

CITY COUNCIL MEETING

August 5, 1981

Continued August 5, 1981

FILLEY RANCH EIR On motion of Mayor Pro Tempore Murphy, Hughes second, Council set for Public Hearing on September 2, 1981, consideration of the City Planning Commission's recommendation that the City Council certify as adequate the Filley Ranch Final Environmental Impact Report.

FILLEY RANCH

DRAFT

ENVIRONMENTAL IMPACT REPORT

EIR 81-2

Prepared by:

**City of Lodi
Community Development Department
221 West Pine Street
Lodi, CA 95240**

Applicant:

**Filley Ranch, A General Partnership
Ronald B. Thomas, Partner
P. O. Box B-28
Lodi, CA 95241**

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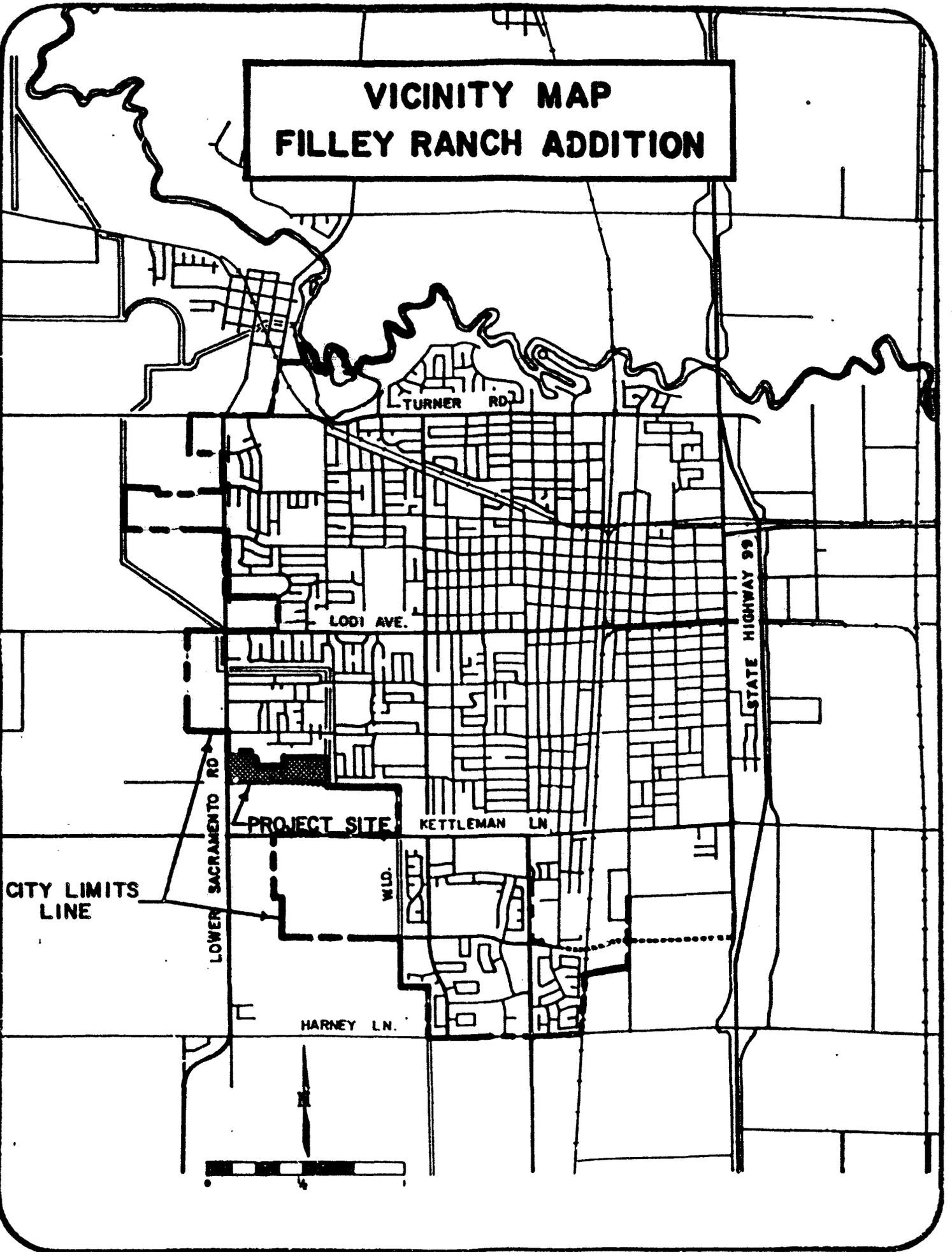
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LAST DATE TO COMMENT

JUL 24 1981

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VICINITY MAP FILLEY RANCH ADDITION



TURNER RD

LODI AVE.

PROJECT SITE

KETTLEMAN LN

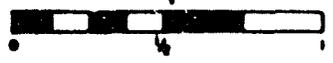
CITY LIMITS
LINE

LOWER SACRAMENTO RD

STATE HIGHWAY 99

W.L.D.

HARNEY LN.



