at LOS C or better conditions. Table II shows the a.m. peak hour traffic volumes will operate at LOS B and LOS A at the eastbound and westbound ramp locations respectively. During the p.m. peak hour, projected traffic volumes for year 2001 will operate at LOS C and LOS B at the eastbound and westbound ramp locations respectively.

The Bass Lake Road/U.S. 50 interim interchange design was provided by Caltrans as an intermediate improvement to accommodate a ten-year buildout time horizon prior to the major interchange improvements recommended to accommodate buildout traffic volumes. Ultimate improvements include a partial clover (L-9) interchange design whereby the left turn lanes from Bass Lake Road to the freeway are replaced with loops located in the northeast and southwest quadrants of the interchange.

The interim interchange configuration presented in Figure 5 assumes widening at the Bass Lake Road/eastbound off-ramp intersection to provide dual eastbound left turn lanes, a shared eastbound right-through lane and two northbound through lanes. All other modifications can be accommodated within the existing widths available on Bass Lake Road and the off-ramps. The conceptual design provided by Caltrans shows 40 feet available from curb to curb on Bass Lake Road between the two ramps. This provides adequate width for two northbound lanes at twelve feet each, one southbound lane at twelve feet plus two foot shoulders along each curb lane.

Conclusions

As shown in this report, no improvements are needed over and above those already planned by the County to accommodate existing plus project a.m. peak hour traffic volumes at the Bass Lake Road/US 50 interchange. More significantly, the interim interchange configuration shown in Figure 5 of this report together with future signalization of the ramps by the County will accommodate traffic volumes projected for year 2001.

Further development over and above that estimated for year 2001 can be accommodated at the Bass Lake Road interchange. Traffic volumes projected for the year 2001, plus the traffic volume generated from approximately 170 dwelling units, could be accommodated at the Bass Lake Road interchange at acceptable levels of service. Application of a four percent growth factor over and above the year 2001 p.m. peak hour volumes projected at the Bass Lake/US 50 eastbound ramp intersection increases the eastbound left-turn movement total by 56 vehicles. Assuming an inbound p.m. peak hour trip rate of 0.65 for residential dwelling units and fifty percent of the project traffic distributed to the west on US 50, the 56 vehicles translates into 170 dwelling units. Any increase larger than four percent produces LOS D conditions at the eastbound ramp intersection.

If I can be of any further assistance regarding traffic analysis for the Bass Lake Road Program EIR, please give me a call.

Sincerely,

Raymond V. Hussey

Raymond V. Hussey
Transportation Planner
jc
a\128-051R.1RH

TABLE I

Existing Plus Project A.M. Peak Hour Volume-to-Capacity Ratios and Levels of Service Values at Bass Lake Road/US 50 Ramps

		Existing		Existing Plus Project	
North-South Street	East-West Street	A M		A M	
		V/C	LOS	V/C	LOS
Bass Lake Road	US 50 EB Ramps	0.16	A	0.56	A
Bass Lake Road	US 50 WB Ramps	0.22	A	0.71	C*

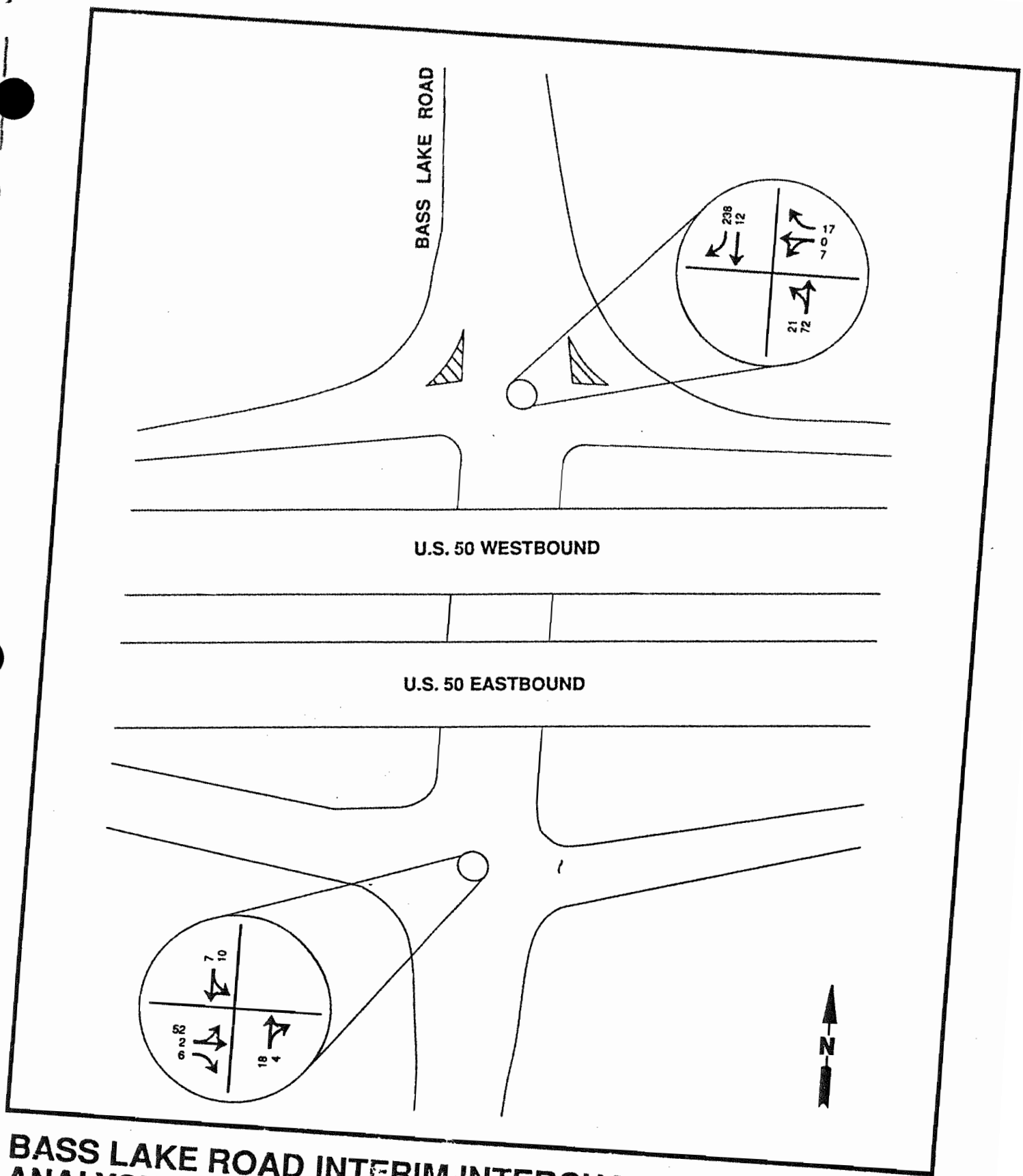
* : Meets Peak Hour Signal Warrant

TABLE II

Year 2001 Buildout A.M. and P.M. Peak Hour Volume-to-Capacity Ratios and Levels of Service Values at Bass Lake Road/US 50 Ramps

		Year 2001 Buildout w/ Existing Interchange Configuration			
North-South Street	East-West Street	A M		P M	
		V/C	LOS	V/C	LOS
Bass Lake Road	US 50 EB Ramps	0.92	E*	1.15	F*
Bass Lake Road	US 50 WB Ramps	1.49	F*	1.69	F*
		Year 2001 Buildout w/ Interim Interchange Configuration			
Bass Lake Road	US 50 EB Ramps	0.63	B*	0.78	C*
Bass Lake Road	US 50 WB Ramps	0.57	A	0.69	B

* : Meets Peak Hour Signal Warrant



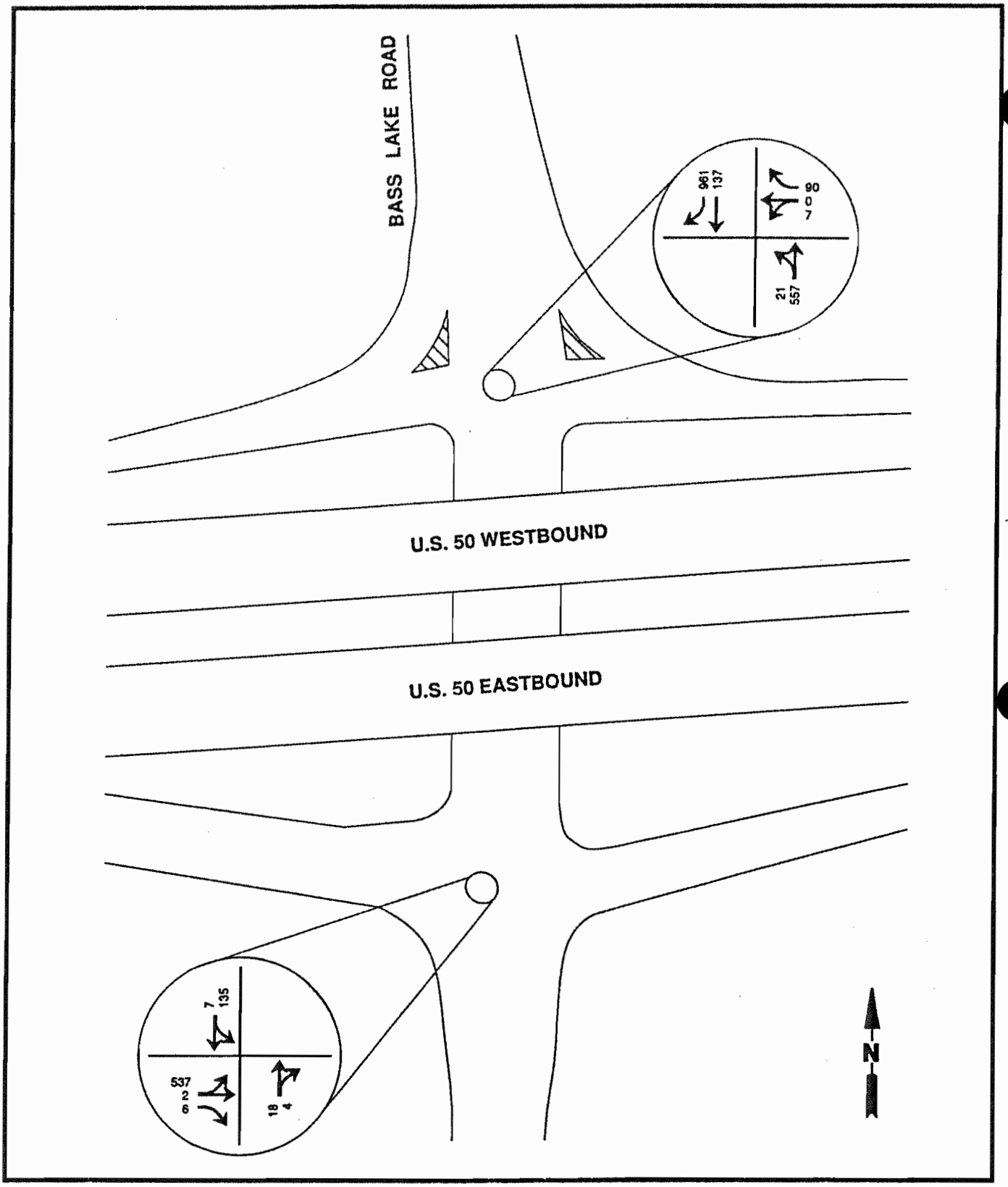
BASS LAKE ROAD INTERIM INTERCHANGE ANALYSIS

FIGURE 1 EXISTING A.M. PEAK HOUR VOLUMES

PREPARED BY

JKM

128-051 - 1/92 - RH

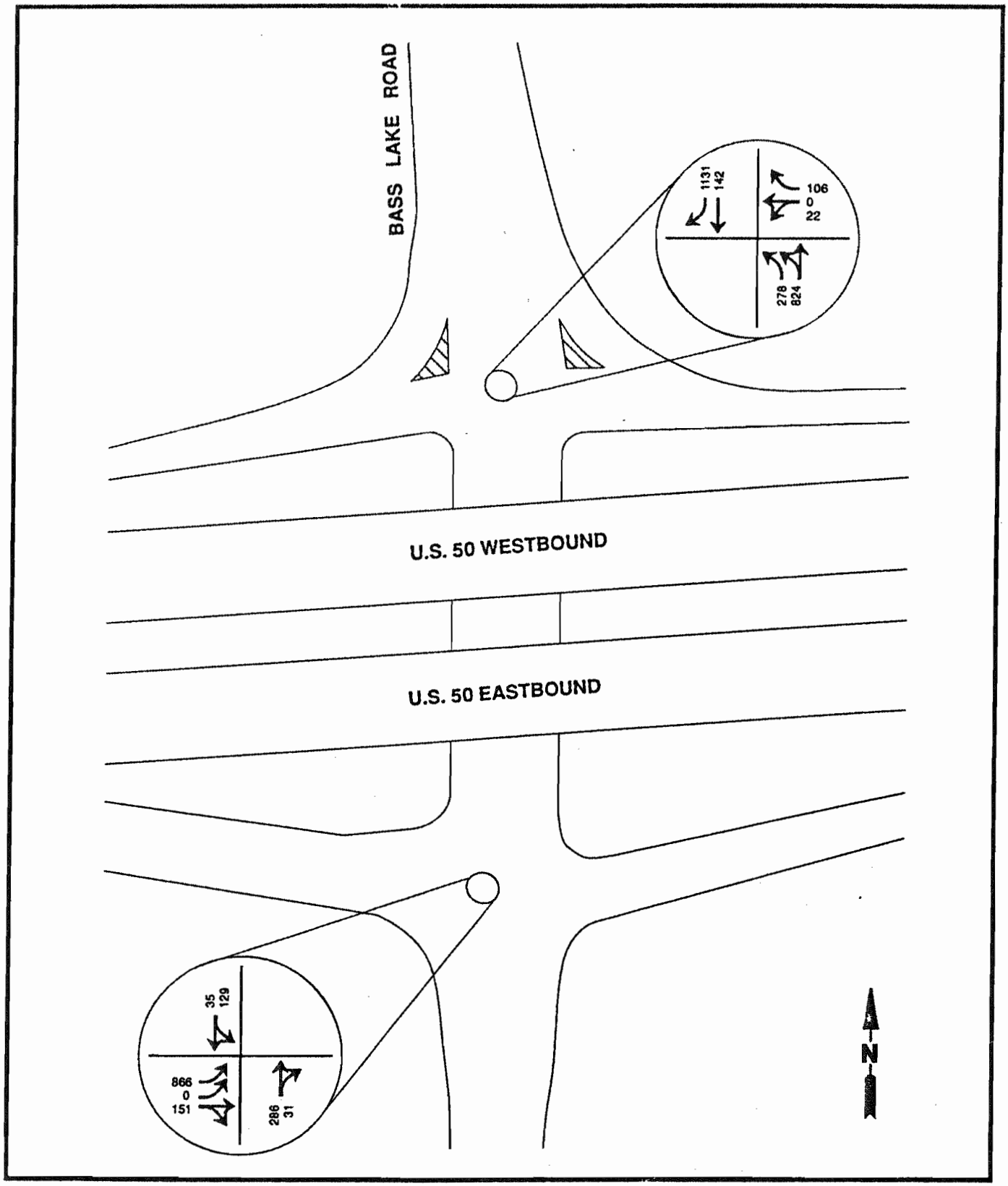


BASS LAKE ROAD INTERIM INTERCHANGE ANALYSIS

FIGURE 2 EXISTING PLUS PROJECT A.M. PEAK HOUR VOLUMES

PREPARED BY JKM

128-051 - 1/92 - RH



BASS LAKE ROAD INTERIM INTERCHANGE ANALYSIS

FIGURE 3 YEAR 2001 A.M. PEAK HOUR VOLUMES

PREPARED BY JKM

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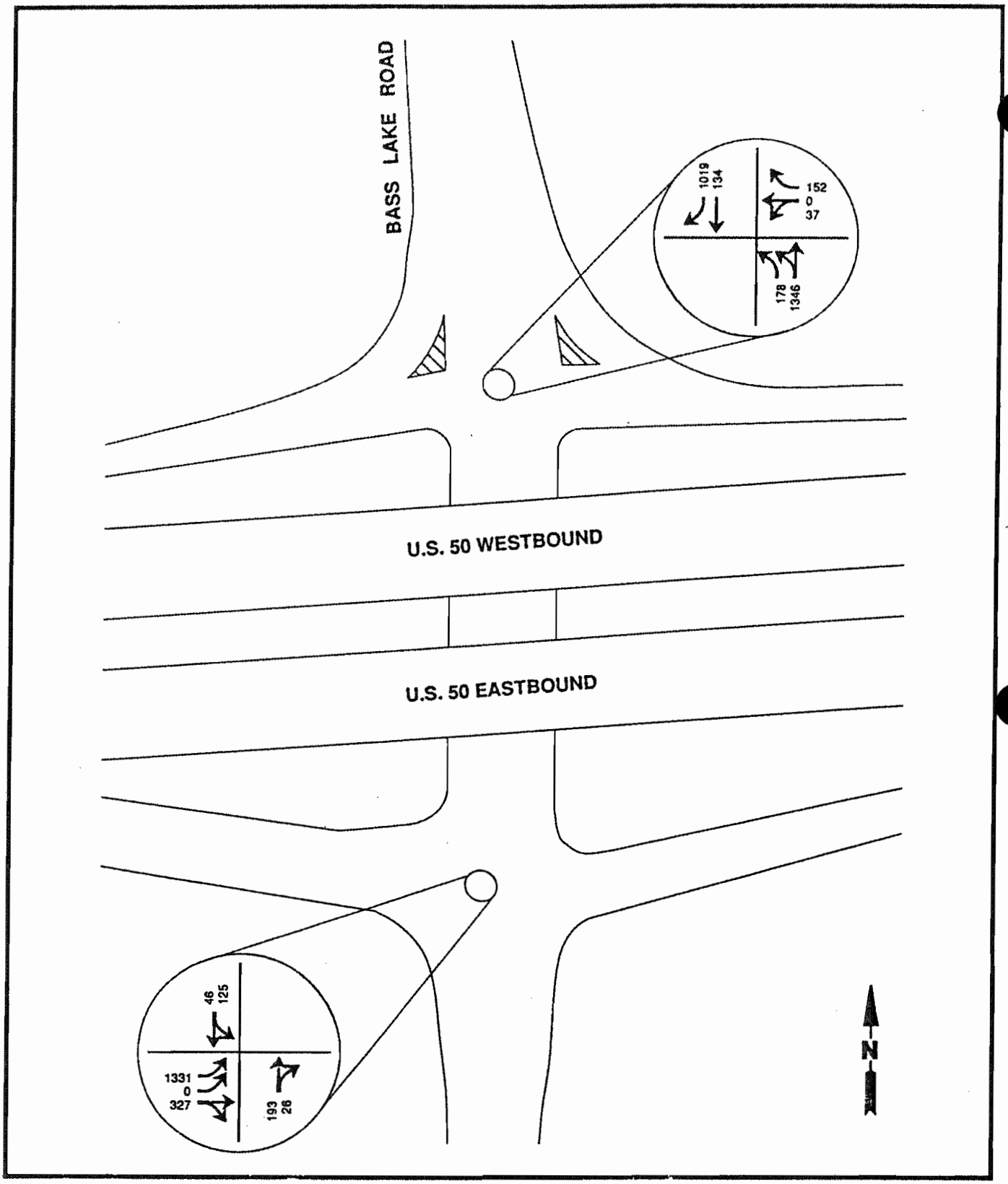