PROPOSED MAP OF TRACT NO. 1732

FILLEY RANCH

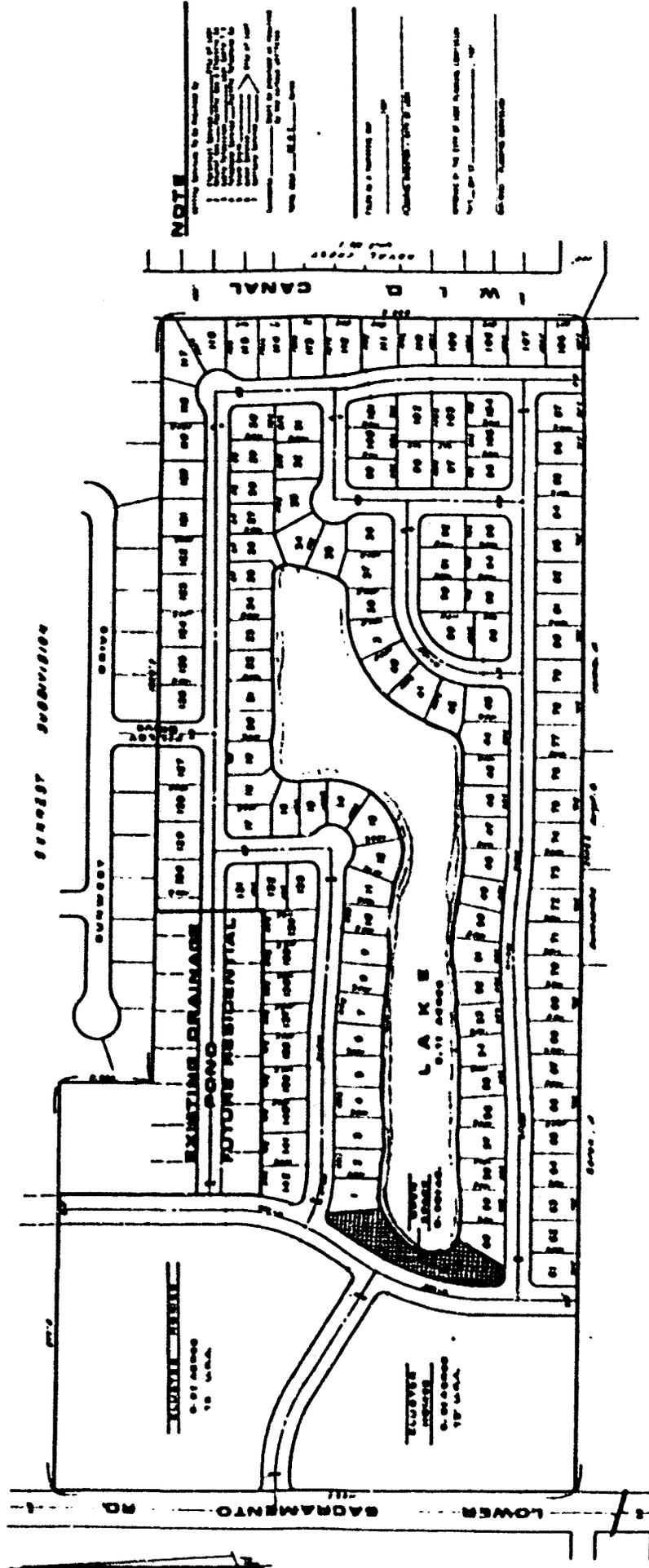
SUBDIVISION OF SAN JOAQUIN COUNTY

Being a portion of the southeast quarter of Section 10, T3 N, R3 E, M.D.B. & M. City of Lodi, San Joaquin County, California

March 1991 Scale: 1" = 100'

Prepared by Ron Thomas

DENSITY	ACRES	UNITS	S.F./A.C.
RESIDENTIAL	1.11	17	17,100
COMMERCIAL	0.11	1	11,100
TOTAL	1.22	18	28,200
NET AREA - 0.12 A.C.A.			



NOTE

1. This map is prepared in accordance with the provisions of the Subdivision Map Act, Chapter 463, of the California Government Code, and the rules and regulations of the State Board of Control, Chapter 151, of the California Code of Regulations.

2. The map is prepared on the basis of the information furnished to the preparer by the owner and is not a warranty of the accuracy of the information.

3. The map is prepared on the basis of the information furnished to the preparer by the owner and is not a warranty of the accuracy of the information.

4. The map is prepared on the basis of the information furnished to the preparer by the owner and is not a warranty of the accuracy of the information.

<p>Prepared by BAUMBACH & PLAZA Civil Engineers - Architects 100 S. G St., Lodi, Calif. 95240</p>	<p>Scale 1" = 100'</p>
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SUMMARY

FILLEY RANCH

Environmental Impact Report

PROJECT DESCRIPTION

The project is a 52.6[±] acre residential and commercial development. The project will contain 142 single-family lots and 176 cluster homes. The project will also contain 1 6.1 acre recreational lake that will also function as a temporary storm drainage basin.

The subject site is currently designated low-density residential in the Lodi General Plan. This designation permits an overall residential density of 1-10 units per acre. The parcel is currently zoned GA-40 (San Joaquin County) and will require a rezoning to P-D, Planned Development. The project will require an annexation to the City of Lodi.

LOCATION

The project will be located on the east side of Lower Sacramento Road, 1/4 mile north of Kettleman Lane (Highway 12). The parcel is designated as San Joaquin County Assessor's parcel 027-040-21.

ENVIRONMENTAL IMPACTS

1. Loss of 52.6[±] acres of prime agricultural soil. Parcel is Class 1 soil made up of Hanford Sandy Loam; well suited for a variety of agricultural uses. Development will mean loss of agricultural use of land.

Urbanization could affect adjacent agricultural parcels by restricting normal spraying and cultivation operations. Vandalism, trespassing and homeowner's complaints could increase.

2. Traffic will increase on Lower Sacramento Road. The project will generate approximately 2,524 vehicle trips per day when fully developed.
3. Air pollution will increase slightly as a result of increased vehicular traffic. Increase will be less than 1% of San Joaquin County emissions.
4. Residential units adjacent to Lower Sacramento Road will be subject to noise levels that exceed recommended levels for residential units.
5. Approximately 265 additional school-aged children could be added to the already overcrowded L.U.S.D. Providing adequate classroom space could be a problem.

MITIGATING MEASURES

1. No real mitigation possible for loss of agricultural land. Entire Lodi area is prime agricultural land. Property is within the General Plan area for the City of Lodi and is designated for residential use.

SUMMARY

FILLEY RANCH

Environmental Impact Report

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adjacent agricultural operations.

Additionally, the installation of utilities in this area could encourage further development of the area. The lake/basin concept may be utilized by other property owners and developers.

City of Lodi General Plan designates the area low density residential which allows 1-10 units per acre.

The applicant is requesting a City zoning classification of Planned Development, (P-D). The zoning and the proposed overall project density of 6.1 units per acre meets the requirements of the residential-low density general plan designation.

IV. DESCRIPTION OF ENVIRONMENTAL SETTING

A. TOPOGRAPHY

The project site and the surrounding area are generally flat with elevations of approximately 40-45 feet above sea level. The land is currently planted in vineyards and field crops. It is probable that the land was leveled some time in the past to facilitate surface irrigation. The parcel contains no natural drainage channels or other topographic features.

B. HYDRAULICS

There are no natural water features located on the project site. The Woodbridge Irrigation Canal runs along the east property line and is a source for agricultural irrigation to this and other properties in the area. The property does not lie within the floodplain of the Mokelumne River and would not be affected during a 100 year flood.

Except for properties served by the Woodbridge Irrigation District Canal, the majority of land in the Lodi area, including the City of Lodi, is served by groundwater. There are existing private agricultural and domestic wells on the property.

The proposed project includes a 6.1 acre recreational lake. The lake will also serve as a temporary storm drainage holding facility until the City can construct a permanent basin in the area. The source of water for the lake will be the existing agricultural well and water from the W.I.D. canal. The developer has an agreement with the W.I.D. to use district water during any period that the W.I.D. has surplus water available. The agricultural well will serve as a backup source of water for the lake.

The 6.1 acre lake will contain approximately 30-37 acre feet of water, based on an average depth of 5-6 feet. It is estimated that an additional 15-20 acre feet will be required to replace water loss to evaporation.

The City Water Department reports that the average daily water consumption per capita in Lodi is 270 gallons per day. This figure includes commercial and unmetered industrial uses as well as residential uses.

The following water consumption chart breaks down the various water uses by acre feet/acre year for different development zones.

Single family residence	3.1 acre feet/acre/year
Multiple family residence	2.4 acre feet/acre/year
Commercial residence	2.3 acre feet/acre/year
Office/Professional	1.4 acre feet/acre/year

The proposed development has the following number of acres in the above described uses.

Use	<u>No. of Acres</u>	<u>No. of Acre Ft./ Acre/Year</u>	<u>Total No. of Acre feet/Acre Year</u>
Single-family	34	3.1	105.4
Multi-family	11.9	2.4	28.6
			<u>134.0</u>

The combined residential acreages will use approximately 134 acre feet per year. Adding the 15-20 acre feet of water needed to replenish the lake annually, the total annual water use for the project will be approximately 149-154 acre feet.

Using figures provided by the San Joaquin County Farm Advisor for agricultural water use, we can make some water use comparisons. The average vineyard requires approximately 35 inches of water annually. Natural rainfall provides approximately 9 inches of the annual demand. The remaining 26 inches is supplied by irrigation. Converted to acre feet, each acre of vineyard will use approximately 3 acre feet of water per year.

The 52.6 acres of the project x 3 acre feet = approximately 157.8 acre feet of water required by the agricultural operation annually. This is very close to the 149-154 acre feet required annually by the proposed development.

C. SOIL CONDITIONS

The soil type of the project site is Hanford Sandy Loam. The surface soil of the Hanford Sandy Loam consists of an 8 to 14 inch layer of light, grayish brown, soft friable sandy loam which has a distinct grayish cast when thoroughly dry. The material grades downward into a subsoil of slightly darker and richer brown soil.