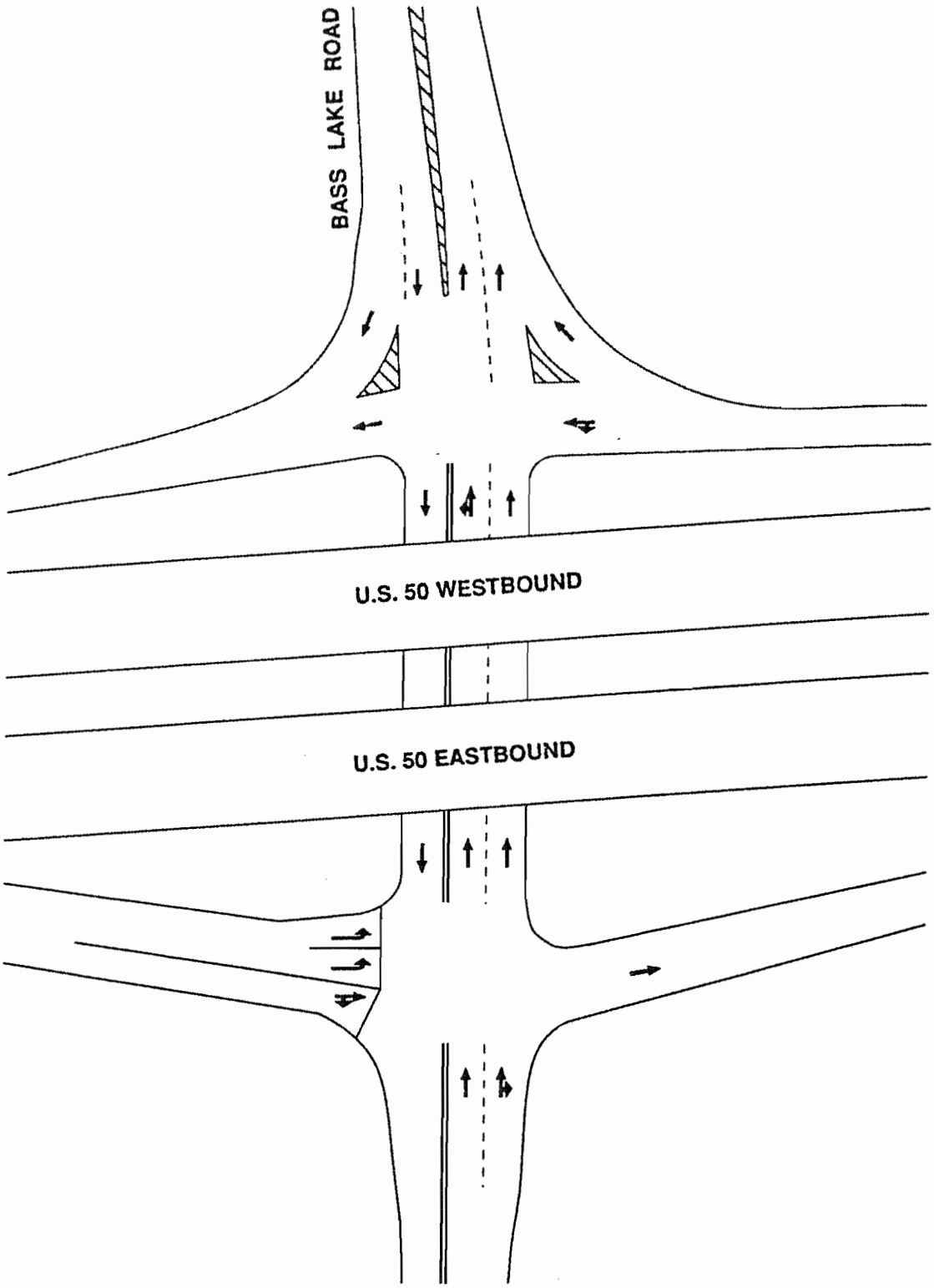
BASS LAKE ROAD INTERIM INTERCHANGE ANALYSIS

FIGURE 4 YEAR 2001 P.M. PEAK HOUR VOLUMES

PREPARED BY

JKM

128-051 - 1/92 - RH



BASS LAKE ROAD INTERIM INTERCHANGE ANALYSIS

FIGURE 5 BASS LAKE ROAD - U.S. 50 INTERIM INTERCHANGE CONFIGURATION

PREPARED BY JKM

128-051 - 1/92 - RH

DESCRIPTION OF SIGNALIZED INTERSECTION CAPACITY ANALYSIS

TJKM utilizes a method of intersection capacity analysis known as the Intersection Capacity Utilization (ICU) method. A variation (and derivation) of the TJKM method, known as the critical movement analysis, is described in *Interim Materials on Highway Capacity*, Transportation Research Circular 212, January 1980, published by the Transportation Research Board of the National Academy of Sciences. The TJKM method is similar to the Planning Applications method of Signalized Intersection Analysis described in Circular 212.

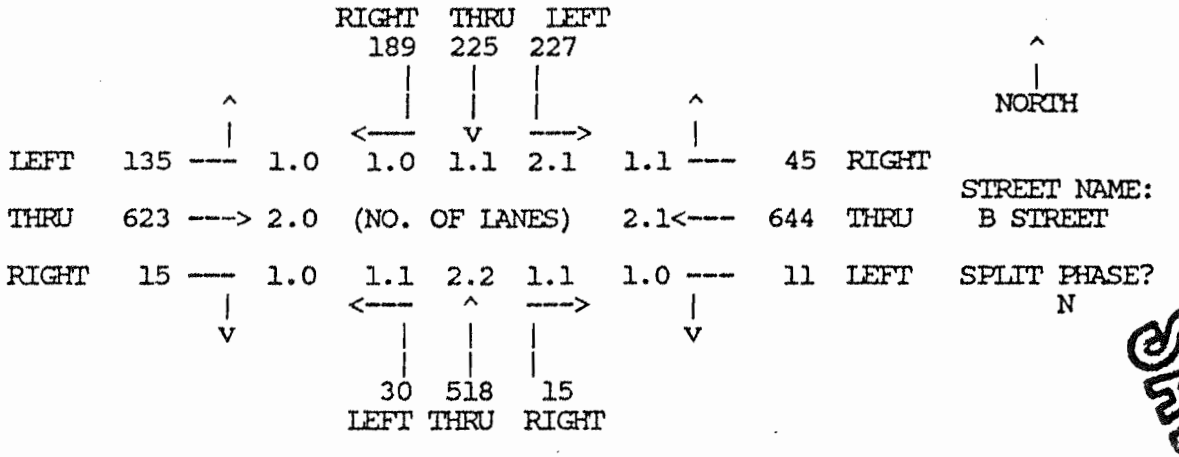
The method sums the volume-to-capacity (V/C) ratio of each governing (or critical) signal phase at an intersection to produce an overall intersection volume-to-capacity ratio. When the ratio of volume to capacity reaches unity (1.00), the intersection is "at capacity" and is described as operating at Level of Service E and approaching Level of Service F conditions. See the table "Summary of Levels of Service for Intersections" for the relationship between the level of service rating and volume-to-capacity ratio.

A sample calculation is shown on the accompanying computer print-out "TJKM Intersection Capacity Analysis." This example describes a hypothetical intersection of A Street and B Street, which is regulated by three phase traffic signals. The first phase is for southbound traffic only and contains three lanes. Right turn movements in the right lane (189 vehicles) have a smaller per lane volume than in the two remaining lanes (226 vehicles). Therefore, the length of the signal phase is governed by the traffic in the two left lanes. The capacity of Phase 1 is 2,700 vehicles per hour of green, the volume is 452 vehicles and the resulting volume-to-capacity ratio is 0.1674. Phase 2, for the northbound movements, has two lanes and a volume-to-capacity ratio of 0.1877. For Phase 3, the westbound through plus right traffic cannot proceed through the intersection at the same time as the eastbound left turn movement, even though they are on the same signal phase. Practically, the left turning vehicles and opposing through traffic alternate as gaps in traffic allow. The total Phase 3 capacity requirement is the sum of the westbound through and right combined, 0.2187, and the eastbound left, 0.0900. The critical movement V/C ratios are summed, then rounded to two decimal places. An allowance for yellow time (assumed to be lost time for vehicle movement) is added to obtain the overall intersection volume-to-capacity rating. In the example, the intersection rating of 0.76 equates to a Level of Service C designation.

The advantages of this type of capacity calculation is its direct relationship to actual intersection operations and the ease with which changes in volume or capacity (or both) can be analyzed. In addition, the level of accuracy of this method is comparable to that of the traffic projection process used to determine future traffic volumes.

TJKM INTERSECTION CAPACITY ANALYSIS

INTERSECTION 1 A STREET and B STREET ANYTOWN
COUNT DATE/TIME: 6/5/00 4:00-6:00 PM PEAK HOUR: 4:30-5:30 PM
CONDITION : P.M. PEAK HOUR - EXISTING FILE SAMPLE



STREET NAME: A STREET SPLIT PHASE? Y

MOVEMENT		ORIGINAL VOLUME	ADJUSTED VOLUME*	CAPACITY	V/C RATIO	CRITICAL V/C
NB	RIGHT (R)	15	15	1500	0.0100	
	THRU (T)	518	518	3000	0.1727	
	LEFT (L)	30	30	1500	0.0200	
	T + R		533	3000	0.1777	
	T + L		548	3000	0.1827	
	T + R + L		563	3000	0.1877	0.1877
SB	RIGHT (R)	189	42 *	1500	0.0280	
	THRU (T)	225	225	1500	0.1500	
	LEFT (L)	227	227	2700	0.0841	
	T + L		452	2700	0.1674	0.1674
EB	RIGHT (R)	15	0 *	1500	0.0000	
	THRU (T)	623	623	3300	0.1888	
	LEFT (L)	135	135	1500	0.0900	0.0900
WB	RIGHT (R)	45	45	1500	0.0300	
	THRU (T)	644	644	3150	0.2044	
	LEFT (L)	11	11	1500	0.0073	
	T + R		689	3150	0.2187	0.2187

VOLUME-TO-CAPACITY RATIO FOR THE INTERSECTION:	0.66
ADJUSTMENT FOR LOST YELLOW TIME:	0.10
TOTAL VOLUME-TO-CAPACITY RATIO:	0.76
INTERSECTION LEVEL OF SERVICE:	C

* ADJUSTED FOR RIGHT TURN ON RED

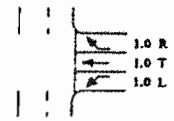
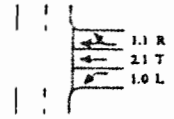
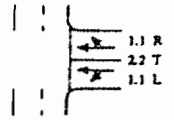
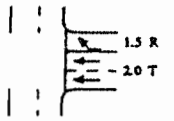
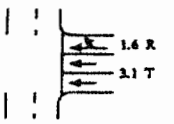
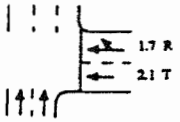
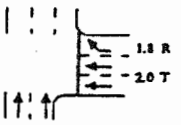
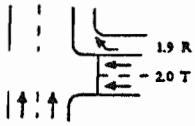
Developed by TJKM Transportation Consultants, Pleasanton, CA, 1989 YY

The number of lanes and the use of the lanes is denoted with a special nomenclature described below:

Lane Nomenclature

X,Y Where X Denotes the number of lanes available for a particular movement.

Y Denotes how the lanes are used.

When Y is ...		... The following applies:
0		A lane used exclusively for a particular movement (i.e. exclusive left-turn lane).
1		A lane which is shared, that is, either of two different movements can be made from a particular lane (i.e. a lane which is shared by through and right-turn traffic).
2		Denotes two or more through lanes in which two lanes are shared, one with left-turn traffic, the other with right-turn traffic.
3		Denotes an expressway through movement.
5		Denotes a right-turn movement from an exclusive right-turn lane with right-turn arrow and U-turn prohibition on the conflicting left-turn movement.
6		Denotes a right-turn movement from a shared lane with a right-turn arrow and U-turn prohibition on the conflicting left-turn movement.
7,8,9		Denotes a turning movement which has an additional lane to turn into, as shown below:
7		Turn lane which is shared and under signal control, and which has its own lane to turn into.
8		Exclusive turn lane which is under signal control, and which has its own lane turn into.
9		Exclusive turn lane not under signal control, often referred to as a "free" turn. Since the volumes in this lane do not conflict with other intersection movements, the V/C ratio of the free right-turn movement is not included in the sum of critical V/C ratios.

TJKM YELLOW TIME ADJUSTMENT FOR CALCULATING V/C RATIOS FOR V/C CALCULATIONS

Green Time	Add Yellow (Lost) Time	Total
0.71	0.10	0.81
0.72	0.10	0.82
0.73	0.10	0.83
0.74	0.10	0.84
0.75	0.09	0.84
0.76	0.09	0.85
0.77	0.08	0.85
0.78	0.08	0.86
0.79	0.07	0.86
0.80	0.07	0.87
0.81	0.06	0.87
0.82	0.06	0.88
0.83	0.05	0.88
0.84	0.05	0.89
0.85	0.04	0.89
0.86	0.04	0.90
0.87	0.03	0.90
0.88	0.03	0.91
0.89	0.02	0.91
0.90	0.02	0.92
0.91	0.01	0.92
0.92	0.01	0.93
0.93	0.00	0.93

V/C			LOS
0.00	-	0.60	A
0.61	-	0.70	B
0.71	-	0.80	C
0.81	-	0.90	D
0.91	-	1.00	E
1.00+			F

V/C = Volume-to-Capacity Ratio
LOS = Level of Service

The assumed capacities of the most common types of lanes are described below:

Lane Capacities

Designation	Through Capacity	Turn Capacity	
1.0	1,725	1,650	
1.1	1,650	1,650	
2.0	3,450	2,970	(80%
2.1	3,375	2,970	of 2nd
2.2	3,300	-	lane)
3.0	5,175	4,290	(80%
3.1	5,100	4,290	each of
3.3	5,550	-	2nd & 3rd lane)
4.0	6,900	-	
4.1	6,825	-	

SUMMARY OF LEVELS OF SERVICE FOR INTERSECTIONS

Level of Service	Type of Flow	Delay	Maneuverability	V/C Ra
A	Stable Flow	Very slight or no delay. If signalized, conditions are such that no approach phase is fully utilized by traffic and no vehicle waits longer than one red indication.	Turning movements are easily made, and nearly all drivers find freedom of operation.	0.00-0.60
B	Stable Flow	Slight delay. If signalized, an occasional approach phase is fully utilized.	Vehicle platoons are formed. Many drivers begin to feel somewhat restricted within groups of vehicles.	0.61-0.70
C	Stable Flow	Acceptable delay. If signalized, a few drivers arriving at the end of a queue may occasionally have to wait through one signal cycle.	Back-ups may develop behind turning vehicles. Most drivers feel somewhat restricted.	0.71-0.80
D	Approaching Unstable Flow	Tolerable delay. Delays may be substantial during short periods, but excessive back-ups do not occur.	Maneuverability is severely limited during short periods due to temporary back-ups.	0.81-0.90
E	Unstable Flow	Intolerable delay. Delay may be great-up to several signal cycles.	There are typically long queues of vehicles waiting upstream of the intersection.	0.91-1.00
F	Forced Flow	Excessive delay.	Jammed conditions. Back-ups from other locations restrict or prevent movement. Volumes may vary widely, depending principally on the downstream back-up conditions.	Varies[1]

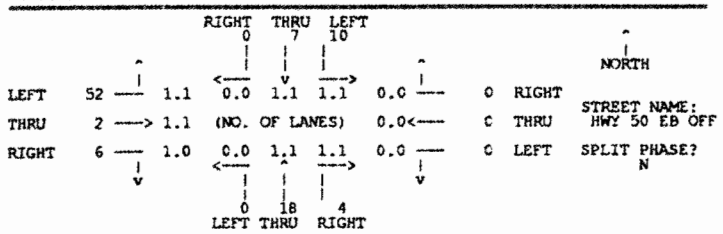
[1] In general, volume-to-capacity ratios cannot be greater than 1.00, unless the lane capacity assumptions are too low. Also, if future demand projections are considered for analytical purposes, a ratio greater than 1.00 might be obtained, indicating that the projected demand would exceed the capacity.

References:
- *Highway Capacity Manual*, Special Report No. 209, Transportation Research Board, 1985.
- *Highway Capacity Manual*, Special Report No. 87, Highway Research Board, 1965.
- TJKM

ATTACHMENT B

TJKM INTERSECTION CAPACITY ANALYSIS 1/20/92

INTERSECTION 4 BASS LAKE RD. and HWY 50 EB OFF EL DORADO CO.
COUNT DATE/TIME: 01/09/92 7:00-9:00 AM PEAK HOUR: 7:30- 8:30AM
CONDITION : EXISTING AM PEAK HOUR FILE ex.vci



STREET NAME: BASS LAKE RD. SPLIT PHASE? N

	MOVEMENT	ORIGINAL VOLUME	ADJUSTED VOLUME*	CAPACITY	V/C RATIO	CRITICAL V/C
NB	RIGHT (R)	4	4	1500	0.0027	
	THRU (T)	18	18	1500	0.0120	
	T + R		22	1500	0.0147	0.0147
SB	THRU (T)	7	7	1500	0.0047	
	LEFT (L)	10	10	1500	0.0067	0.0067
	T + L		17	1500	0.0113	
EB	RIGHT (R)	6	0 *	1500	0.0000	
	THRU (T)	2	2	1500	0.0013	
	LEFT (L)	52	52	1500	0.0347	
	T + L		54	1500	0.0360	0.0360

VOLUME-TO-CAPACITY RATIO FOR THE INTERSECTION: 0.06
ADJUSTMENT FOR LOST YELLOW TIME: 0.10

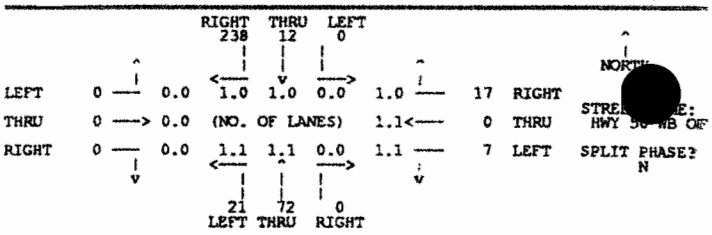
TOTAL VOLUME-TO-CAPACITY RATIO: 0.16
INTERSECTION LEVEL OF SERVICE: A

* ADJUSTED FOR RIGHT TURN ON RED

Developed by TJKM Transportation Consultants, Pleasanton, CA, 1990 NN

TJKM INTERSECTION CAPACITY ANALYSIS 1/20/92

INTERSECTION 5 BASS LAKE RD. and HWY 50 WB OFF EL DORADO CO.
COUNT DATE/TIME: 01/09/92 7:00-9:00 AM PEAK HOUR: 7:45- 8:45AM
CONDITION : EXISTING AM PEAK HOUR FILE ex.vci



STREET NAME: BASS LAKE RD. SPLIT PHASE? N

	MOVEMENT	ORIGINAL VOLUME	ADJUSTED VOLUME*	CAPACITY	V/C RATIO	CRITICAL V/C
NB	THRU (T)	72	72	1500	0.0480	
	LEFT (L)	21	21	1500	0.0140	0.0140
	T + L		93	1500	0.0620	
SB	RIGHT (R)	238	158 *	1500	0.1053	0.1053
	THRU (T)	12	12	1650	0.0073	
WB	RIGHT (R)	17	0 *	1500	0.0000	
	THRU (T)	0	0	1500	0.0000	
	LEFT (L)	7	7	1500	0.0047	0.0047
	T + L		7	1500	0.0047	

VOLUME-TO-CAPACITY RATIO FOR THE INTERSECTION: 0.12
ADJUSTMENT FOR LOST YELLOW TIME: 0.10

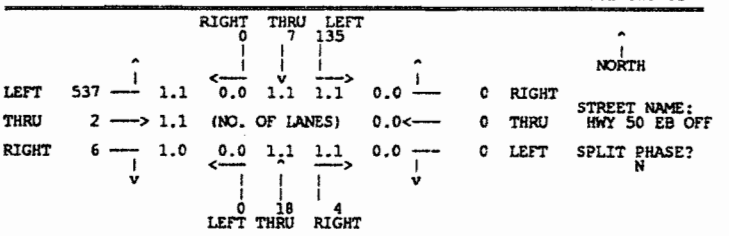
TOTAL VOLUME-TO-CAPACITY RATIO: 0.22
INTERSECTION LEVEL OF SERVICE: A

* ADJUSTED FOR RIGHT TURN ON RED

Developed by TJKM Transportation Consultants, Pleasanton, CA, 1990 NN

TJKM INTERSECTION CAPACITY ANALYSIS 1/20/92

INTERSECTION 4 BASS LAKE RD. and HWY 50 EB OFF EL DORADO CO.
COUNT DATE/TIME: PEAK HOUR: 7:30- 8:30AM
CONDITION : EXISTING AM + PROJECT PEAK HOUR FILE ex.vci



STREET NAME: BASS LAKE RD. SPLIT PHASE? N

	MOVEMENT	ORIGINAL VOLUME	ADJUSTED VOLUME*	CAPACITY	V/C RATIO	CRITICAL V/C
NB	RIGHT (R)	4	4	1500	0.0027	
	THRU (T)	18	18	1500	0.0120	
	T + R		22	1500	0.0147	0.0147
SB	THRU (T)	7	7	1500	0.0047	
	LEFT (L)	135	135	1500	0.0900	0.0900
	T + L		142	1500	0.0947	
EB	RIGHT (R)	6	0 *	1500	0.0000	
	THRU (T)	2	2	1500	0.0013	
	LEFT (L)	537	537	1500	0.3580	
	T + L		539	1500	0.3593	0.3593