Agriculturally, Hanford Sandy Loam is one of the best soils. It is used in the production of orchard, vineyard and other intensive perennial crops. In the Lodi area this soil is primarily used for grape vineyards. The soil conservation service rates Hanford Sandy Loam as Class 1 (the highest rating) and the Storie Index rates it at 95 percent for the ability to produce crops.

The soil is also rated good for construction purposes. The bearing capacity of the soil is 2,000 lbs. per square foot. It does not have expansive qualities and will support most structural building loads.

The 1978 edition of the Uniform Building Code designates Lodi as being in Seismic Zone 3, one that requires the strictest design factors for lateral forces.

The project will contain a man-made lake. The lake will be excavated and the soil used on-site. Soils studies done by J. H. Kleinfelder & Associates, geologist and engineers for Kennedy Ranch, indicate the lake will not create soil problems if constructed according to sound engineering practices. (J. H. Kleinfelder & Associates Soils Investigation for Kennedy Ranch, 1981. Available at Community Development Department, City of Lodi).

D. SEISMIC HAZARD

Earthquake faults are not found in the immediate vicinity of the subject parcel. The nearest faults are approximately 14 miles to the south and west. The most probably sources of strong ground motion are from the San Andreas Fault, Hayward Fault, the Livermore Fault and the Calaveras Fault, all located in the San Francisco Bay area.

E. BIOTIC CONDITONS

The site has been cleared of natural vegetation and replaced with cultivated crops. The property currently contains grape vineyards and field crops. The type of plants and wildlife found on the site are common to lands in the agricultural areas surrounding Lodi. There are no known rare or endangered species of plant or animal located on the project site.

F. ATMOSPHERIC CONDITONS

Air Quality in the San Joaquin Valley is affected by a combination of climatology and topography. Topographically, San Joaquin County is located approximately in the middle of the Sacramento/San Joaquin Valley. The valley has a trough-like configuration that acts as a trap for pollutants. Mountain ranges surrounding the valley restrict horizontal air movement and frequent temperature inversions prevent vertical air movement. The inversion forms a lid over the valley trough, preventing the escape of pollutants.

Climatology also affects the air quality. High summer temperatures accelerate the formation of smog. This, combined with summer high pressures which create low wind speeds and summer temperature inversions to create the potential for high smog concentrations.

San Joaquin County air quality is not in compliance with National Air Quality Standards.

<u>Pollutant</u>	<u>Nat. Air Quality Standard</u>	<u>San Joaquin Air Quality</u>
Ozone	0.12 ppm (1 hr. avg)	0.17 ppm
Carbon Monoxide	9.0 ppm (8 hr. avg)	14.4 ppm
Total suspended particulate matter	75 ug/m ³ (AGM)	81 (highest AGM)
Sulfur-dioxide	365 ug/m ³ (24 hr. avg) 80 ug/m ³ (annual avg)	no measurement

The primary source of air pollution generated by the development will be from vehicular traffic. The trip generation estimates are based on data from the Institute of Traffic Engineers.

Single-Family Residential:

Based on 9 vehicle trip ends per unit, the 142 units will generate 1278 vehicle trips per day.

Attached Housing Units:

Based on 7 vehicle trip ends per unit, the 178 units will generate 1246 vehicle trips per day.

Total vehicle trip generation will be 2,524 vehicle trips per weekday generated by the proposed development.

There is no specific data for the City of Lodi, so information was generated based on the data for San Joaquin County. The City of Lodi was assumed to generate 9.9% of the total for San Joaquin County. The following emission data was generated:

	*SO _x	*Particulate Matter	*Lead	*Hydro-Carbons	*CO	*NO _x
San Joaquin County	1.687	3.065	0.209	22.052	221.394	26.851
City of Lodi 9.9% of S.J.C.	.167	.303	.021	2.183	21.918	2.658
Filley Ranch 2-cars per house	.007	.012	.001	.088	.886	.107

*Figures in Tons/day

Filley Ranch would account for less than 1% of the total for San Joaquin County. This is a worst-case situation and the figure for Filley Ranch is probably higher than what will actually be generated. (See Appendix I for Sample Work Sheet).

G. NOISE

The primary source of noise in the area of the proposed project will be vehicular traffic on Lower Sacramento Road. Lower Sacramento Road serves as a major north-south collector street connecting the north San Joaquin County area with Lodi and Stockton.

City of Lodi noise contour maps based on 1995 traffic projections show the following:

- 70 decibels to 60' of the roadway
- 65 decibels to 160' of the roadway

Readings are based on Ldn noise criteria.

The San Joaquin County Noise Element sets forth the following noise guidelines for residential development:

Less than 60 decibels	=	Acceptable
60 - 69 decibels	=	Conditionally acceptable
70 - 74 decibels	=	Normally unacceptable
75 decibels or greater	=	Clearly unacceptable

This data indicates that noise levels up to 60' of the roadway are unacceptable and noise levels up to 160' of the roadway are classified as conditionally acceptable:

As currently proposed, a portion of the parcels designated for cluster housing units will fall within the high noise area.

V. UTILITIES

A. STORM DRAINAGE

The City of Lodi operates a system of interconnected storm drainage basins to provide temporary storage for peak storm runoff. The runoff is stored until the water can be pumped into the W.I.D. Canal at a controlled rate. The City does not currently have a basin to serve the area of the Filley Ranch project.

In order to provide storm drainage for the project, the applicant is proposing to use the recreational lake as a temporary storm drainage basin. The lake on the subject property will pond the storm drainage from the project during periods of peak runoff. As the storm subsides, the runoff from the lake will be pumped into the City's storm drainage system and eventually pumped into the W.I.D. Canal.

In addition to the lake, the project will require the construction of a major line connecting the project lake to the City system. The line would run along the Community Drive right-of-way.

The lake will be designed to accommodate the project runoff from a 100 year storm. The design will permit a rise of 2-3 feet in the level of the lake during periods of heavy rainfall.

The lake only provides a temporary solution to the storm drainage. At some future date, a permanent storm drainage basin will be constructed south of the project site. When this is done, the project site will then serve only a recreational purpose. Storm water from the project will be stored in the City basin.

B. SANITARY SEWER

The project will be served by the City of Lodi sanitary system. There is currently an 18" line located in Lower Sacramento Road which will service the property. The City system is adequate to handle the project sewage.

C. DOMESTIC WATER

Domestic water will be provided by the City of Lodi. There are existing lines on Lower Sacramento Road, Vine Street and Filley Drive, which will be extended to serve the project. In addition, the City may request a well site on the project property to serve the area. The well will be built and maintained by the City as a part of the City's water system.

Water for the filling and recharge of the recreational lake will not come from the domestic water system. The developer has an agreement with the W.I.D. Canal to use canal water for this purpose during years that the W.I.D. has surplus water. There is also a private irrigation well on the property that could be used for this purpose.

D. ELECTRICITY AND NATURAL GAS

Electricity will be provided by the City of Lodi and natural gas will be provided by P.G. & E. Both services can be adequately supplied to the project with normal line extensions.

VI. COMMUNITY SERVICES

A. TRAFFIC & CIRCULATION (Also See Atmospheric section)

The project site will tie into the City's street system. Lower Sacramento Road which runs along the west property line, will be the major street serving the property. The property will also be served by extensions of Community Drive and Filley Drive which will connect to Vine Street to the north.

Lower Sacramento Road is a major north-south street carrying traffic between Stockton, Lodi and north county areas. Traffic counts taken by the City of Lodi in 1979 and 1980 for Lower Sacramento Road are 7,500 vehicle trips per day north of Vine Street and 6,500 vehicle trips per day between Vine Street and Kettleman Lane.

Kettleman Lane (Highway 12) is a major east-west street and is located 1/4 mile south of the project site. Kettleman Lane currently carries 10,000 vehicle trips per day between Lower Sacramento and Ham Lane. Kettleman Lane serves as a major connector between west and east side of Lodi. The street also connects I-5 and State Highway 99.

Lodi Avenue, located 1/4 mile north of the project site is a major connector between west Lodi and the central business district. Current traffic volumes on Lodi Avenue are 5,500 vehicle trips per day between Lower Sacramento Road and Mills Avenue and 10,000 vehicle trips per day between Mills Avenue and Ham Lane.

Filley Drive will connect the proposed development to Sun West Subdivision to the north. Community Drive will serve as the major north-south collector street in the project, connecting to Vine Street to the north and to future developments to the south.

The proposed project will have a total of 320 residential units. There will be 142 single-family lots and 176 units of cluster housing.

Using a factor of 9 vehicle trips per single family dwelling, the single-family lots will generate 1,278 vehicle trips per day (v.t./sfd x 142 units = 1,278 v.t.)

For the cluster housing we use a factor of 7 v.t. per unit. The cluster housing would generate 1,232 v.t. per day (8 v.t./cluster unit x 176 units = 1,232 v.t.)

The total vehicle trips generated by the Filley Ranch project would be 2,510 v.t. per day.

B. POLICE & FIRE PROTECTION

The City of Lodi will provide police and fire protection to the proposed development. The Chief of Police has indicated that the department has no "level of reserve" which should be maintained in the City Department. He indicates that the additional service for the subject property will come from reordering of departmental enforcement priorities. The Chief notes, however, that this new development and other areas of the City will receive uniform treatment with regard to service levels.

The Chief of Police will review the project plans to insure that the street lighting system and building and street layout permit adequate security surveillance by police patrol units.

The nearest fire station to the subject development is the main station at Elm and Church Streets. The Fire Chief will review all plans to assure adequate fire protection. He will work with the developer on the number and location of fire hydrants and will review the project plan to insure adequate accessibility for fire equipment.

C. SCHOOLS

The Lodi Unified School District (LUSD) is experiencing a problem of student overcrowding in many of its schools. Many of the schools are at maximum capacity and the District must transport students out of their normal attendance area to accommodate all the students.