VOLUME-TO-CAPACITY RATIO FOR THE INTERSECTION: 0.46
ADJUSTMENT FOR LOST YELLOW TIME: 0.10

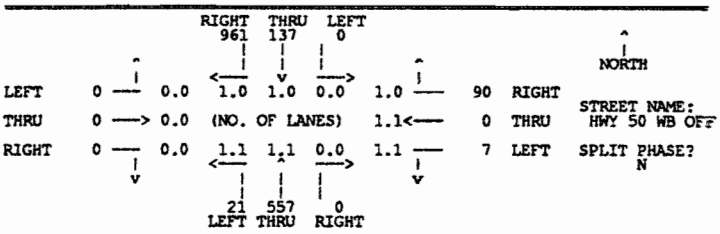
TOTAL VOLUME-TO-CAPACITY RATIO: 0.56
INTERSECTION LEVEL OF SERVICE: A

* ADJUSTED FOR RIGHT TURN ON RED

Developed by TJKM Transportation Consultants, Pleasanton, CA, 1990 NN

TJKM INTERSECTION CAPACITY ANALYSIS 1/20/92

INTERSECTION 5 BASS LAKE RD. and HWY 50 WB OFF EL DORADO CO
COUNT DATE/TIME: PEAK HOUR: 7:45- 8:
CONDITION : EXISTING AM + PROJECT PEAK HOUR FILE ex.vci



STREET NAME: BASS LAKE RD. SPLIT PHASE? N

	MOVEMENT	ORIGINAL VOLUME	ADJUSTED VOLUME*	CAPACITY	V/C RATIO	CRITICAL V/C
NB	THRU (T)	557	557	1500	0.3713	
	LEFT (L)	21	21	1500	0.0140	0.0140
	T + L		578	1500	0.3853	
SB	RIGHT (R)	961	881 *	1500	0.5873	0.5873
	THRU (T)	137	137	1650	0.0830	
WB	RIGHT (R)	90	10 *	1500	0.0067	0.0067
	THRU (T)	0	0	1500	0.0000	
	LEFT (L)	7	7	1500	0.0047	
	T + L		7	1500	0.0047	

VOLUME-TO-CAPACITY RATIO FOR THE INTERSECTION: 0.61
ADJUSTMENT FOR LOST YELLOW TIME: 0.10

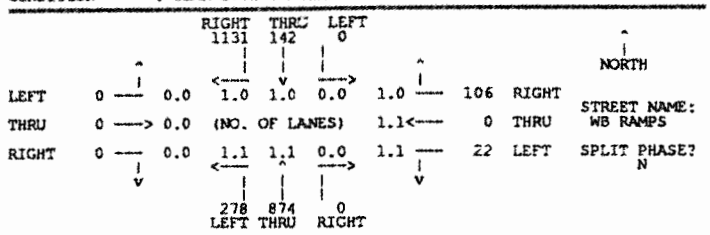
TOTAL VOLUME-TO-CAPACITY RATIO: 0.71
INTERSECTION LEVEL OF SERVICE: C

* ADJUSTED FOR RIGHT TURN ON RED

Developed by TJKM Transportation Consultants, Pleasanton, CA, 1990 NY

TJKM INTERSECTION CAPACITY ANALYSIS 1/20/92

INTERSECTION 471 BASS LAKE RD and WB RAMPS EL DORADO COUNTY
COUNT DATE/TIME: 2001 AM PEAK HOUR:
CONDITION : YEAR 2001 CUMULATIVE AM WITH EX CONFIG FILE 2001EX.V



STREET NAME: BASS LAKE RD SPLIT PHASE? Y

	MOVEMENT	ORIGINAL VOLUME	ADJUSTED VOLUME*	CAPACITY	V/C RATIO	CRITICAL V/C
NB	THRU (T)	874	874	1500	0.5827	
	LEFT (L)	278	278	1500	0.1853	
	T + L		1152	1500	0.7680	0.7680
SB	RIGHT (R)	1131	1051 *	1500	0.7007	0.7007
	THRU (T)	142	142	1650	0.0861	
WB	RIGHT (R)	106	26 *	1500	0.0173	0.0173
	THRU (T)	0	0	1500	0.0000	
	LEFT (L)	22	22	1500	0.0147	
	T + L		22	1500	0.0147	

VOLUME-TO-CAPACITY RATIO FOR THE INTERSECTION: 1.49
ADJUSTMENT FOR LOST YELLOW TIME: 0.00

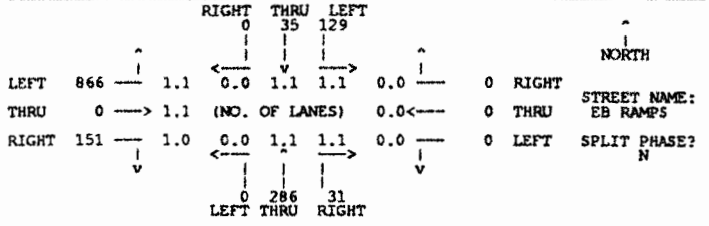
TOTAL VOLUME-TO-CAPACITY RATIO: 1.49
INTERSECTION LEVEL OF SERVICE: F

* ADJUSTED FOR RIGHT TURN ON RED

Developed by TJKM Transportation Consultants, Pleasanton, CA, 1990 YY

TJKM INTERSECTION CAPACITY ANALYSIS 1/20/92

INTERSECTION 472 BASS LAKE RD and EB RAMPS EL DORADO COUNTY
COUNT DATE/TIME: 2001 AM PEAK HOUR:
CONDITION : YEAR 2001 CUMULATIVE AM WITH EX CONFIG FILE 2001EX.V



STREET NAME: BASS LAKE RD SPLIT PHASE? Y

	MOVEMENT	ORIGINAL VOLUME	ADJUSTED VOLUME*	CAPACITY	V/C RATIO	CRITICAL V/C
NB	RIGHT (R)	31	31	1500	0.0207	
	THRU (T)	286	286	1500	0.1907	
	T + R		317	1500	0.2113	0.2113
SB	THRU (T)	35	35	1500	0.0233	
	LEFT (L)	129	129	1500	0.0860	
	T + L		164	1500	0.1093	0.1093
EB	RIGHT (R)	151	71 *	1500	0.0473	
	THRU (T)	0	0	1500	0.0000	
	LEFT (L)	866	866	1500	0.5773	0.5773
	T + L		866	1500	0.5773	

VOLUME-TO-CAPACITY RATIO FOR THE INTERSECTION: 0.90
ADJUSTMENT FOR LOST YELLOW TIME: 0.02

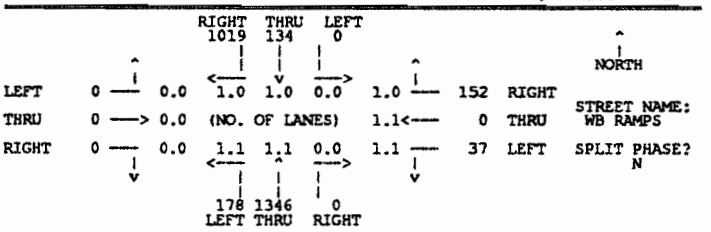
TOTAL VOLUME-TO-CAPACITY RATIO: 0.92
INTERSECTION LEVEL OF SERVICE: E

* ADJUSTED FOR RIGHT TURN ON RED

Developed by TJKM Transportation Consultants, Pleasanton, CA, 1990 YY

TJKM INTERSECTION CAPACITY ANALYSIS 1/20/92

INTERSECTION 471 BASS LAKE RD and WB RAMPS EL DORADO COUNTY
COUNT DATE/TIME: 2001 PM PEAK HOUR:
CONDITION : YEAR 2001 CUMULATIVE PM WITH EX CONFIG] FILE 2001EX.V



STREET NAME: BASS LAKE RD SPLIT PHASE? Y

	MOVEMENT	ORIGINAL VOLUME	ADJUSTED VOLUME*	CAPACITY	V/C RATIO	CRITICAL V/C
NB	THRU (T)	1346	1346	1500	0.8973	
	LEFT (L)	178	178	1500	0.1187	
	T + L		1524	1500	1.0160 **	1.0160
SB	RIGHT (R)	1019	939 *	1500	0.6260	0.6260
	THRU (T)	134	134	1650	0.0812	
WB	RIGHT (R)	152	72 *	1500	0.0480	0.0480
	THRU (T)	0	0	1500	0.0000	
	LEFT (L)	37	37	1500	0.0247	
	T + L		37	1500	0.0247	

VOLUME-TO-CAPACITY RATIO FOR THE INTERSECTION: 1.69
ADJUSTMENT FOR LOST YELLOW TIME: 0.00

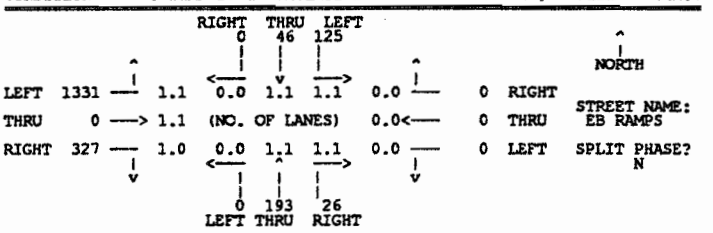
TOTAL VOLUME-TO-CAPACITY RATIO: 1.69
INTERSECTION LEVEL OF SERVICE: F

* ADJUSTED FOR RIGHT TURN ON RED ** APPROACHING OR EXCEEDING CAPACITY

Developed by TJKM Transportation Consultants, Pleasanton, CA, 1990 YY

TJKM INTERSECTION CAPACITY ANALYSIS 1/20/92

INTERSECTION 472 BASS LAKE RD and EB RAMPS EL DORADO COUNTY
COUNT DATE/TIME: 2001 PM PEAK HOUR:
CONDITION : YEAR 2001 CUMULATIVE PM WITH EX CONFIG] FILE 2001EX.V



STREET NAME: BASS LAKE RD SPLIT PHASE? Y

	MOVEMENT	ORIGINAL VOLUME	ADJUSTED VOLUME*	CAPACITY	V/C RATIO	CRITICAL V/C
NB	RIGHT (R)	26	26	1500	0.0173	
	THRU (T)	193	193	1500	0.1287	
	T + R		219	1500	0.1460	0.1460
SB	THRU (T)	46	46	1500	0.0307	
	LEFT (L)	125	125	1500	0.0833	
	T + L		171	1500	0.1140	0.1140
EB	RIGHT (R)	327	247 *	1500	0.1647	
	THRU (T)	0	0	1500	0.0000	
	LEFT (L)	1331	1331	1500	0.8873	0.8873
	T + L		1331	1500	0.8873	

VOLUME-TO-CAPACITY RATIO FOR THE INTERSECTION: 1.15
ADJUSTMENT FOR LOST YELLOW TIME: 0.00

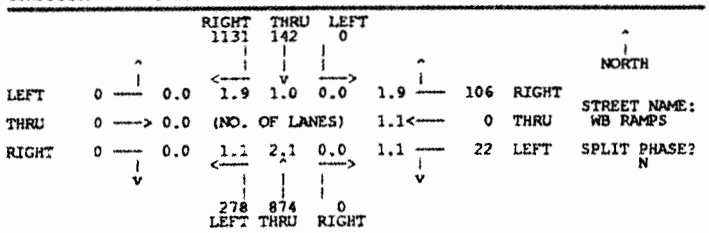
TOTAL VOLUME-TO-CAPACITY RATIO: 1.15
INTERSECTION LEVEL OF SERVICE: F

* ADJUSTED FOR RIGHT TURN ON RED

Developed by TJKM Transportation Consultants, Pleasanton, CA, 1990 YY

TJKM INTERSECTION CAPACITY ANALYSIS 1/20/92

INTERSECTION 471 BASS LAKE RD and WB RAMPS EL DORADO COUNTY
COUNT DATE/TIME: 2001 AM PEAK HOUR:
CONDITION : YEAR 2001 CUMULATIVE AM PEAK HOUR FILE INTERIM.



STREET NAME: BASS LAKE RD SPLIT PHASE? Y

	MOVEMENT	ORIGINAL VOLUME	ADJUSTED VOLUME*	CAPACITY	V/C RATIO	CRITICAL V/C
NB	THRU (T)	874	874	3150	0.2775	
	LEFT (L)	278	278	1500	0.1853	
	T + L		1152	3150	0.3657	0.3657
SB	RIGHT (R)	1131	1131	1650	0.6855	
	THRU (T)	142	142	1650	0.0861	0.0861
WB	RIGHT (R)	106	106	1650	0.0642	
	THRU (T)	0	0	1500	0.0000	
	LEFT (L)	22	22	1500	0.0147	0.0147
	T + L		22	1500	0.0147	

VOLUME-TO-CAPACITY RATIO FOR THE INTERSECTION: 0.47
ADJUSTMENT FOR LOST YELLOW TIME: 0.10

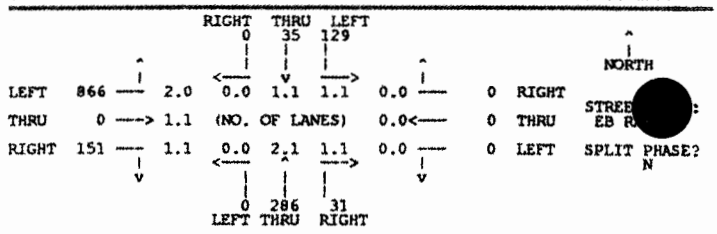
TOTAL VOLUME-TO-CAPACITY RATIO: 0.57
INTERSECTION LEVEL OF SERVICE: A

* ADJUSTED FOR RIGHT TURN ON RED

Developed by TJKM Transportation Consultants, Pleasanton, CA, 1990 NN

TJKM INTERSECTION CAPACITY ANALYSIS 1/20/92

INTERSECTION 472 BASS LAKE RD and EB RAMPS EL DORADO COUNTY
COUNT DATE/TIME: 2001 AM PEAK HOUR:
CONDITION : YEAR 2001 CUMULATIVE AM PEAK HOUR FILE INTERIM.



STREET NAME: BASS LAKE RD SPLIT PHASE? Y

	MOVEMENT	ORIGINAL VOLUME	ADJUSTED VOLUME*	CAPACITY	V/C RATIO	CRITICAL V/C
NB	RIGHT (R)	31	31	1500	0.0207	
	THRU (T)	286	286	3150	0.0908	
	T + R		317	3150	0.1006	0.1006
SB	THRU (T)	35	35	1500	0.0233	
	LEFT (L)	129	129	1500	0.0860	
	T + L		164	1500	0.1093	0.1093
EB	RIGHT (R)	151	151	1500	0.1007	
	THRU (T)	0	0	1500	0.0000	
	LEFT (L)	866	866	2700	0.3207	0.3207
	T + R		151	1500	0.1007	

VOLUME-TO-CAPACITY RATIO FOR THE INTERSECTION: 0.53
ADJUSTMENT FOR LOST YELLOW TIME: 0.10

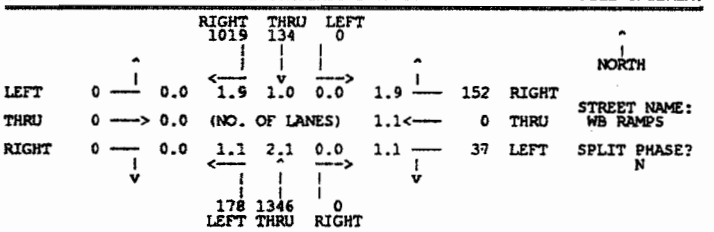
TOTAL VOLUME-TO-CAPACITY RATIO: 0.63
INTERSECTION LEVEL OF SERVICE: B

* ADJUSTED FOR RIGHT TURN ON RED

Developed by TJKM Transportation Consultants, Pleasanton, CA, 1990 YY

TJKM INTERSECTION CAPACITY ANALYSIS 1/20/92

INTERSECTION 471 BASS LAKE RD and WB RAMPS EL DORADO COUNTY
COUNT DATE/TIME: 2001 PM PEAK HOUR:
CONDITION : YEAR 2001 CUMULATIVE PM PEAK FILE INTERIM.



STREET NAME: BASS LAKE RD SPLIT PHASE? Y

	MOVEMENT	ORIGINAL VOLUME	ADJUSTED VOLUME*	CAPACITY	V/C RATIO	CRITICAL V/C
NB	THRU (T)	1346	1346	3150	0.4273	
	LEFT (L)	178	178	1500	0.1187	
	T + L		1524	3150	0.4838	0.4838
SB	RIGHT (R)	1019	1019	1650	0.6176	
	THRU (T)	134	134	1650	0.0812	0.0812
WB	RIGHT (R)	152	152	1650	0.0921	
	THRU (T)	0	0	1500	0.0000	
	LEFT (L)	37	37	1500	0.0247	0.0247
	T + L		37	1500	0.0247	

VOLUME-TO-CAPACITY RATIO FOR THE INTERSECTION: 0.59
ADJUSTMENT FOR LOST YELLOW TIME: 0.10

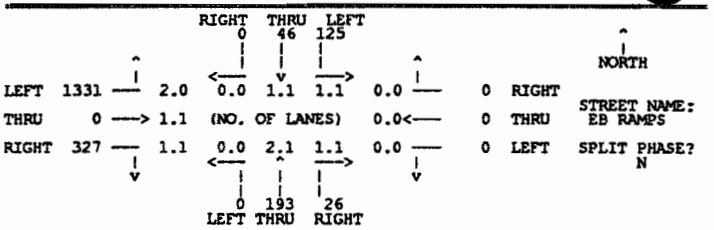
TOTAL VOLUME-TO-CAPACITY RATIO: 0.69
INTERSECTION LEVEL OF SERVICE: B

* ADJUSTED FOR RIGHT TURN ON RED

Developed by TJKM Transportation Consultants, Pleasanton, CA, 1990 NN

TJKM INTERSECTION CAPACITY ANALYSIS 1/20/92

INTERSECTION 472 BASS LAKE RD and EB RAMPS EL DORADO CO
COUNT DATE/TIME: 2001 PM PEAK HOUR:
CONDITION : YEAR 2001 CUMULATIVE PM PEAK FILE I



STREET NAME: BASS LAKE RD SPLIT PHASE? Y

	MOVEMENT	ORIGINAL VOLUME	ADJUSTED VOLUME*	CAPACITY	V/C RATIO	CRITICAL V/C
NB	RIGHT (R)	26	26	1500	0.0173	
	THRU (T)	193	193	3150	0.0613	
	T + R		219	3150	0.0695	0.0695
SB	THRU (T)	46	46	1500	0.0307	
	LEFT (L)	125	125	1500	0.0833	
	T + L		171	1500	0.1140	0.1140
EB	RIGHT (R)	327	327	1500	0.2180	
	THRU (T)	0	0	1500	0.0000	
	LEFT (L)	1331	1331	2700	0.4930	0.4930
	T + R		327	1500	0.2180	

VOLUME-TO-CAPACITY RATIO FOR THE INTERSECTION: 0.68
ADJUSTMENT FOR LOST YELLOW TIME: 0.10

TOTAL VOLUME-TO-CAPACITY RATIO: 0.78
INTERSECTION LEVEL OF SERVICE: C

* ADJUSTED FOR RIGHT TURN ON RED

Developed by TJKM Transportation Consultants, Pleasanton, CA, 1990 YY

ATTACHMENT C

Buildout Assumptions by 2001

PA = Project Area
NPA = Not in Project Area

Zone # (see map)	Single Family Low Density Residential Dwelling Units (0-1 DU/Acre)	Single Family Medium Density Residential Dwelling Units (2-4 DU/Acre)	Single Family High Density Residential Dwelling Units (5-7 DU/Acre)	Multi-Family Residential Dwelling Units (10+ DU/Acre)	Name or Type of Development
13			498		
14			270		
15			136		
20		37	145	= 1268 X .20 = 254 DU } 300	El Dorado Hills Specific Plan } NPA
21		37	145		El Dorado Hills Specific Plan
22			252		El Dorado Hills Specific Plan
24		32	197	= 229 X .20 = 46 DU	El Dorado Hills Specific Plan
59			181		Bell Ranch Subdivision In Project Area
98			506	Recorded Map	El Dorado Hills Specific Plan NPA
101			161		City Lights In Project Area
102			98		Bar-J-Ranch NPA
103			152		Existing
110			426		Oak Knoll Estates In Project Area
110			22		Existing
110			26	10%/yr x 5 = 13	Hollow Oak Subdivision In Project Area
114					Sumer Creek Estates In Project Area
116					Vacant Land Infil (11ac x 2.34 du/ac) In project area
117					Bass Lake Subdivision (pending approval)
118					Bass Lake Subdivision (pending approval)
119					Bass Lake Subdivision (pending approval)
120					Bass Lake Subdivision (pending approval)
121					Bass Lake Subdivision (pending approval)
122					Bass Lake Subdivision (pending approval)
123					Bass Lake Subdivision (pending approval)
124					Bass Lake Subdivision (pending approval)
125					Bass Lake Subdivision (pending approval)
126					Bass Lake Subdivision (pending approval)
127					Bass Lake Subdivision (pending approval)
128					Bass Lake Subdivision (pending approval)
129					Bass Lake Subdivision (pending approval)
130					Bass Lake Subdivision (pending approval)
131					Bass Lake Subdivision (pending approval)
132					Bass Lake Subdivision (pending approval)
133					Bass Lake Subdivision (pending approval)
134			1807	x .30 = 542	Marble Valley Development (Residential Units) NPA
138			58		Cambridge Oaks 1 } NPA
140			108		Cambridge Oaks 2
141			58		Cambridge Oaks 1
142			58		Cambridge Oaks 1
143			108		Cambridge Oaks 2
146			681	10%/yr x 5 = 341	Vacant Land Infil (220ac x 2.34du/ac) + (166ac x 1.0du/ac) PA
147			110		Hawk View Ridge PA
147			70	10%/yr x 5 = 35	Vacant Land Infil (30ac x 2.34 du/ac) PA
147			27		Hawk View Lane PA
148					Existing NPA
149			773		Existing NPA
150			310		Existing NPA
150			54		Rancho Terra Estates
150			257	10%/yr x 5 = 129	Vacant Land Infil (110ac x 2.34 du/ac) NPA
156			325		~~Lakeside Village~~ Bridlewood Canyon NPA
157			392		Bass Lake Village (Not built as of 1/1/92) NPA
157			210	10%/yr x 5 = 105	Vacant Land Infil (90ac x 2.34 du/ac) NPA
157			75	10%/yr x 5 = 38	Vacant Land Infil (31ac x 2.34 du/ac) NPA
158			2		Lakewood
165			70	10%/yr x 5 = 35	Vacant Land Infil (30ac x 2.34 du/ac) NPA
166			105	10%/yr x 5 = 53	Vacant Land Infil (45ac x 2.34 du/ac) NPA
167			41		Woodleigh Hills NPA
167			30		La Ventana Oeste NPA
167			27		Woodleigh Summit NPA

Delete

-467

Project withdrawn Property in Wm. Act until 2000

Approved; not Finaled

In Proj. Area

225

210

Finaled
Finaled

Status Unknown Assume built

- Assume All Proposed Maps in study area built-out
- " " Vacant Infill " " " 50% "

Zone # (see map)	Single Family Low Density Residential Dwelling Units (0-1 DU/Acre)	Single Family Medium Density Residential Dwelling Units (2-4 DU/Acre)	Single Family High Density Residential Dwelling Units (5-7 DU/Acre)	Multi-Family Residential Dwelling Units (10+ DU/Acre)	Name or Type of Development	
167		152	10%/yr x 5 = 76 ✓		Vacant Land Infil (65ac x 2.34 du/ac)	NPA
168		84 ✓			Existing	NPA
168		106 ✓		Finaled	Creekside Estates	NPA
169		252 ✓			Existing	NPA
169			10%/yr x 5 = 113 ✓	225	Vacant Land Infil (15ac x 15.0 du/ac)	NPA
170		91	10%/yr x 5 = 46 ✓		Vacant Land Infil (39ac x 2.34 du/ac)	
170		127 ✓		Approved	Pioneer Place	
171		28	10%/yr x 5 = 14 ✓		Vacant Land Infil (12ac x 2.34 du/ac)	NPA
172		-165 ~~165~~		Dead	~~Larchmont Springfield~~	
173		149 ✓		Pending	Pioneer Place North + Emerald Meadows	
179		245 ✓			Stonehill Subdivision	PA
180		106 ✓			Yowell Properties	PA
181		173	10%/yr x 5 = 87 ✓		Vacant Land Infil (74ac x 2.34 du/ac)	PA
182		105	10%/yr x 5 = 53 ✓		Vacant Land Infil (45ac x 2.34 du/ac)	PA
183		47	10%/yr x 5 = 24 ✓		Vacant Land Infil (20ac x 2.34 du/ac)	PA

Zone # (see map)	Neighborhood Commercial Acres	Highway Commercial Acres	Light Industrial Acres	Office Acres	Name or Type of Development
115	-10 ~~10~~		Willy Act + 11 2000		~~Barr Lake Subdivision (pending approval)~~
148	5 ✓	5 ✓	15 ✓	10 ✓	Existing
174	5 ✓				Vacant Land Infil - 75% buildout
175	10				El Dorado Hills Specific Plan
176	12				El Dorado Hills Specific Plan
177	20	20% x 45 = 9 ✓			El Dorado Hills Specific Plan
178	3				El Dorado Hills Specific Plan
184	13	30% = 4 ✓			Marble Valley Development (Commercial)

Zone # (see map)	School	Name or Type of Development
11	5 ✓	Existing
111	20 ✓	Existing

APPENDIX E:

ARCHAEOLOGICAL RECONNAISSANCE OF THE BASS LAKE STUDY AREA SEWER LINE ALTERNATIVES

AN ARCHAEOLOGICAL RECONNAISSANCE OF THE BASS LAKE DEVELOPMENT AREA SEWER TRUNK ALTERNATIVES EL DORADO COUNTY, CALIFORNIA

by

Daniel G. Foster

John W. Foster

of

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for

R.C. Fuller Associates
5908 Fair Oaks Boulevard
Carmichael, California 95608

January 22, 1992

AN ARCHAEOLOGICAL RECONNAISSANCE OF THE BASS LAKE DEVELOPMENT AREA SEWER TRUNK ALTERNATIVES EL DORADO COUNTY, CALIFORNIA

Daniel G. Foster

John W. Foster

INTRODUCTION

The firm of Foothill Archaeological Services was retained by R.C. Fuller Associates of Carmichael, California to perform an archaeological reconnaissance and evaluation of the Bass Lake Development Area sewer trunk line alternatives in El Dorado County, California. A complete records search was conducted, a field survey performed, and cultural resources were located on the subject property. This report details the methods and results of the study. Management recommendations are presented concerning cultural resources within the alternate sewer alignments.

The scope of work for this project was recommended in an on site meeting with the County of El Dorado. It determined that the consultant archaeologist would:

1. Research records at the North Central Information Center of the California Archaeological Inventory at California State University, Sacramento to identify previously recorded sites and surveys;

2. Conduct an intensive field survey on foot with a team of experienced archaeologists;

3. Pursuant to state-wide standards, plot sites located during the survey on the appropriate U.S. Geological Survey and contour maps;

4. Prepare a record and sketch map of each site locating historic features; and

5. Evaluate previously identified sites within the project boundaries, if any, and re-record them, if necessary. It was specifically requested that an evaluation of the historic features along Carson Creek including the historic route of Highway 50 be done as part of this project evaluation.

This work has been accomplished, and additional archaeological features have been recorded along the proposed alternate sewer alignments. Recommendations concerning them are included in this report.

PROJECT LOCATION AND DESCRIPTION

The Bass Lake Development Area is located immediately north of U.S. Highway 50 some 4.3 miles west the community of Shingle Springs, California. The growing residential community of El Dorado Hills is 1.5 miles to the west. The project area is situated in T. 9N and 10N, in R. 8E and 9E, on the USGS 7.5 minute Quadrangle Clarksville, CALIF. 1953 (1980). Portions of Sections 1, 6 and 7 are included within the specific study area encompassed by this report

There are two alternative sewer line alignments being considered to service the Bass Lake Development Area. Both encompass a rectangular area in Section 6 and follow the current alignment of Bass Lake Road south to its confluence with "Old Bass Lake Road." They then proceed along that alignment to a point in the SE quarter of Section 1. One alignment continues from that point along the old highway south to a junction with Tong Road (a frontage road for Highway 50) and west to join the main sewer line along Silva Valley Road. This route is marked **A-B-D** on Figure 1.

The other alternative follows the same course to Point B, and then traces an historic toll road through the Carson Creek canyon, crosses the drainage, and takes a westerly course through the southern half of Section 1 to link with the sewer main along Silva Valley Road. This alternative is marked **A-B-C** on Figure 1.

The purpose of this study is to examine the potential impacts on cultural resources from both alternative routes and provide recommendations concerning cultural resource protection and mitigation.

ENVIRONMENTAL SETTING

The project area falls within what Storer and Usinger (1963:26) define as the Great Central Valley or Lower Sonoran Life Zone. The project is situated in an area of gentle rolling hills separated by shallow intermittent drainages. Numerous springs provide a seasonal flow where they emanate from the base of low hills.

Elevation along the alternative sewer alignments range from a low of 760 feet along the western boundary to a high of approximately 1180 feet at the northernmost section of Bass Lake Road. The alignments generally follow contour grade along established roads. Occasionally they trace the base of hillsides punctuated by granite and granodiorite boulders that outcrop in clusters. Many of these are vertically oriented, leaving minimal horizontal rock area exposed above the soil level.

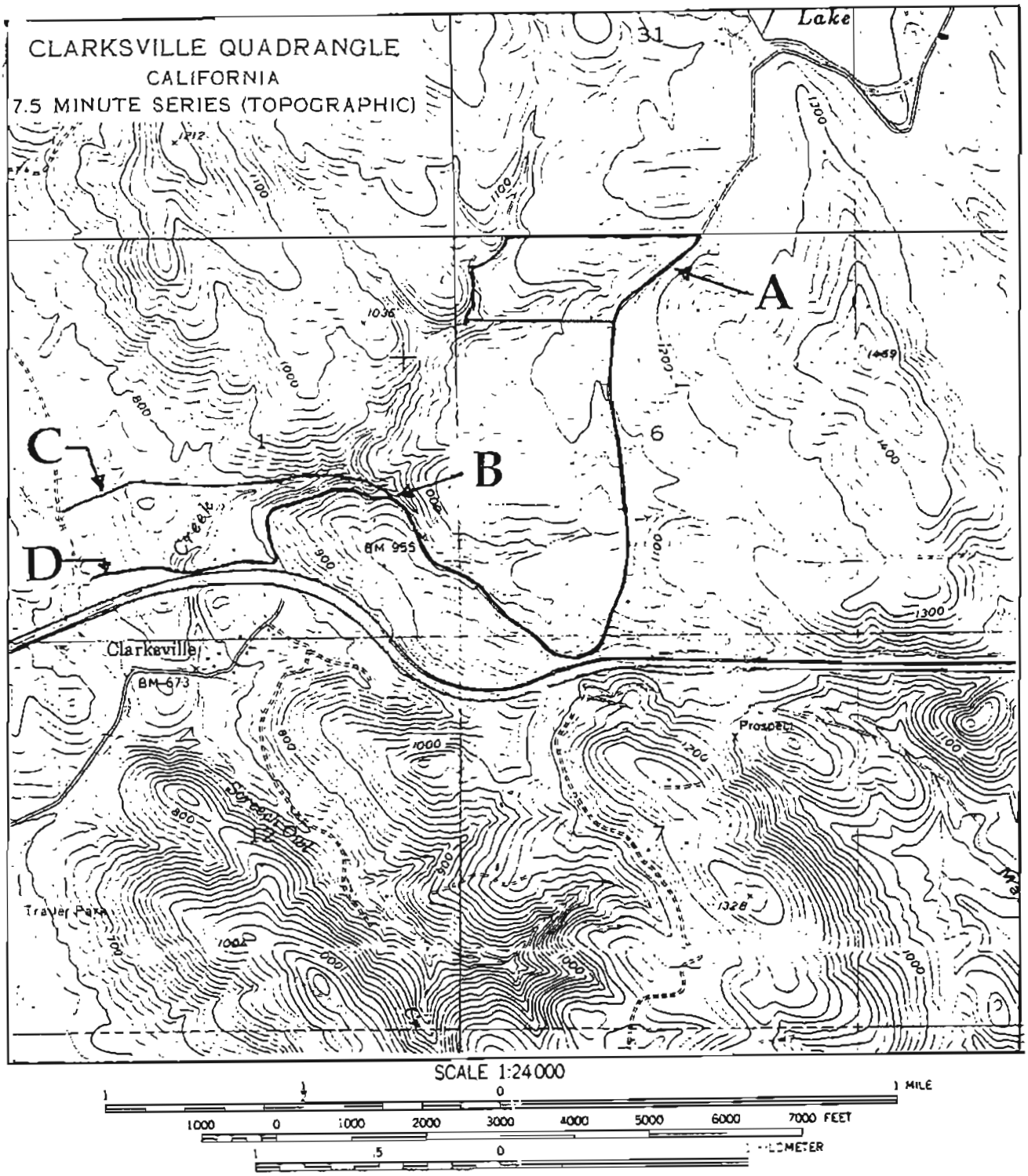


Figure 1. Bass Lake Development Area Sewer Project
Project Location
Alternative Alignments A-B-C and A-B-D

Red clay soils dominate the area. They are shallow, poorly developed, and fine grained. At lower elevations they are replaced by granitic sand. Erosion is minimal throughout the area. Cattle and horse ranching are the major land uses at present.

Vegetation of the Bass Lake Development Area is typical for El Dorado county at low elevations. Dominant trees include the valley oak (*Quercus lobata*) and scrub oak (*Q. dumosa*). Statuesque digger pines (*Pinus sabiniana*) are also present, along with numerous buckeyes (*Aesculus californica*). Scattered understory vegetation is composed of poison oak (*Rhus diversiloba*), buck brush (*Ceanothus cuneatus*), manzanita (*Arctostaphylos manzanita*), Yerba Santa (*Eriodictyon californicum*) and chamise (*Adenostoma fasciculatum*). Annual grasses dominate the open hills. Thistles of various types dominate the open disturbed areas.

The major stream through the area is Carson Creek. It flows in a NE to SW direction and is fed by many short tributaries and springs at the base of the hills. In Section 1, the creek passes through a narrow canyon with deep rocky pools and lush riparian vegetation. This area has been the site of considerable mining, ranching and farming activity since Gold Rush times.

CULTURAL HISTORY

Prehistoric Period

The Bass Lake Development Area area falls within the region occupied by hill Nisenan at the time of Euro-american contact although their Miwok neighbors occupied villages only a short distance away. The term Nisenan ("of us" or "from our side") is applied to the southern Maidu Indians who made their home in the drainages of the American, Yuba and Bear Rivers, and the lower reaches of the Feather River (Wilson and Towne 1978:387). They have been subdivided into hill and valley groups who spoke a mutually intelligible Penutian dialect.

Nisenan population in pre-contact times is thought to have numbered about 9,000 (Kroeber 1925). Political organization was based on "triblet" groups who centered around collective ownership and use of a territory. Formal food gathering quests were based on seasonal ripening and the intimate knowledge of resources near their villages. The Nisenan did not depend on one crop. They gathered staples all year, and shifted procurement strategies when abundance varied from year to year. Hunting, gathering and fishing activities were intensified in the late summer and early fall. It was then that whole families or villages would go to gather acorns. Black oaks were especially prized for their crop. Young men would occupy themselves hunting while women and children would gather the nuts dislodged from branches by old men using long willow poles specifically cut for this purpose. When the crop was especially abundant, acorns were stockpiled in large granaries.

Sometimes they were traded for pine nuts or other prized foods. It is said that the grass under oak trees was burned to make acorns easier to gather (Wilson 1982:7).

Digger and sugar pine nuts were also highly prized. They formed a dietary complement to acorns because of their relatively high protein content. Buckeyes, which require careful leaching, were used as an emergency food source when the acorn crop was poor. They were also a powerful medicine (Johnson and Theodoratus 1978:366).

Game was abundant in Nisenan territory. Roasting, baking and drying were all used when the hunt was successful. Several villages might collaborate in a deer or rabbit hunt, with the best marksmen doing the killing with bow and arrows. A circle of fire was used to drive the prey to a central area, often a rocky hilltop, where the hunters would be waiting. A group "captain" would divide the results. A wide variety of animals were hunted. In fact, only the grizzly bear, dog, wolf, coyote, buzzard, eagle and pileated woodpecker were not considered edible (Beals 1933:346).

Fishing was important in the drainages of Nisenan territory. Salmon were netted and speared in season from favored fishing locations that might be owned by the group. Dip nets and weirs were also used. Lamprey eels were gathered when moving upstream to spawn. Where they used their sucker mouths to ascend rocky stretches, they were easily captured. Trout and suckers were taken with soaproot poison or driven into the shallows to be captured by hand. Large quantities of freshwater mussels were also harvested.

The Nisenan built two types of permanent structures, the dwelling (hu) and the dance house (kum). While valley people tended to build earth covered houses, in the foothills, the cedar bark house and lean to were reported more common. These were water tight and comfortable and could be covered with deer skins as well as bark slabs. Temporary use was made of pine bough shelters when groups were hunting of traveling away from the village.

The round house or dance house was an important ceremonial center for Nisenan people. It was used for meetings, dances and ceremonials. It ranged in size from 35 to 90 feet and was excavated several feet into the earth. Forked oak posts formed the center supports. Two or four might be used, depending on the size, around a central fire pit. Young pine or buckeye poles served as rafters. The whole structure was then covered with bark, grass and earth. While Beals reports no particular orientation, others insist the doorway always faced west (Johnson and Theodoratus 1978:371).

Major Nisenan settlements were concentrated along the larger streams where village sites often occupied low hills with a southern exposure. A clear view of the surrounding countryside was an important consideration in site selection. Typically, four to twelve family dwellings measuring ten to twelve feet in diameter would constitute a village. Sweathouses were also prominent. They were formed from

poles and deer skins, and very important for medicinal and cleansing. A large dance house and numerous acorn granaries might also be present.

While food technology and seasonal round are well established for the Nisenan from ethnographic accounts, place and village names are poorly known and plagued by contradictory accounts. There is no question that the Nisenan "had names for every mountain and small hill, every flat, valley, and canyon, every spring and creek, and every noteworthy location on the large rivers" (Littlejohn 1928:25). From Littlejohn's work and that of Wilson and Towne (1978), the following Nisenan information on the Bass Lake Development Area is reported:

Ba mom -- This was a major village, located at what is now called Shingle Springs (probably recorded as CA-ELD-131). It is said to lie between the head of two small creeks -- Shingle Creek and Sawmill Creek at an elevation of 1,500 feet. These flow into French Creek which, in turn, flows into the Cosumnes River through Big Canyon Creek. This settlement was large with a head man and kum. The name means "salt water."

Yo hi mu -- Small village near Ba mom.

Tu lul -- Small village near Ba mom.

Chi tok pa kan -- A large settlement about five miles south of Ba mom, on French Creek or Big Canyon Creek at an elevation of 1,000 feet. It had a head man and kum.

Po lun kit -- Near the present settlement of Clarksville, about eight miles west of Ba mom, on a tiny affluent of the main stream of the American River. Elevation reported at 900 feet. This settlement had a head man and kum. Note: this site has not been identified archaeologically. It probably was situated along the the terraces above Carson Creek.

O ko pa kan -- A small settlement near a spring on a rocky hillside on the north side of the South Fork of the American River.

Other settlements were noted in the vicinity, according to Littlejohn (1928:31):

> Charlie Padilla said that there were other large settlements near Shingle Springs and El Dorado but that he was unable to remember the names of them. These included a large village at El Dorado (Mud Springs), one at West Logtown on Logtown Ravine, about four miles south of El Dorado, elevation 1,900 feet, and another at Gilmore's Spring (probably at the head of Gilmore Creek), now called Ashberry Homestead, southwest of El Dorado - "some kind of pa kan." There was also a big camp on the Placerville Road near the Mother Lode Highway, but there was not sufficient water for the people, even though it had two or three springs.

Nisenan social organization was village based with kinship relationships being of paramount importance. Leadership was provided by a headman or "captain" who organized ceremonial functions and coordinated group hunting efforts. Leadership was by acclamation -- when the group lost faith in a "captain," a new one would be chosen. A highly regarded man or woman might fulfil this role.

A typical Nisenan group would control a defined geographic area that might encompass 100 square miles. Relations were generally friendly, but disputes would sometimes occur over trespass, hunting rights, sorcery or ceremonial obligations. The Nisenan-Miwok boundary in the Shingle Springs area is reported to have seen considerable conflict in historic times.

Traditional Nisenan society is well described in Beals (1933), Kroeber (1925), Faye (1923), Wilson and Towne (1978) and (1982), Wilson (1982) and Littlejohn (1928).

Historic Period

Following the discovery of gold in 1848, thousands of gold seekers flooded into the hills above the Sacramento Valley to seek their fortune. One of the significant early mining establishments was Clarksville, located about six miles east of Folsom. It was originally known as "Clarkson's" or "Clarkson Town," and developed productive mining operations along Carson Creek and the surrounding hills. By 1887 a five stamp mill was operational, and drag-line dredging was being carried out as late as 1923 (Gudde and Gudde 1975:74; Clark 1979).