In order to defray the costs of construction of needed new school facilities, the City of Lodi passed City Ordinance No. 1149. This ordinance, passed pursuant to Senate Bill 201, was enacted prior to the passage of Proposition 13 of 1978. The ordinance provided for the City Building Department to collect a "fee" of \$200 per bedroom in new residential developments. Currently, lawsuits are pending regarding the legality of this type of levy. The monies collected under the Lodi ordinance are currently being impounded. The School District may or may not be able to use the impounded funds and may not be able to continue the levy pending the outcome of the litigation.

The developer has a recorded agreement with the LUSD to provide some type of payment to the school district. If Ordinance No. 1149 is declared unconstitutional, the developer has agreed to pay directly to the District a monetary amount equal to the fees established by No. 1149.

The agreement also states that the LUSD can request dedication of a school site in lieu of payment of the fees. This would be at the discretion of LUSD.

The proposed project will contain approximately 320 residential units. The number of students is estimated as follows:

<u>Housing Type</u>	<u>No. of Units</u>	<u>Child Per Unit</u>	<u>TOTAL</u>
Single Family homes	142	1.0	142
Cluster homes	176	0.7	123
			<hr/>
		TOTAL CHILDREN	265

The school district allocates children in new developments proportionately among their thirteen grade system.

It can be concluded that the proposed development does not, in itself, warrant construction of a school or schools; however, in combination with existing need and future development in the project area, the need for new schools is inevitable.

D. RECREATION

The proposed project provides a 6.1 acre private lake for use by the homeowners. The lake could be used for non-motorized boating and fishing. A one-half acre recreation area has been set aside adjacent to the west end of the lake. The Homeowner's Association will be responsible for the maintenance and regulation of the lake.

Additionally, there will be a permanent storm drainage basin/park south of the project which will be constructed sometime in the future. When constructed this will provide a 20-30± acre park and open space area built in conjunction with the basin.

E. SOLID WASTE

Existing collection of residential solid waste within the City of Lodi is on a weekly basis by a franchise collector. At the present time waste is hauled directly to the Harney Lane Disposal site, a Class 11-2 landfill, by the collector; however, future plans include a transfer station and expanded resource recovery facilities at the company's headquarters in the eastside industrial area. Current and proposed operations are consistent with the San Joaquin County Solid Waste Management Plan, adopted June, 1979. The subject area is within County Refuse Service Number 3 and the North County Disposal Area, which is served by the Harney Lane site.

During the Fall season, City crews regularly pick up leaves, which are currently being taken to a City site approximately 2½ miles north of the subject area, where they are picked up by a private contractor for composting. Alternative disposal is direct haul to Harney Lane.

The subject area was within the planned urban growth area of the City of Lodi at the time the county Solid Waste Management Plan was developed and adopted. Solid waste volume projections used in the plan were based on future urban development, which included the subject area. Following are solid waste estimates based on planned and projected residential densities.

The volume of solid waste which will be generated by the proposed commercial area (compared to the area developing residentially) is considered insignificant in terms of its impact on the existing and future disposal and collection systems.

The number of units built in the project will be 320. The City's franchise collector estimates that each residential unit in the City of Lodi generates an average of 39 pounds of solid waste per week.

$$320 \text{ units} \times 39 \text{ pounds/week} = 12,480 \text{ estimated pounds of solid waste}$$

V.II. SPECIAL DISTRICTS

The proposed project will affect two special districts - the Woodbridge Irrigation, which has a canal along the east property line of the project, and the Woodbridge Fire Protection District.

The W.I.D. will be affected in several ways. First, the W.I.D. will be providing surplus canal water to fill and maintain the project lake. The developer has an agreement with the W.I.D. to utilize district water during years when the W.I.D. has a surplus of water after all their agricultural commitments have been met. The developer will be assessed to some degree upon fee for the water.

Secondly, because the W.I.D. canal is an open ditch, the District is concerned with possible accidents involving their canal. They have requested that the developer be required to construct a 6' chainlink fence along the project boundary adjacent to the canal. The fence would serve as a barrier between the project and the canal. This could be done as part of the requirements of the project approval or as a condition of the subdivision map. This would have to be approved by the City of Lodi.

Finally, the property will be detached from W.I.D. once the property is annexed to the City of Lodi.

The Woodbridge Fire Protection District will be affected by having the subject property detached from their District. The City of Lodi will take over fire protection responsibility once the property is annexed to the City. The District is concerned with the loss of property tax funds which are lost when property is removed from their District. The W.F.P.D. and other special districts are experiencing financial problems as a result of Proposition No. 13.

VIII. HISTORIC AND ARCHEOLOGICAL SITE

There are no sites or buildings on the subject property that are designated as historical landmarks by any Federal, State or local agencies. The nearest recorded landmarks are in the community of Woodbridge, 1-1/2 mile to the north.

Although there are no recorded archeological surveys of the site, it is doubtful that there are any archeological sites on the property. Known Indian sites in the Lodi area are usually located along the banks of the Mokelumne River, two miles to the north.

The property has been extensively cultivated for many years. There is no record of any items of antiquity ever being unearthed on the site. Additionally, the extensive digging and plowing to cultivate the vineyards and the trenching to install irrigation lines would have destroyed any archeological material.