Clarksville might have been just another mining camp except that it lay at the junction of major routes to the gold fields and surrounding ranches. One is the Carson Emigrant Road, which basically follows the original route of Highway 50 through the Shingle Springs area to Clarksville. (In our project area it follows the same alignment as the Giles or Mormon Hill Toll Road, recorded as ELD-721-H.) This was a main route to the gold fields in 1849, having been pioneered by Kit Carson himself in 1844. It crossed the Sierra Nevada at 9,000 feet and proceeded northwest into the Sacramento Valley. The trail clung to the divide separating the Cosumnes River and the South Fork of the American River. Important camps along the route include Tragedy Springs, Leek Spring, Camp Springs, Sly Park, Pleasant Valley, Diamond Springs, Mud Springs (El Dorado), Shingle Springs, Clarksville, and White Rock Springs (Hoover, Rensch and Rensch 1966:76).

At Clarksville, a major junction developed for freighting and supply routes. One branch of the Placerville Road led to Folsom and on to Auburn to serve the river bar mining camps on the North Fork of the American River (Hoover, Rensch and Rensch 1966:76). This followed the present alignment of Silva Valley Road. Another important artery was the Coloma Road, connecting Sacramento with

Folsom and then on to Coloma (Hoover, Rensch and Rensch 1966:76). Green Valley Road follows this route today.

The "Sacramento to Placerville Road," which appears on the first GLO Plat map from 1855, shows an eastward route from "Clarkson's Village" through the canyon of Carson Creek and on to Placerville. The remains of this road can be found today within this project area. A section of it came to be known as the Giles or Mormon Hill Toll Road. Figure 2 shows historic roads in the Clarksville vicinity.

A description and evaluation of the Placerville Road in 1863 is provided by William H. Brewer, who traveled throughout California in the early 1860's. He notes that this "grand artery of travel" between the Sierra and Washoe territories carried a steady traffic of five thousand teams yearly. A typical wagon carried from three to eight tons and was pulled by horse or mule teams of six, eight or ten. He further notes:

> This great road deserves some notice. It cost an immense sum, perhaps near half a million, possibly more. A history of this road would make a good California story. First an Indian trail, then an old emigrant road crossed the mountains; when, seeing its importance, the state and two counties, by acts of legislature and appropriations, at a cost of over $100,000 (I think), made a free road over on this general line. But the engineers, honest men, had neither the time or means given them to do their part of the work well -- as a consequence, it was not laid out in the best way. The mines of Washoe were discovered, and an immense tide of travel turned over the road. Men got franchises to "improve" portions of the road and collect tolls for their renumeration. Grades were made easier, bridges built, the road widened at the expense of private companies, who thus got control of the whole route. In other words, the state built a road that these companies could transport their materials free over to build their toll road. Now, the tolls on a six mule team and loaded wagon over the road amount to thirty-two dollars, or thirty-six dollars, I am not certain which sum, and it had paid immensely. In some places the profits during a single year would twice pay the expenses of building, repairs, and collection of tolls! (Farquhar 1974:439,440).

Clarksville is reported to have a population of several hundred during the decade following the gold discovery. Four overnight resorts were established to serve the needs of travelers. The Railroad House, located in the upper part of town; the Mormon Tavern, on the stagecoach road west of town; the Unbrella House and Alex Richmond's Hotel, on the Placerville Road by way of Mill's Station and White Rock Springs. The Mormon Tavern was probably the most prominent. It was constructed in 1849 and enlarged and operated by Franklin Winchell in 1851. It served as a remount station for the Central Overland Pony Express, and on April 4,

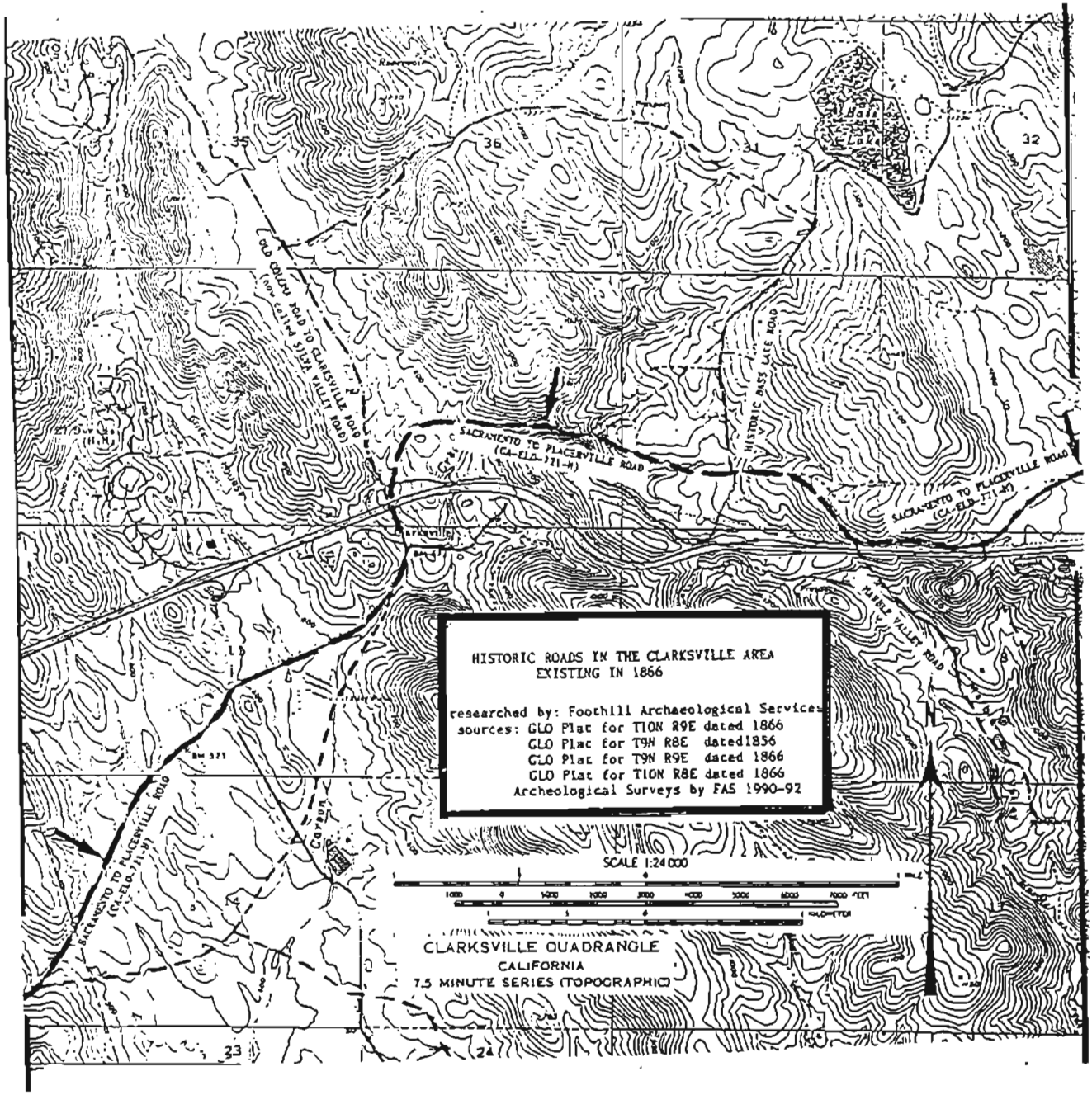


Figure 2. Bass Lake Development Area Sewer Project
Historic Road Alignments in the Clarksville Vicinity.

1860, pony express rider Sam Hamilton changed horses there on the first eastbound trip (Resources Agency 1990).

In 1874 the Clarksville Grange was established. Among the founding members were Joseph Joerger, Albert and Rebecca Kyburz, A. Morrison and George Fitch (Wilson n.d.:13). Among the other prominent early citizens of Clarksville was the John H. Tong family. They settled in town in 1857, and the elder Mr. Tong became the proprietor of the Railroad House. The Tongs established a toll road to the mines that has since been obliterated by Highway 50 (Peak 1987:20).

In 1865, the Sacramento Valley Railroad was extended from Latrobe to Shingle Srings, bypassing Clarksville. The overland freighting business suffered a further crippling blow when the Central Pacific Railroad line was completed from Sacramento via Auburn in 1867, diverting much of the remaining traffic from the Placerville Road (Hoover, Rensch and Rensch 1966:83). Clarksville settled into a peaceful retirement as a regional service center, and was subsequently bypassed when the modern route of Highway 50 was taken in 1939.

PRE-FIELD INVESTIGATIONS

A complete records search for the project area was performed for the authors by the North Central Information Center of the California Archaeological Inventory. All official site maps and archives were consulted as were the standard published references -- National Register of Historic Places (1990 and updates), California Inventory of Historic Resources (1976), California Historical Landmarks (1990 plus updates), Gold Districts of California (1979), California Gold Camps (1975), California Place Names (1969) and Historic Spots in California (1966).

Prehistoric sites in the project vicinity consist mainly of bedrock milling stations and small camps. They are commonly found along the drainages where water and granite outcrops occur. The deposits sometimes contain a dark midden soil with living refuse and artifacts. Housepits clustered together are known from several sites.

Two major concentrations of historical resources have been documented within the Bass Lake Development Area sewer alignments. One is CA-ELD-600-H, a complex of foundations, rock walls, ditches, roads and terraces along Carson Creek. This is an extension of the community of Clarksville, and reflects the mining, ranching and farming carried our in the region. Another recorded site is CA-ELD-558-H, a historic homestead including a house foundation, gardens and a "shrine." Numerous archaeological and historic sites have been documented in surveys of the surrounding lands. Within a half mile radius are at least 9 prehistoric sites and 22 historic sites and features.

Several cultural resource studies have been carried out for the Clarksville area. The most extensive is Peak's 1987a report on archaeological and historical resources of the El Dorado Hills properties. Other important information is contained in Peak (1990), and (1987b).

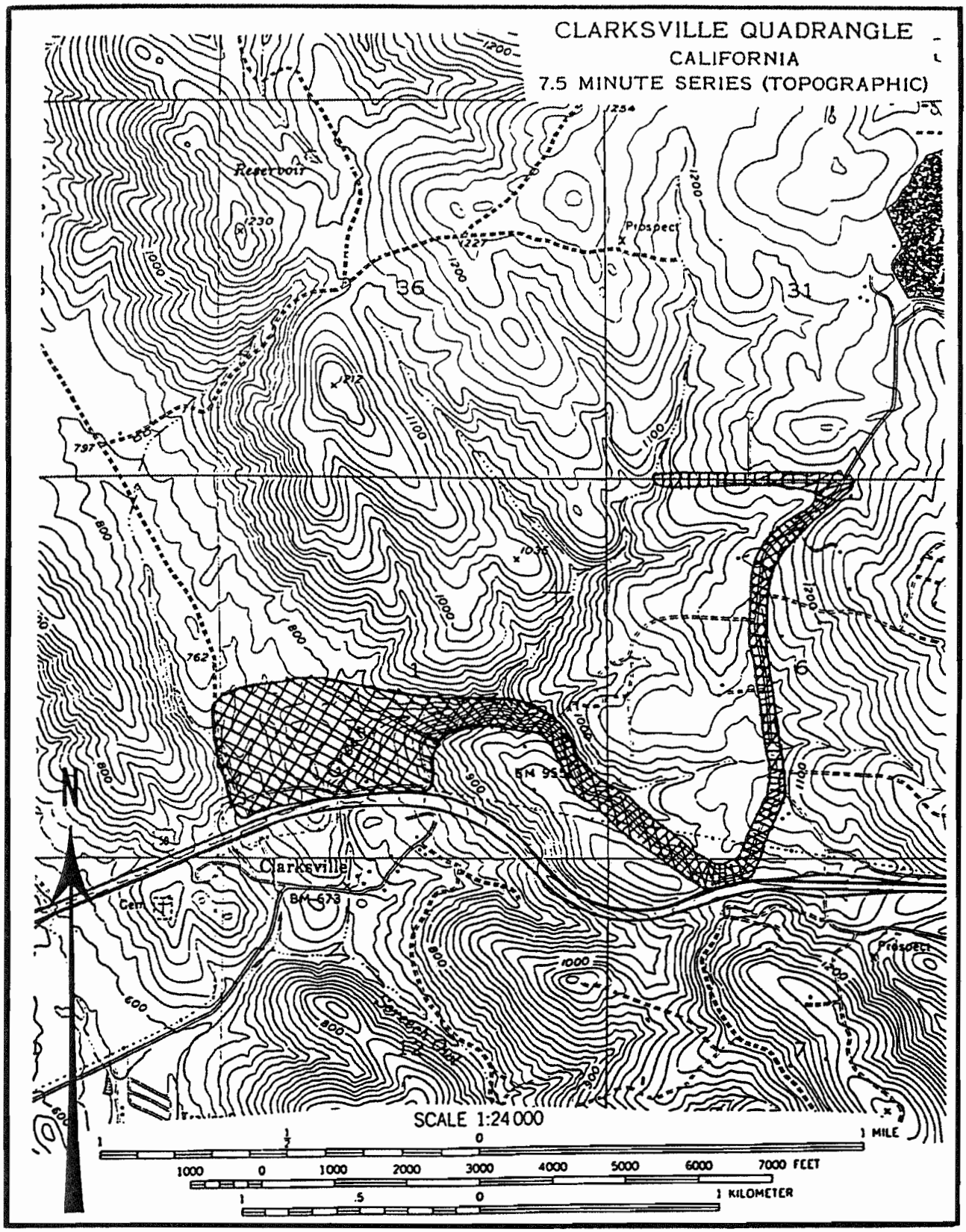
SURVEY METHODS

The Bass Lake Development Area sewer trunk alternatives were closely inspected on foot by the authors in December, 1991 and January, 1992. Standard archaeological methods were employed. The alternate alignments were walked in a regular pattern. Along existing roadways, a margin of at least 30m on either side of the road was also inspected to insure an adequate corridor for installation of the line. Where the alignment crossed into known site areas CA-ELD-600-H and CA-ELD-558-H, a more extensive coverage was attained to determine the probable impacts from sewer line development. Survey coverage area for this study is shown in Figure 3. The alignment in the NW quarter of Section 6 was previously surveyed by the authors for the Bass Lake Road study (Foster and Foster 1990).

All evidence of prehistoric and historic activity was sought after in the field survey. This included midden soils, bedrock mortars and milling surfaces, flaked stone tools and tool debris, ground stone tools, fire-affected rock, housepits, petroglyphs and rock alignments. Historic evidence such as foundations, mine tailings, structures, dumps, pits, ditches, mounds, cemeteries, exotic vegetation, rock walls and artifacts concentrations within reasonable proximity to the possible sewer line were subject to inquiry.

When sites or features were discovered, they were recorded on standard archaeological forms, plotted on the USGS quadrangle and photographed. Where midden soil was observed or suspected, a trowel was used to expose subsurface levels for identification. All bedrock mortars within the project area were mapped and measured after being swept clean of vegetation and debris. Artifacts were noted and identified, but not collected for the purposes of this study. All site boundaries were carefully established on the basis of surface evidence by measuring distances and directions from local topographic features. Field notes were kept on all observations and resource evaluations. They are on file at Foothill Archaeological Services.

Navigation was not a problem during the survey. Roads, fencelines, structures, ditches, and transmission lines form recognizable landmarks within the project area. Much of the alignment was walked in the field with project engineers and County planners to closely mark its location. Previous survey maps and historic plats also aided in locating cultural resources with respect to a sewer line corridor.



= complete archeological survey coverage

FIGURE 3
BASS LAKE DEVELOPMENT AREA
SEWER ALTERNATIVES

AREA SURVEYED BY FAS 12/91 - 1/92

SURVEY RESULTS

A total of two unrecorded historic sites were documented during the survey In addition, considerable time was spent mapping, evaluating and supplementing information on three existing sites, which are within the alignments encompassed by this project. Cultural resource locations are shown on Figure 4. They are briefly described below. Considerably more complete detail on this highly complex pattern of cultural resources is provided in the site records and site maps attached in Appendix A. A thorough archival documentation has been prepared by Peak (1987a and 1990). The reader is referred to these reports for details concerning ownership and chronology.

CA-ELD-721-H -- This is a segment of the "Sacramento to Placerville Road," first recorded by Foster and Foster (1990) as part of the Bass Lake Road study. It is documented on the GLO Plat for 1856, and is the only road shown in the earliest surveys. The segment of road through the Carson Creek canyon was also known as the "Giles or Mormon Hill Toll Road."

The road extends north from Clarksville and bends to the east around a low hill in the SE quarter of Section 1, where it takes an easterly course through the canyon of Carson Creek. Is crosses the stream midway through the canyon (the bridge no longer exists) and continues to the east across Bass Lake Road on the alignment now followed by Country Club Drive.

This road can be clearly seen within the project area. Rock retaining walls, stacked as high as 18 feet in some places, stabilize the roadway through the narrow canyon. The route is well engineered and was heavily used. It measures 10 to 12 feet in width. All boulders have been removed from the roadbed and rock outcrops on the uphill side have been blasted to clear a wide path.

CA-ELD-558-H -- This site consists of the ruins of a ranch with concrete pillars, foundations and an elaborate garden covering an estimated 90 by 65 m area. It was recorded by Peak and Associates in 1987. A peculiar rock-faced "shrine" is located within the ranch compound. It measures about 13 feet high and features a concrete pool at the foot of its western side. A series of wells, rock piles and road segments surround the main compound. The site is situated immediately east of Silva Valley Road in the SE quarter of Section 1.

Peak's archival research showed it to be the remains of the Albert Fitch home, dating to the 1891-1900 period. Fitch is said to have been an eccentric gardener who planted many exotic trees and collected rocks from the surrounding hills. The site reveals many curious objects and demonstrates considerable effort to provide water for his garden.

CA-ELD-600-H -- This is an extremely complex series of historical features extending north from Clarksville along Carson Creek and its major tributaries. Some of the documented features probably represent an extension of the town of Clarksville in more prosperous times. The site was originally recorded by Peak and Associates in 1987, and includes rock structures, platforms, a mill site, rock walls and corrals, a collapsed barn, an adit, prehistoric bedrock mortars, check dams and historic roads. Some of the small rock structures with standing walls probably date to the gold rush period, although Peak's test excavations were not conclusive as to this point (1990:3). The Sacramento to Placerville Road (ELD-721-H) passes through the site.

The present study located and mapped 24 historic and archaeological features within the recorded site that could be affected by construction of a sewer line corridor through the area. These have been carefully examined and described in an extensive site record supplement prepared for this report (Appendix A). The site boundaries of this enormous complex have been expanded to incorporate features located within the proposed sewer line corridor. The site complex extends beyond our project area in the tributaries of Carson Creek.

This site is unquestionably significant for the area. It represents some of the best preserved remains of the mining, ranching and dairying activities surrounding Clarksville, as well as the well-preserved segment of historic road dating to 1856.

Old Coloma Road to Clarksville Road -- This is a historic roadbed that was a branch of the Carson Emigrant Road. Silva Valley Road is its present name. In the 1850's it connected Clarksville with Folsom and the American River by way of the Coloma Road Within our project area, a small segment of the original road, including a stacked rock retaining wall, is visible.

Silva Valley Road is being improved to serve the growing developments of El Dorado Hills, and the historic road is being documented by this report in anticipation of future improvements which will erase most of the historic roadbed.

Historic Bass Lake Road -- This is a historic route also known as "Old Highway 50" that can be seen on the GLO Plat dated 1866. It has been converted to a modern highway, and is recorded here for the purposes of documentation. Although the route bends around hills, instead of cutting through them as modern routes are designed to do, nothing is visible of the historic roadbed itself.

MANAGEMENT RECOMMENDATIONS

The Bass Lake Development Area sewer trunk line alternatives pass through an area highly sensitive for cultural resources. The alignment from Point A to Point B

(Figure 1) is not of concern. The line will be installed adjacent to Historic Bass Lake Road, which has been converted to a modern roadway. Point B, however, marks the approximated boundary of CA-ELD-600-H, and the two alternative sewer line routes to the main line along Silva Valley Road are the focus of the following discussion.

Alignment B-C would involve the placement of a sewer line in the historic roadbed of the Sacramento to Placerville Road. This would involve the excavation of a trench some 2 feet wide and at least 3 feet deep along Carson Creek in the roadbed and adjacent to numerous historic features recorded in CA-ELD-600-H. A bridge would be necessary to replace the historic crossing, and access for the purpose of maintenance would be provided along the historic route.

Alignment B-D would follow the alignment of Old Highway 50 on a grade around the commanding hill in the SE quarter of Section 1. It would follow Tong Road to Silva Valley Road. The line itself would be installed in the shoulder on the uphill side of the existing roadbed. It would cross Carson Creek on the existing route along Tong Road.

It is recommended that Alignment B-D be selected in order to minimize disturbance to cultural resources along Carson Creek. The authors recognize that certain preservation advantages would be afforded by a public easement through the Carson Creek canyon. The visible remains of Gold Rush and early 20th Century enterprise along this alignment would be a great attraction to the public. The riparian corridor is important wildlife habitat, and public access for pedestrian or equestrian use would be an excellent use of the property.

The excavation of a sewer line through this sensitive area, however, may disturb archaeological deposits and historic features dating to the 1850's. CA-ELD-600-H has yet to fully give up its secrets to archaeologists and historians. But the site is so complex and extensive, it seems an unwarranted risk when there is an alternative that would involve no disturbance at all to cultural resources. Future development of the Carson Creek area will hopefully provide for considerably more analysis of the historic features and archaeological deposits contained within the boundaries of CA-ELD-600-H.

The historic Sacramento to Placerville Road should be preserved in future land-use decisions governing development of this property. This segment of the road is one of the best preserved traces of Gold Rush traffic in the area. It is too valuable to risk disturbing with a sewer trench, which, even if carefully installed, may alter the historic appearance along its route and disturb buried deposits it may contain.

No impacts to significant historic or archaeological values are expected from development of a sewer line along the Old Bass Lake Road and Tong Road alignment. If, in the course of construction, any archaeological resources are exposed, a qualified archaeologist should be consulted to make an evaluation of the

finds and recommendations on how to proceed. There are many known resources in the Clarksville area, and it is possible that archaeological values could lie unseen beneath the surface adjacent to the roadway. If uncovered, they would be a valuable legacy of the ancient history of El Dorado county.

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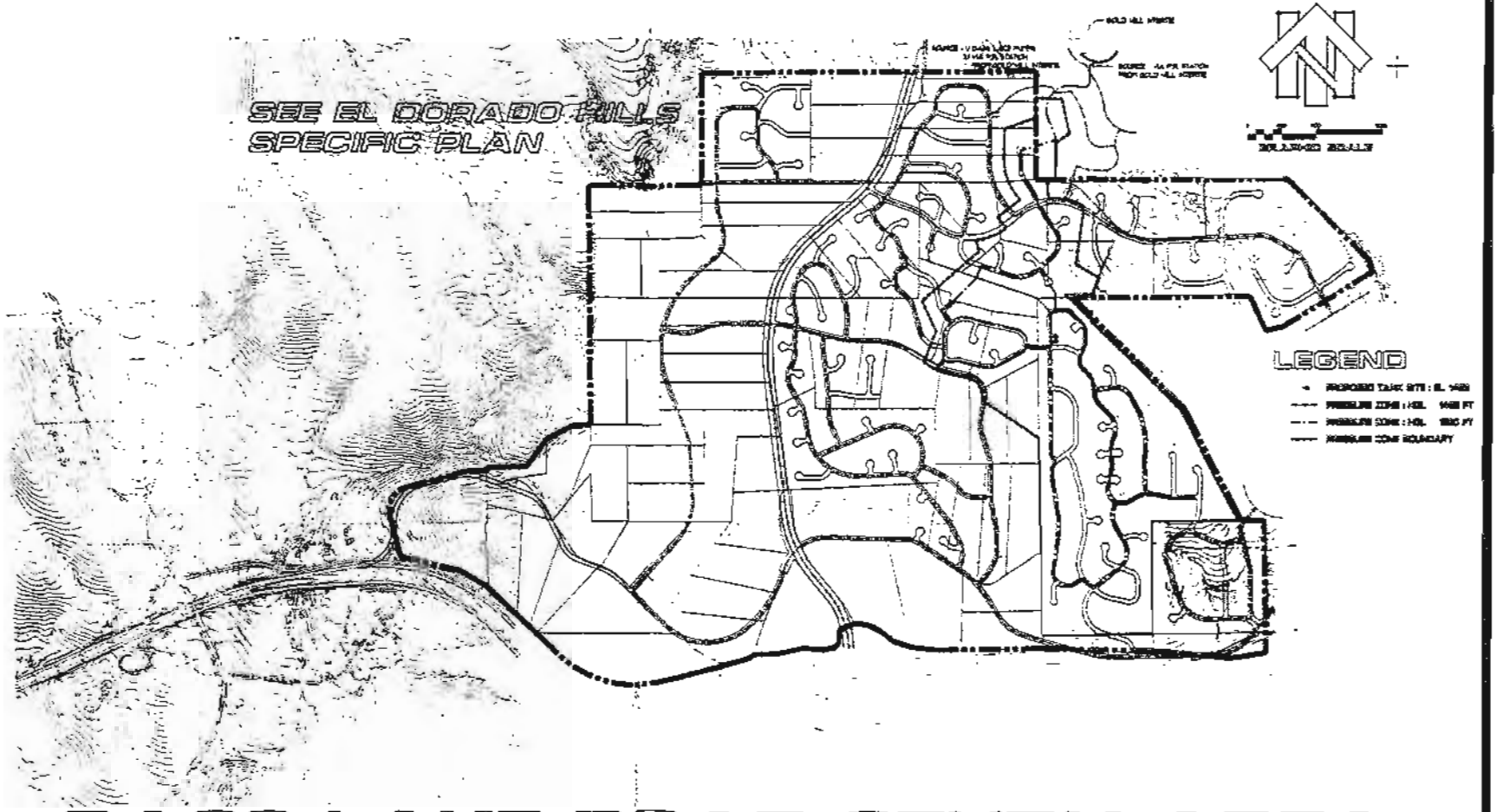
APPENDIX F:

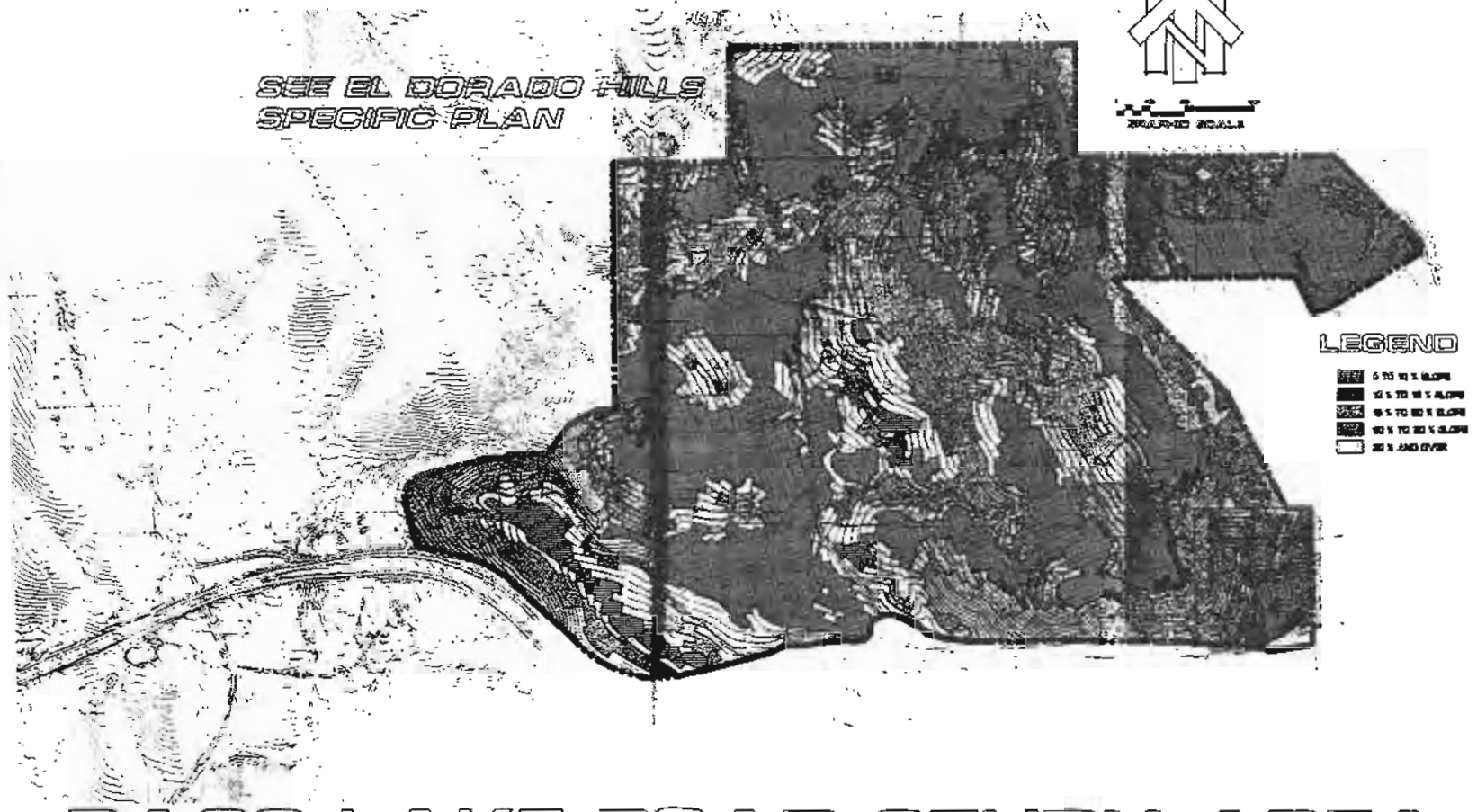
INFRASTRUCTURE AND FACILITIES PLANS



BASS LAKE ROAD STUDY AREA: WATER PLAN

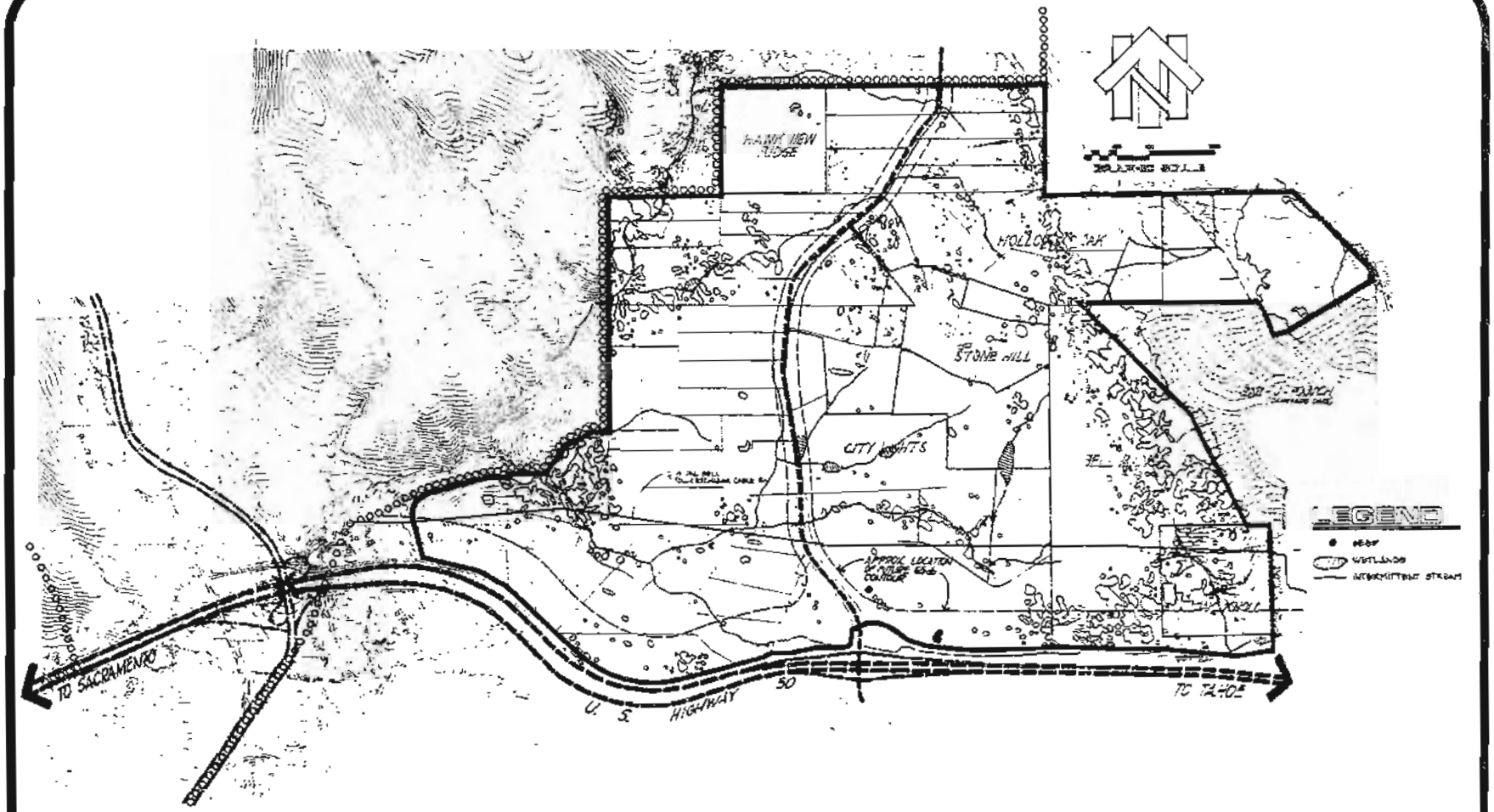
DRAFT MASTER PLAN DATE 1/24/92

COOPER THORNE & ASSOCIATES INC.
Civil Engineering & Land Surveying
3233 Mather Circle
Rancho Cordova, CA 95742
916) 638-2919/ FAX 638-2479



BASS LAKE ROAD STUDY AREA: SLOPE STUDY MAP

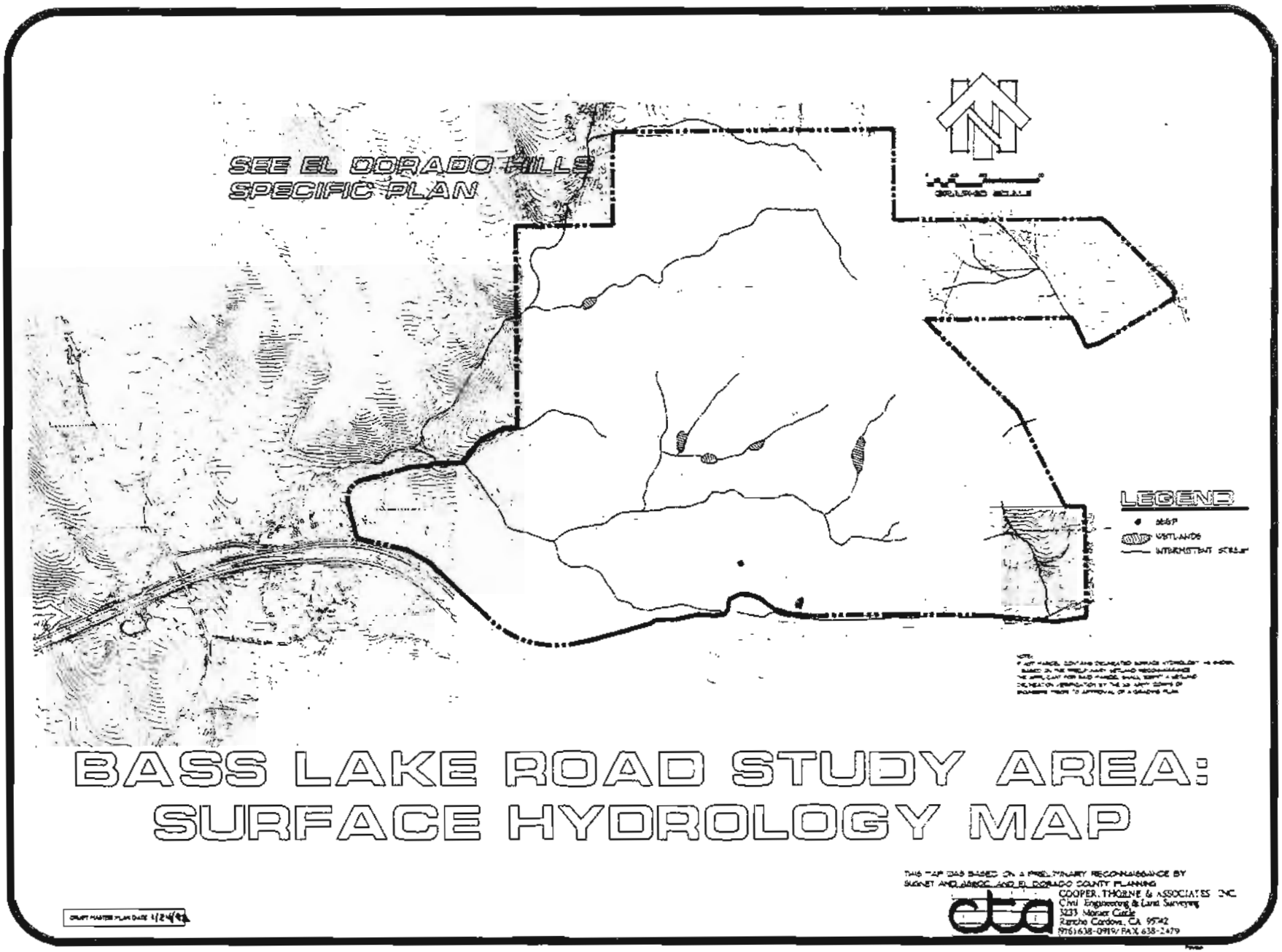
COOPER, THORNE & ASSOCIATES INC.
Civil Engineering & Land Surveying
3233 Monier Circle
Rancho Cordova, CA 95742
(916) 638-0919/ FAX 638-2479



BASS LAKE ROAD STUDY AREA: CONSTRAINTS MAP

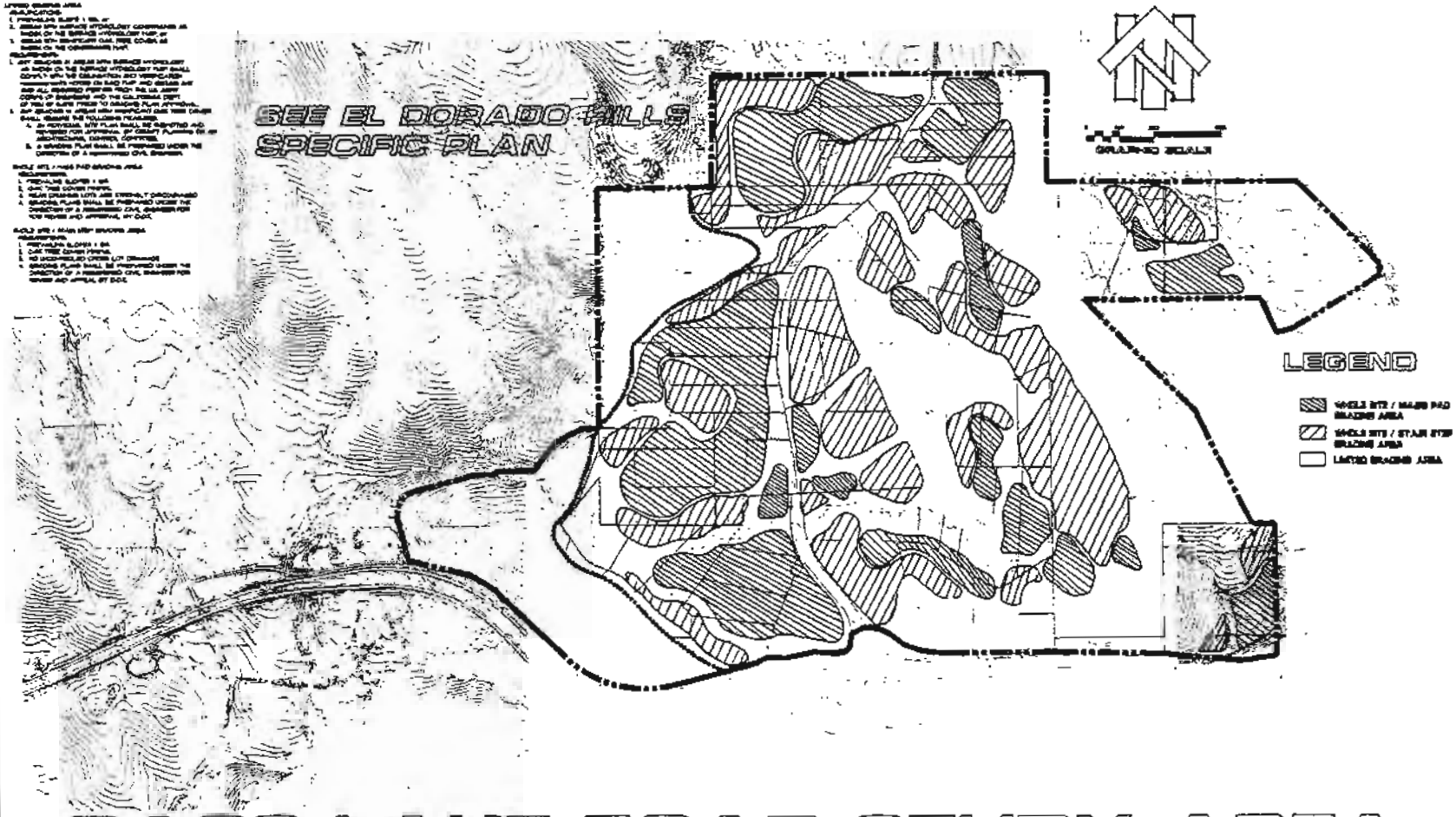
DRAFT MASTER PLAN DATE 12/92

COOPER THORNE & ASSOCIATES INC
Engineering & Land Surveying
9333 Monies Circle
Rancho Cordova, CA 95742
(916) 638-0919 FAX 638-2479