If, during construction, some article of possible archeological interest should be unearthed, work will be halted and a qualified archeologist called in to examine the findings.

IX. ENVIRONMENTAL ASSESSMENT

A. ENVIRONMENTAL IMPACTS

The main environmental impact of the proposed project will be the loss of the 52.6± acres of prime agricultural land. The project parcel is made up of Hanford Sandy Loam which is rated as a Class I soil for agricultural production. It is a soil type particularly well suited for the production of grapes in the Lodi area.

If the proposed project is approved, the removal of the vineyards and the construction of structures will terminate further use of the land for agriculture.

Urbanization of the subject parcel may affect the continued agricultural operation on adjacent parcels. The presence of residential and commercial structures may restrict or limit normal farming operations on adjacent agricultural lands. The use of certain pesticides and herbicides may be restricted by State regulations, particularly next to residential areas. Cultivation and harvesting operations may result in complaints from residents concerning noise and dust. Agricultural operations adjacent to urbanized areas may also be subject to an increased amount of trespassing and vandalism.

The proposed project will increase traffic on Lower Sacramento Road and possibly other streets in the area. The project is estimated to generate 2,510± vehicle trips per weekday when fully developed.

The increase in vehicular traffic will produce additional air pollution in the immediate area of the project. The project-generated pollution will have a localized affect on air quality, but will not significantly affect the overall air quality of San Joaquin County. Based on a worst-situation case, vehicular traffic generated by the development would increase overall air pollutants by 4/10 of 1%.

The project will be located adjacent to Lower Sacramento Road, a high noise traffic route. The project will have residential units that will fall within areas that exceed 60 decibels of noise. The 60 decibel level is generally considered the acceptable level for noise in a residential unit.

The project will generate an estimated 274 additional school-aged children. The addition of these students would adversely affect the LUSD and its ability to provide adequate classroom space. The LUSD has filed a Declaration of Impaction that states that the schools are at maximum capacity and that new students cannot be guaranteed classroom space.

B. MITIGATION MEASURES

If the Filley Ranch project is approved and constructed, the 52.6 acres of prime agricultural land will be removed from further agricultural use. There is no practical way to mitigate this impact. The property has been within the general plan area for the City of Lodi for many years and has been designated for residential development.

The additional traffic generated by the project can be mitigated by careful design of the project circulation system. Limiting driveway access onto Lower Sacramento Road will reduce traffic hazards and congestion.

The residential parcels should have their street access off of interior streets and not on Lower Sacramento Road.

Additionally, the project street design will be required to provide for adequate future access to properties to the south. This will allow for north-south traffic movement between Vine Street and Kettleman Lane.

The problem of high noise levels along Lower Sacramento Road and its impact on residential structures can be mitigated in two ways. First, construction of a sound wall along the roadway will partially shield the residential units and reduce the noise levels by approximately 10 dBA. Second, the design and placement of the residential units can further reduce the noise levels. Those structures immediately adjacent to the roadway will require special noise insulation that could include double glazed windows, extra wall insulation, caulking of all pipe and electrical wire holes cut in the walls, etc. Additionally, limiting the first row of houses to single story structures will make the same barrier more effective.

The impact of the additional students on the LUSD has been at least partially mitigated by the signing of an agreement between the developer and the school district. The agreement provides for the payment of an agreed upon amount of money for each residential unit to help pay for additional classroom space.

The fees would be paid directly to the LUSD if the City-imposed "bedroom fee" is ruled unconstitutional by the courts. If the "bedroom fee" is ruled constitutional, the developer will pay the "bedroom fee" and will not be required to pay any additional monies. In either case, the LUSD will receive a payment from the development.

Additionally, there is a countywide task force working on the problem of school financing. This task force has begun to generate recommendations for both short and long-term solutions to the problems faced by LUSD and other school districts in the county.

C. ALTERNATIVES TO THE PROJECT

The principle alternative to the proposed project would be a "no build" alternative. This would maintain the existing agricultural use of the land and eliminate the adverse impacts resulting from the proposed project.

The other alternative would be a different type of project. This could involve a different combination of land uses, i.e., more single family/less attached housing or less residential/some commercial, etc.

Ultimately, the second alternative would not significantly change the impacts resulting from the project. The primary impact, the loss of agricultural land, would result regardless of the project mix. The other impacts, traffic, air quality, noise and school children would change slightly according to the mix, but not enough to make a significant difference.

D. IRREVERSIBLE AND LONG TERM IMPACTS

The loss of agricultural land will be an irreversible and long-term impact. Once the land is developed with homes and businesses, there is little likelihood that the land will ever be used for agricultural purposes.

E. CUMULATIVE IMPACTS

A project will have a cumulative impact on the loss of agricultural land. In the past year, a 90± acre development, Lakeshore Village, was approved and is under development. Additionally, there were various residential, commercial and industrial projects that removed perhaps another 200± acres of agricultural land in the past several years. It is expected that additional requests for development projects will be made in the current year and in the future.