SEE EL DORADO HILLS SPECIFIC PLAN
LEGEND
WETLANDS
BASS LAKE ROAD STUDY AREA:
SURFACE HYDROLOGY MAP
COOPER, THOMAS & ASSOCIATES, INC.
Civil Engineering & Land Surveying
3233 Monier Circle
Rancho Cordova, CA 95742
(916) 638-0919/ FAX 638-2479

NOTES:

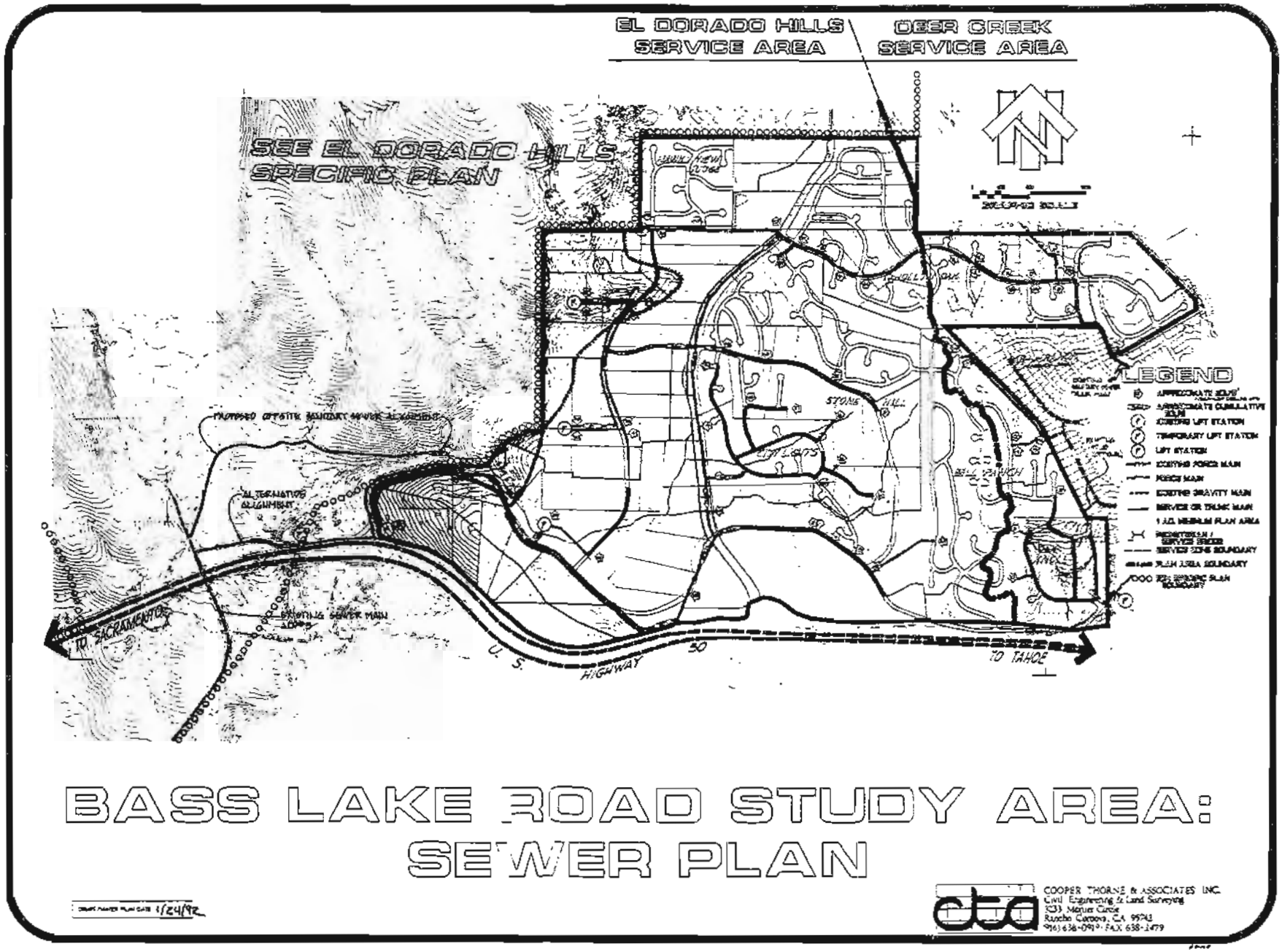
SEE EL DORADO HILLS SPECIFIC PLAN



BASS LAKE ROAD STUDY AREA: GRADING CONSTRAINTS MAP

DRAFT MASTER PLAN DATE - 1/24/92

COOPER, THORNE & ASSOCIATES INC.
Civil Engineering & Land Surveying
3233 Monier Circle
Rancho Cordova, CA 95742
(916) 638-0919/ FAX 638-2479

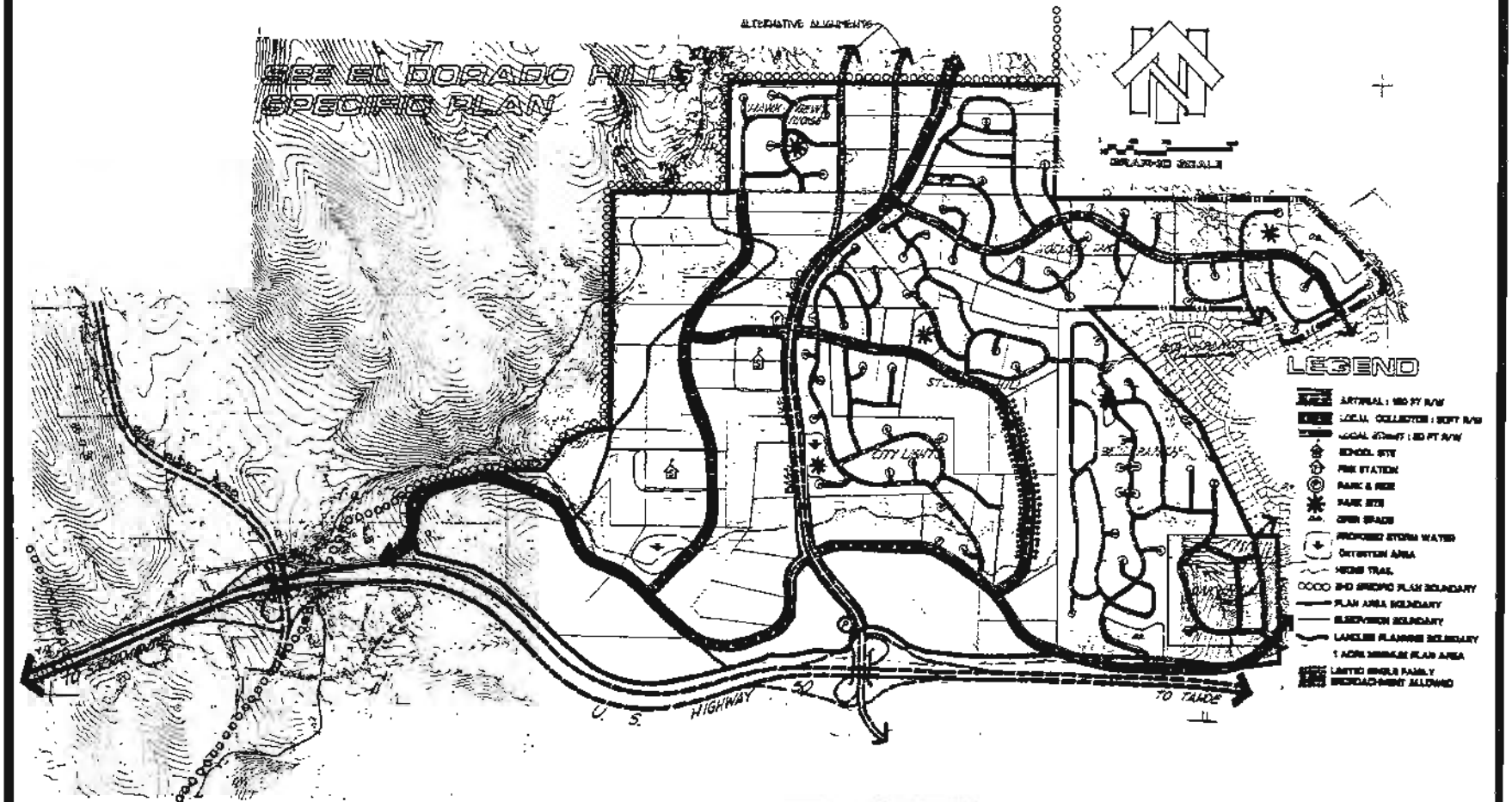


BASS LAKE ROAD STUDY AREA: SEWER PLAN

DRAFT MASTER PLAN DATE 1/24/92

COOPER THORNE & ASSOCIATES INC.
Civil Engineering & Land Surveying
533 Menlo Circle
Rancho Cordova, CA 95742
(916) 638-0919 FAX 638-1479

MASTER PLAN



BASS LAKE ROAD STUDY AREA: CIRCULATION & PUBLIC FACILITIES

COOPER THORNE & ASSOCIATES INC.
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Rancho Cordova, CA 95742
(916) 638-2919 FAX 638-2479

APPENDIX G:

MITIGATION MONITORING PLAN

BASS LAKE ROAD STUDY AREA
PROGRAM ENVIRONMNETAL IMPACT REPORT
MITIGATION MONITORING PLAN

MITIGATION MEASURE D01

Each project within the Bass Lake Road study area will retain a geotechnical engineer to identify soil constraints and make recommendations regarding development of roadways, foundations, and other structures. Each engineer will be required to submit documentation of field evaluation of facilities to the Department of Transportation.

IMPLEMENTING / MONITORING PARTIES:

- Developers are responsible for hiring the geotechnical engineer and submitting appropriate geotechnical documentation to the DOT in conjunction with Tentative Maps.
- The El Dorado County Department of Transportation is responsible for review of geotechnical documentation and approval of cuts and fills proposed for roadway construction and emplacement of infrastructure.

COMPLIANCE / PERFORMANCE STANDARDS:

- Successful implementation of this measure can be determined based on adopted standards and practices.
- All required monitoring for this mitigation measure can be carried out as part of the normal County inspection process.

MITIGATION MEASURE D02

El Dorado County requires that structures be constructed to the standards of the Uniform Building Code (UBC). The required strength of these structures is intended to be adequate to withstand a seismic event of the probable maximum expectable intensity predicted for the region. To this end, the County requires that each structure be approved prior to construction and inspected prior to occupation.

IMPLEMENTING / MONITORING PARTIES:

- The El Dorado County Community Development Department, Building Division, is responsible for review and approval of building plans.

COMPLIANCE / PERFORMANCE STANDARDS:

- All required monitoring for this mitigation measure can be carried out as part of the normal County inspection process.
- Uniform Building Code (UBC) standards have been adopted by the County. Additional standards are not warranted.

MITIGATION MEASURE D03

The necessity for blasting will be determined on a project by project basis. In instances where blasting is required, the affected project will obtain appropriate permits from the County. Blasting will be performed only by professional firms in accordance with pertinent regulations.

IMPLEMENTING / MONITORING PARTIES:

- Developers are responsible for hiring professional firms to perform blasting and for notifying the DOT of proposed blasting.
- El Dorado County Department of Transportation is responsible for approval of blasting. Input from the Sheriff's Department and Department of Environmental Health should be contacted prior to approval of this activity.

COMPLIANCE / PERFORMANCE STANDARDS:

- All required monitoring for this mitigation measure can be carried out as part of the normal County inspection process.
- Regulations pertaining to amount and type of explosive, time of activity, and acceptable noise levels are established.

MITIGATION MEASURE D04

Prior to development, each project will submit a Grading Plan to the El Dorado County Planning Department and Department of Transportation for review and approval.

IMPLEMENTING / MONITORING PARTIES:

- Developers are responsible for preparation and submittal of grading plans.
- El Dorado County Department of Transportation is responsible for review and approval of grading plans.
- All required monitoring for this mitigation measure can be carried out as part of the normal County inspection process.

COMPLIANCE / PERFORMANCE STANDARDS:

- Guidelines and performance standards for grading and similar earthmoving activities are established by County Ordinance 3983. Additional standards are not warranted.

MITIGATION MEASURE D05

Grading, trenching, and similar construction activities which involve disturbance of the soil will be performed in accordance with the provisions of County Ordinance 3983. The ordinance specifies that such activities be restricted to the summer season and/or extended periods of dry weather. Filter berms, sandbag or hay bale barriers, culvert risers, filter inlets, and/or sediment detention basins will be utilized as appropriate during construction to protect area waterways from siltation and debris. All open ditches or developed swales will be appropriately vegetated or lined with coarse rock.

IMPLEMENTING / MONITORING PARTIES:

- In accordance with County Ordinance 3983, grading plans will be prepared in conjunction Tentative Maps and will be submitted to El Dorado County for review and approval prior to the commencement of construction. Developers are responsible for conveying operational restrictions to the construction crews.

- The El Dorado Department of Transportation is responsible for review and approval of grading plans. DOT and the Planning Division are responsible for field inspection during and after construction.

COMPLIANCE / PERFORMANCE STANDARDS:

- The standards for compliance with this measure are established in County Ordinance 3983.

MITIGATION MEASURE E01

Individual projects within the study area will adhere to the mitigation identified in the El Dorado Hills Salmon Falls Area Plan which specifies "*Non-building setbacks of 100 feet from perennial streams; 50 feet from intermittent streams; 150 feet from lakes; and 100 feet from ponds, should be observed as recommended by the County Health Department.*" Drainage shall be conveyed in vegetated corridors, and installation of storm drains will be restricted to minor swales where such systems are required to convey runoff to the protected corridors. Major drainages will be maintained as vegetated corridors. Except for limited measures to minimize erosion potential (bank stabilization, planting of native compatible grasses to enhance cover, etc.), no development will be permitted within these corridors. All culverts will be designed to allow the passage of aquatic organisms.

IMPLEMENTING / MONITORING PARTIES:

- Developers are responsible for preparation of drainage plans which utilize natural drainageways. Setbacks and drainage corridors will be delineated on all Tentative Maps.
- The El Dorado County Department of Transportation is responsible for review and approval of plans for drainage facilities.

COMPLIANCE / PERFORMANCE STANDARDS:

- Compliance with this measure can be determined using the specifications provided in the detailed drainage analysis(es) which will be reviewed and approved prior to commencement of construction.
- All required monitoring for this mitigation measure can be carried out as part of the normal County inspection process.

MITIGATION MEASURE E02

Each project will provide detention adequate to maintain pre-project flow conditions. Although individual projects in the Bass Lake study area may elect to provide individual detention facilities, it is recommended that a single facility serving the entire study area be constructed. The appended hydrologic analysis indicates that construction of a detention facility with ±40 acre-feet of capacity will provide adequate mitigation to prevent exacerbation of the potential flooding situation created by the substandard channel segment located downstream of the study area. The proposed facility would be located at the site of the existing pond in the south central portion of the study area. Although the entire study area would not discharge to this pond, adequate detention could be provided to compensate for increased flows from the area outside of the facility's drainageshed. Construction, operation and maintenance of the facility could be provided through an Area of Benefit.

IMPLEMENTING / MONITORING PARTIES:

- Developers are responsible for preparation of drainage plans which include adequate detention to maintain flows from the study area to pre-project levels. Detention facilities will be identified on individual Tentative Maps, or on a map depicting an area-wide drainage system.

- The El Dorado County Department of Transportation is responsible for review and approval of plans for drainage facilities.

COMPLIANCE / PERFORMANCE STANDARDS:

- Compliance with this measure can be determined using the specifications provided in the detailed drainage analysis(es) which will be reviewed and approved prior to commencement of construction.

- All required monitoring for this mitigation measure can be carried out as part of the normal County inspection process.

MITIGATION MEASURE E03

Consistent with the methodology identified in CONTROLLING URBAN RUNOFF: A Practical Manual for Planning and Designing Urban BMPs, each project will submit a Best Management Practices (BMP) plan which specifies the measures which will be implemented to protect water quality. These measures will be identified on Tentative Maps and adopted as Conditions of Approval.

IMPLEMENTING / MONITORING PARTIES:

- Developers are responsible for preparation of drainage plans which include Best Management Practice (BMP) methodology. Proposed drainage facilities will be identified on individual Tentative Maps, or on a map depicting an area-wide drainage network.

- The El Dorado County Department of Transportation is responsible for review of drainage plans and determination of adherence of proposed facilities to BMP methodology.

COMPLIANCE / PERFORMANCE STANDARDS:

- Compliance with this measure can be determined using the specifications provided in the detailed drainage analysis(es) which will be reviewed and approved prior to commencement of construction.

- All required monitoring for this mitigation measure can be carried out as part of the normal County inspection process.

MITIGATION MEASURE F01

Each project proposed on a property which supports native oak trees will retain an arborist to prepare a tree survey. The survey will provide an inventory of trees on the site as well as recommendations for the removal or preservation of individual trees. Prior to construction, fencing will be installed outside of the dripline of trees which are to be protected.

IMPLEMENTING / MONITORING PARTIES:

- Individual projects are responsible for having a site specific tree survey prepared by a qualified arborist. Trees will be identified on Tentative Maps to allow comparison of the tree cover with proposed street and lot configurations.
- The El Dorado County Planning Department is responsible for review and approval of Tentative Maps.

COMPLIANCE / PERFORMANCE STANDARDS:

- The El Dorado County Planning Department is responsible for determining that sufficient actions have been implemented to minimize tree removal to an acceptable level.

MITIGATION MEASURE F02

Properties which harbor elderberry plants will obtain clearance from the USFWS prior to disturbance of the plants. It is anticipated that the USFWS will require mitigation for disturbance of these plants.

IMPLEMENTING / MONITORING PARTIES:

- Those projects identified as supporting elderberry plants are responsible for implementation of measures which satisfy the mitigation requirements of the USFWS. Documentation from the USFWS will be submitted to El Dorado County Planning Department by each project prior to approval of a Tentative Map that project.

- The El Dorado County Planning Department is responsible for review of correspondence from the USFWS which specifies mitigation requirements, and verification that the required actions have been implemented, prior to consideration of a Tentative Map for these projects.

COMPLIANCE / PERFORMANCE STANDARDS:

- The USFWS is responsible for determining a sufficient level of mitigation. As a general rule, a minimum of "no net loss" of elderberry habitat will be required. In practice, the USFWS requires that adequate habitat be protected in the vicinity to allow propagation of beetle populations. Disturbance of existing elderberry plants may be permitted if beetle populations are not present, but would require transplanting and/or planting of additional elderberry plants in a protected location.

MITIGATION MEASURE F03

Prior to approval of Tentative Maps, properties identified in this EIR as supporting wetland resources will be required to provide evidence of compliance with Department of Fish and Game policy and Section 404 of the Clean Water Act as administered by the U.S. Army Corps of Engineers. To satisfy Section 404 requirements, each project supporting wetland resources will be required to provide a site specific wetland assessment and mitigation plan. The County will determine, on a project by project basis, the form in which additional information is to be submitted.

IMPLEMENTING / MONITORING PARTIES:

- Those projects identified as supporting wetland resources are responsible for implementation of measures which satisfy the mitigation requirements of the US Army Corps of Engineers. Documentation of mitigation requirements/compliance from each of these agencies will be submitted to El Dorado County Planning Department by each project prior to approval of a Tentative Map that project.

- The El Dorado County Planning Department is responsible for review of correspondence which establishes mitigation requirements, and verification that the required actions have been implemented, prior to consideration of a Tentative Map for these projects.

COMPLIANCE / PERFORMANCE STANDARDS:

- The standards for wetland mitigation are established under Section 404 of the Clean Water Act.

MITIGATION MEASURE G01

Sprinkling of graded or similarly exposed areas will be performed at least twice a day during construction. EPA estimates indicate that this action can reduce dust emissions by up to 50% (EPA-450/3-74-036a: 1974).

IMPLEMENTING / MONITORING PARTIES:

- Developers are responsible for implementation of sprinkling.
- Sprinkling requirements are addressed in the grading requirements identified in County Ordinance 3983. In accordance with County Ordinance 3983, grading plans will be prepared in conjunction Tentative Maps and will be submitted to El Dorado County for review and approval prior to the commencement of construction. Developers are responsible for conveying operational restrictions to the construction crews.
- The El Dorado Department of Transportation is responsible for review and approval of grading plans. DOT and the Planning Department are responsible for field inspection during and after construction.

COMPLIANCE / PERFORMANCE STANDARDS:

- The standards for compliance with this measure are established in County Ordinance 3983.

MITIGATION MEASURE G02

Consistent with the County Ordinance 3983, grading will not be permitted during periods of high winds.

IMPLEMENTING / MONITORING PARTIES:

- Restrictions on grading are addressed in County Ordinance 3983. In accordance with County Ordinance 3983, grading plans will be prepared in conjunction Tentative Maps and will be submitted to El Dorado County for review and approval prior to the commencement of construction. Developers are responsible for conveying operational restrictions to the construction crews.

- The El Dorado Department of Transportation is responsible for review and approval of grading plans. DOT and the Planning Department are responsible for field inspection during construction.

COMPLIANCE / PERFORMANCE STANDARDS:

- The standards for compliance with this measure are established in County Ordinance 3983.

MITIGATION MEASURE G03

The most recent amendment of the California Clean Air Act stipulates that each APCD designated as a nonattainment area is required to prepare and submit a plan for attaining and maintaining the State Ambient Air Quality standards. The El Dorado County APCD is currently preparing the required plan which is due to the ARB no later than June 30, 1991. The plan will identify measures required to facilitate attainment of the ambient air quality standards. Individual projects within the Bass Lake study area will comply with the requirements of the attainment plan.

IMPLEMENTING / MONITORING PARTIES:

- Developers are responsible for incorporating required measures into project plans.
- The El Dorado County Air Pollution District (APCD) is responsible for review of project plans, identification of appropriate measures. Depending upon the extent and nature of any recommended or required mitigation, such measures may be incorporated as conditions on the individual project maps as each is adopted.

COMPLIANCE / PERFORMANCE STANDARDS:

- The APCD is responsible for determining the level of mitigation necessary to attain compliance for each individual project.

MITIGATION MEASURE G04

Individual projects will provide turn out lane(s), bus stop shelters, or other infrastructure necessary to facilitate extension of transit services to the study area. The location, number, and design of these facilities will be established based on consultation with RT and the El Dorado County Department of Public Works. The required facilities will be identified on Tentative Maps and identified as conditions of approval of the various projects.

IMPLEMENTING / MONITORING PARTIES:

- Developers are responsible for incorporating required facilities into their individual projects. As specified in the mitigation measure, these facilities will be included on Tentative Maps.
- The El Dorado County APCD is responsible for identifying appropriate facilities to help reduce vehicular trips.
- As a component of Tentative Map review, the Department of Transportation is responsible for review of engineering design of such facilities.

COMPLIANCE / PERFORMANCE STANDARDS:

- The APCD is responsible for determining the level of mitigation necessary to provide for sufficient reduction in emissions from each project.
- The DOT is responsible for approval of the engineering and design of facilities.

MITIGATION MEASURE H01

Construction activity commonly occurs in developed or developing residential areas. Practical considerations and common sense have, in practice, minimized noise impacts to already occupied homes. All construction equipment is subject to established performance regulations which include adequate mufflers, enclosure panels, or other noise suppression attachments as appropriate. However, should the need arise, construction noise is subject to regulation through existing ordinances. In instances where difficulties arise, the County has the authority to restrict the hours that noisy activities can be conducted to 7am–7pm weekdays, and 8am–8pm weekends. In instances of exceptional noise, such as blasting, a special County permit may be required and warning or temporary relocation of neighbors may be necessary.

IMPLEMENTING / MONITORING PARTIES:

- The El Dorado County Department of Environmental Health is responsible for determining the need for establishing time constraints on construction activities. Should such constraints be implemented, environmental health, planning, and DOT would be responsible agencies for field monitoring.

- Developers are responsible for communicating operational restrictions to construction crews.

COMPLIANCE / PERFORMANCE STANDARDS:

- Acceptable noise levels are established by the Noise Element of the El Dorado County General Plan.

MITIGATION MEASURE H02

As individual projects are proposed within the study area, they will be subjected to an environmental review. This review will include the determination of the need for further noise analysis. This analysis will include, as appropriate, an on site noise assessment to determine the actual location of noise contours. In situations where the predicted 65 dB(A) noise contour falls outside of the roadway right of way and within residential property, projects will be required to implement measures to reduce the noise to the recognized standards included in the **El Dorado County General Plan Noise Element**. Typical measures which may be implemented include setbacks, sound walls, and landscaped berms.

In some instances, noise attenuation of individual residential units will be most appropriate. Construction techniques which may be utilized to reduce interior noise levels include in wall insulation, double pane windows, properly sealed joints, and placement of bedrooms away from noise sources. In accordance with State standards, residential housing must attain interior noise levels of less than 45 dB.

IMPLEMENTING / MONITORING PARTIES:

- Developers are responsible for retaining a qualified noise consultant and incorporating appropriate mitigation into project design.
- Projects determined by the Department of Environmental Health as being areas of potential noise violations will submit a detailed noise analysis prepared by a qualified noise consultant. The Department of Environmental Health and department of Planning are responsible for evaluation of the noise analyses and proposed mitigation.

COMPLIANCE / PERFORMANCE STANDARDS:

- Noise standards are established by the **Noise Element of the El Dorado County General Plan.**

MITIGATION MEASURE I01

Mitigation for potential land use conflicts between existing agricultural operations and urban development is provided by the **EL DORADO HILLS - SALMON FALLS AREA PLAN** which designates the most likely affected areas as **(G) MEDIUM DENSITY RESIDENTIAL** with a maximum density of one unit per acre and the concurrent zoning designation of **(AE) - EXCLUSIVE AGRICULTURE** for the southwest portion of the site.

The change in land use from low density rural residential to high density urban residential will also be mitigated by the provisions of the **EL DORADO HILLS - SALMON FALLS AREA PLAN** which requires (page 61, M.M. No. 4) "Non-building setbacks of 100 feet from perennial streams; 50 feet from intermittent streams; 150 feet from lakes; and 100 feet from ponds." M.M. No. 2 (page 63) "Riparian areas should be maintained in a natural state. Where alteration is proposed, the Department of Fish and Game will be notified." Within the study area, the **(G) MEDIUM DENSITY RESIDENTIAL** Area Plan land use designation is applied to the riparian area of Carson Creek along the western edge of the site. This classification requires a minimum of one dwelling unit per acre in recognition of the need to leave the riparian corridor relatively undisturbed.

IMPLEMENTING / MONITORING PARTIES:

- Developers are responsible for submitting projects designed to accommodate natural and regulatory development constraints.
- The El Dorado County Planning Department is responsible for determining the appropriateness of proposed land uses.

COMPLIANCE / PERFORMANCE STANDARDS:

- Permitted land use classifications are identified by the **El Dorado Hills / Salmon Falls Area Plan**.

MITIGATION MEASURE I02

El Dorado County ordinances require an agreement with the Board of Supervisors as to the manner in which the park requirements are met. This may be land dedication, payment of fees, or a combination of both.

IMPLEMENTING / MONITORING PARTIES:

- Individual developers are responsible for dedication of land and/or payment of fees to mitigate the increased demand for park and recreation facilities generated by development.
- The El Dorado County Planning Department is responsible for review of Tentative Maps, evaluation of proposed park mitigation identified on the maps, and acceptance of fees and/or land dedication for park uses.

COMPLIANCE / PERFORMANCE STANDARDS:

- Park standards are established by the **El Dorado County General Plan** based on the 5 acres / 1000 people standard identified by the Quimby Act.

MITIGATION MEASURE J01

In order to provide a functional area-wide circulation system, all of the roadway and facility improvements identified in the Program EIR will be constructed. Project impacts to Bass Lake Road will be mitigated by 1) acquisition of right-of-way for four lanes through the study area, 2) construction of Bass Lake Road to four lanes with facilities through the study area, and 3) dedication of right-of-way for an additional lane (outside lane of a six lane facility) along the frontage of applicant properties. Project maps will be conditioned to require construction of improvements as they are warranted. Improvements to County roads beyond those provided by this project will be funded through County adopted Roadway Fees.

IMPLEMENTING / MONITORING PARTIES:

- Developers are responsible for payment/construction of the roadway improvements triggered by implementation of their various projects, as well as payment of a roadway fee to be applied toward construction of improvements needed to serve cumulative growth.

- The El Dorado County DOT is responsible for monitoring needed roadway improvements, collection of roadway fees, and review/approval of roadway improvements provided by developers.

COMPLIANCE / PERFORMANCE STANDARDS:

- DOT is responsible for monitoring roadway and signal Levels of Service, and inspection/approval of roadway facilities.

MITIGATION MEASURE J02

For the short term, impacts to the Bass Lake Road/Highway 50 interchange will be mitigated by construction of the interim configuration identified by Caltrans. These improvements will be provided by the project applicants. Traffic counts will be performed annually to ensure the interchange operates at an acceptable LOS during peak periods. Complete reconstruction of the interchange will be implemented in a timely manner so as to prevent degradation of peak period LOS to less than acceptable levels. Reconstruction of the interchange will be funded through an Area of Benefit or similar financing mechanism established by County DOT.

IMPLEMENTING / MONITORING PARTIES:

- Developers are responsible for payment/construction of the roadway improvements triggered by implementation of their various projects, and/or payment of roadway fees to be applied toward construction of improvements needed to serve cumulative growth.
- The El Dorado County DOT is responsible for monitoring needed roadway improvements, collection of roadway fees, and review/approval of roadway improvements provided by developers.
- Caltrans is responsible for monitoring conditions on Highway 50, and rebiew and approval of improvements which affect the highway.

COMPLIANCE / PERFORMANCE STANDARDS:

- DOT is responsible for monitoring roadway and signal Levels of Service, and inspection/approval of roadway facilities.
- Caltrans is responsible for monitoring roadway and signal Levels of Service on Highway 50, and inspection/approval of roadway imporvements.

MITIGATION MEASURE K01

Projects which are not currently within the service area of EID will be required to petition LAFCO for annexation. LAFCO requires that EID shall provide written documentation stating its ability to provide adequate service to annexing property when it is anticipated that such services will be needed and that provision of such service will not create a significant negative impact on the properties already receiving service. Additionally, the letter will identify when the service is projected to be needed and the plan which the District has developed for expanding its service capacity to meet the needs of the annexing territory at that time. Pursuant to Resolution 90-39, EID can issue water meters only when water is available for service. Tentative maps for each of the individual projects within the study area will be conditioned to prevent the recording of a final map until a firm commitment of water is available from EID.

IMPLEMENTING / MONITORING PARTIES:

- Developers are responsible for petitioning LAFCO for annexation into EID.
- LAFCO is responsible for evaluating EID's ability to provide service prior to approval/denial of any request for annexation.
- EID is responsible for maintaining an accurate accountability of its water resources, and providing documentation that service can be extended.
- The El Dorado County Water Agency, EID, and developers are responsible for promoting and implementing water conservation measures wherever practical.

COMPLIANCE / PERFORMANCE STANDARDS:

- LAFCO and EID policies have been established which ensure that water service is not extended beyond the ability of the Water District to provide.

MITIGATION MEASURE K02

Presently proposed sewer capacity with programmed expansions are adequate to handle anticipated growth in the near term, as described above. For the long term, other options will need to be examined by EID to assure that capacity for ultimate needs is available. Developers will enter into the necessary service agreement(s) with EID to facilitate extension of sewer service. Included in these agreements will be developer installation of conveyance facilities in accordance with EID requirements. Parcels not already within the District will require annexation.

IMPLEMENTING / MONITORING PARTIES:

- Developers are responsible for design and emplacement of on site infrastructure and facilities.
- DOT and EID are responsible for review and approval of proposed sewer facilities.
- Developers are responsible for petitioning LAFCO for annexation into EID.
- LAFCO is responsible for evaluating EID's ability to provide service prior to approval/denial of any request for annexation.
- EID is responsible for operation and maintenance of the sewer treatment facilities.

COMPLIANCE / PERFORMANCE STANDARDS:

- Design standards and plans for expansion of regional facilities exist to ensure that facilities are constructed and service established consistent with adopted practice.

MITIGATION MEASURE K03

Developers will need to enter into the required agreements with PG&E for the provision of services to the project in accordance with PUC regulations. Developers will need to be responsible for relocation or rearrangement of the existing gas and/or electric facilities required to facilitate each development.

IMPLEMENTING / MONITORING PARTIES:

- Developers are responsible for relocation or rearrangement of the existing gas and/or electric facilities required to extend service.
- Developers are responsible for preparation of Tentative Maps and facility plans necessary to ensure an orderly extension of service to the individual projects as they are constructed.
- PG&E and DOT are responsible for review of facility plans necessary to ensure an orderly extension of service to the individual projects as they are constructed.
- PG&E is responsible for long range planning of the electrical and gas systems necessary to serve continued development of the region. As the need for land acquisition and siting of facilities required to serve cumulative growth are defined, PG&E is responsible for communicating these needs to the El Dorado County Planning Department and DOT.

COMPLIANCE / PERFORMANCE STANDARDS:

- Existing review procedures using adopted design specifications are sufficient to evaluate compliance.

MITIGATION MEASURE K04

In accordance with Pacific Bell and PUC regulations, developers will be responsible for any relocation costs of existing overhead telephone facilities, and will provide the underground supporting structure to each lot.

IMPLEMENTING / MONITORING PARTIES:

- Developers are responsible for relocation or rearrangement of the existing telephone facilities as necessary to facilitate extension of service.
- Developers are responsible for preparation of Tentative Maps and facility plans necessary to ensure an orderly extension of service to the individual projects as they are constructed.
- Pacific Bell and DOT are responsible for review of facility plans necessary to ensure an orderly extension of service to the individual projects as they are constructed.
- Pacific Bell is responsible for long range planning of the electrical and gas systems necessary to serve continued development of the region. As the need for land acquisition and siting of facilities required to serve cumulative growth are defined, Pacific Bell is responsible for communicating these needs to the El Dorado County Planning Department and DOT.

COMPLIANCE / PERFORMANCE STANDARDS:

- Existing review procedures using adopted design specifications are sufficient to evaluate compliance.

MITIGATION MEASURE K05

The Sheriff's Department is funded through the County General Fund. The County Board of Supervisors has the responsibility to allocate funds to maintain an adequate level of service.

IMPLEMENTING / MONITORING PARTIES:

- The Sheriff's Department is responsible for communicating personnel and equipment requirements to the Board of Supervisors.
- The Board of Supervisors is responsible for assessment of taxes and allocation of funds as needed to support the various functions of County government.

COMPLIANCE / PERFORMANCE STANDARDS:

- Compliance can be verified through existing County procedures and policies.

MITIGATION MEASURE K06

The El Dorado Hills Fire Department is supported by development fees and is a self-supporting enterprise fund with a property tax base. For this reason, there will be no net impact on the County General Fund. The development fee of $308 per dwelling unit will generate $893,508 which should cover capital costs for structure and equipment for the needed new station. The need for a new station will be determined by the Fire District on a project by project basis, and that, upon payment of the adopted fire fee and receipt of an "ability to serve" letter from the Fire District, individual projects may be allowed to proceed prior to construction of the new station.

IMPLEMENTING / MONITORING PARTIES:

- Developers are responsible for design and installation of fire hydrants and supporting water infrastructure, and payment of fees and/or provision of a fire station site. At the discretion of the Fire Department, a station site and/or facilities may be provided in lieu of all or part of the assessed fees.

- The Fire Department is responsible for review of project maps and evaluation of proposed fire service infrastructure. The Department has the responsibility of evaluating proposed mitigation and may accept a combination of fees, land, and facilities to offset the assessed impact of new development.

- The Planning Department, Building Division, is responsible for verifying that the assessed development fees have been collected prior to issuance of building permits.

COMPLIANCE / PERFORMANCE STANDARDS:

- Compliance can be verified through existing County procedures and policies.

MITIGATION MEASURE K07

El Dorado Disposal Service has indicated that pickup services can be extended to the new development in the study area. The El Dorado County Environmental Management Department has indicated that, although capacity at the Union Mine Disposal Site is presently limited to two years, actions are underway to provide expansion of the disposal site as needed.

IMPLEMENTING / MONITORING PARTIES:

- Developers are responsible for communicating the need for extension of service to the El Dorado County Environmental Management Division and El Dorado Disposal Service.
- DOT is responsible for review of Tentative Maps to ascertain roadways are of adequate width and design to allow access to disposal service vehicles.

COMPLIANCE / PERFORMANCE STANDARDS:

- Compliance can be verified through existing County procedures and policies.

MITIGATION MEASURE K08

Consistent with the pending fee ordinance, each new home in the study area will be assessed a school fee of $7,198. The fee will be paid at the time of issuance of building permit. As outlined in the ordinance, Stirling fees are included in the fee, and dwelling units which pay the new fee will receive credit for their Stirling fee obligation.

As a matter of policy, the Buckeye School District does not consider development impacts to be resolved to a less than significant level until needed sites and financing are identified. Implementation of mitigation measure **K08** is sufficient to provide the necessary financing mechanism, but a potential school site(s) has not been identified. Although no unusual difficulties are anticipated with selection of a school site, this impact cannot be considered mitigated to a less than significant level until the needed site(s) are identified.

IMPLEMENTING / MONITORING PARTIES:

- Developers are responsible for paying the established school impact fee.
- Each school district is responsible for facility expansion to accommodate development, and retain the authority to accept land and/or facilities in lieu of school fees.

COMPLIANCE / PERFORMANCE STANDARDS:

- Payment of the established fee represents compliance with the adopted standard. However, the Buckeye School District has indicated that designation of future school sites is required to mitigate the impact created by continuing development. The District has requested that developers cooperate with the School District in identifying the needed sites.

MITIGATION MEASURE K09

The ability to provide service to new students can only be determined by the respective School Districts on a project by project basis. Projects desiring to proceed prior to the availability of new school(s), must obtain an "ability to serve" letter from the school districts. The school districts are responsible for determining the number of students that can be accommodated in available facilities prior to construction of a new school(s).

IMPLEMENTING / MONITORING PARTIES:

- Developers are responsible for obtaining "ability to serve" letters from the school districts.
- El Dorado County is responsible for verifying "ability to serve" letters prior to issuance of building permits.
- The school districts are responsible for determining their ability to provide service to new students.

COMPLIANCE / PERFORMANCE STANDARDS:

- Provision of "ability to serve" letters from the school districts is adequate to ascertain compliance.

MITIGATION MEASURE NO1

The historic cemetery (Site 1) should be preserved intact and in place. If relocation or disturbance of any kind is contemplated, specific legal requirements must be met. Such action would require research into the significance and specific history of the cemetery and its occupants. Grave relocation should be done in consultation with living relatives.

IMPLEMENTING / MONITORING PARTIES:

- Developers are responsible for preparation of responsible development plans which make every reasonable effort to preserve the cemetery. If relocation is determined to be infeasible, the developer of the site is responsible for providing relocation of the cemetery in accordance with existing State regulations.

- The El Dorado County Planning Department is responsible for review and approval of Tentative Maps which depict development in the proximity of the cemetery. If relocation of the cemetery is proposed, the Planning Department is responsible for monitoring the relocation process.

COMPLIANCE / PERFORMANCE STANDARDS:

- State regulations are adequate to verify compliance.

MITIGATION MEASURE N02

Construction workers will be informed of the archaeologic history of the study area, and instructed as to the types of materials and/or artifacts which would be indicative of sensitive sites. If any presently unknown artifacts or sites are discovered during construction, all work in the immediate vicinity of the find should be halted until a qualified archaeologist has an opportunity to evaluate the find and recommend appropriate action.

IMPLEMENTING / MONITORING PARTIES:

- Developers with archaeologic/historic resources on their properties are responsible for conveying the appropriate information to construction crews.
- The El Dorado County Planning Department is responsible for verifying that the appropriate information has been conveyed to construction crews.

COMPLIANCE / PERFORMANCE STANDARDS:

- Planning staff can verify compliance through contact with construction workers.