Unfortunately, all land in and around the City of Lodi is designated prime agricultural land. The entire area surrounding the City is in agricultural use. Almost every development, large or small, must utilize agricultural land. There are no non-prime soil non-agricultural parcels around Lodi. The residential, commercial and industrial requirements of the City and its residents necessitate urbanization of agricultural land.

The other significant cumulative impact is the impact on the LUSD. LUSD estimates place the number of new students generated by developments in Lodi and North Stockton at 5,000 students in the next few years. These students place a strain on the District's ability to provide classroom space, particularly in light of the fiscal problems facing schools.

Currently, developers both in Lodi and in Stockton have been working with the LUSD to provide funds for additional classroom space. This will help alleviate some of the short-term problems facing the schools.

F. GROWTH-INDUCING IMPACTS

The installation of various public utilities, particularly storm drainage, will encourage development of the area. If the concept of the private lake/storm drainage basin proves successful, it is likely that other developments in the area will consider the same approach. This would open the entire area up for development.

It must be noted, however, that the area is within the planning area of the City and has been designated for low density residential development for many years. The entire area east of the project property is completely developed.

6. ENERGY CONSERVATION

Structures in the project will be constructed to meet State of California Energy Standards. The standards include such things as window area, insulation, energy efficient appliances, etc.

A majority of the lots in the project have a north-south orientation. This orientation provides the best adaptability for both passive and active solar design. The developer could also offer various solar design packages as part of the construction of the homes.

LIST OF RESOURCE PUBLICATIONS

Residential Growth Statistics - City of Lodi, 1981.

Planning Level Subsurface Investigation - Lodi-Tamba Development,
Moore & Taber - Consulting Engineers & Geologist, 1979

Lakeshore Village Final EIR, City of Lodi, 1980

City of Lodi General Plan - City of Lodi

San Joaquin County General Plan to 1995 - Noise Element.

Transportation & Engineers Handbook - Institute for Traffic
Engineers, 1976.

San Joaquin County General Plan - Conservation Element.

Procedure for Basis for Estimating On-Road Motor Vehicle Emissions -
State of California Air Resources Board, January 1981.

Kennedy Ranch Draft EIR, City of Lodi, 1981

Soils Investigation - Proposed 10 Acre Lake - Kennedy Ranch,
J. H. Kleinfelder & Assoc., Geotechnical Consultants,
Engineering Lab; 1981.

PERSONS OR AGENCIES PROVIDING INFORMATION

R. Thomas Development, Inc.

Ronald Thomas

Lodi Unified School District

Woodbridge Irrigation District

Mabel Hall

Local Agency Formation Commission

Gerald Scott, Executive Director

**Baumbach & Piazza,
Civil Engineers, Lodi**

**Woodbridge Rural Fire
Protection District**

Leonard N. Ortiz

ON-ROAD VEHICLE EMISSION ESTIMATES WORKSHEET

This worksheet was designed as a supplement to the Procedure and Basis for Estimating On-Road Motor Vehicle Emissions document published by the State of California Air Resources Board, January 1980.

The worksheet uses the same formulas and methods to derive estimates of automobile air pollution, only in a simplified manner.

The worksheet consists of a table, broken-down into two parts:

1. Background Data (in the upper portion), available from sources described in the text of the worksheet, and
2. Estimate Results (in the lower portion), as obtained by using the formulas and calculations given in the text.

The text is coded with letters to match the spaces in the table. Calculations are noted with numerals, making formulas easy to find in the text.

Notes

The method for estimation used in the State procedures is best used with projects associated with large areas. County data is given in the text and tables of the document, and regional information is given in terms of air quality basins.

Smaller projects are more difficult to estimate using this procedure, unless locally gathered data is used in place of the standard data given in the text. Caution should be used when data is substituted so as to guarantee accurate results.

Procedure.

Motor vehicles are divided into six categories for analysis. They are:

1. Light-Duty Passenger Vehicles (LDP)
2. Light-Duty Trucks (LDT) (6,000 lbs. or less gross vehicle weight)
3. Medium-Duty Trucks (MDT) (6,001 - 8,500 lbs. GVW)
4. Heavy-Duty Gasoline Trucks (HDG) (8,500 + lbs. GVW)
5. Heavy-Duty Diesel Trucks (HDD) (8,500 + lbs. GVW)
6. Motorcycles (MCY)

One table should be made up for each of the six classifications of vehicles listed above, requiring six sets of the calculations in this worksheet.

Once all six of the tables have been made (one for each type of vehicle), totals can be calculated for each pollutant.

Following the worksheet table, three summary tables are provided to show the total emission estimates. The final table (bordered) gives a total for each pollutant as estimated using the method described by the State. All numbers in the last three tables are given in units of tons/day.

Soak Emissions, and Crankcase Emissions, which, in total (combined with the standard HC emissions), equal the "Total Hydrocarbon Emissions", Item 1.

Formulas:

NOTES 3-4.

Items Y, Z, a. Hot stabilized emissions are calculated in the same manner for HC, CO and NO_x emissions. Calculation 4 must be completed prior to Calculation 3.

NOTE 4.

$$\begin{aligned} \text{EH} &= 100\% \text{ Hot Stabilized (gm/mi)} \times \% \text{ Ttl @ 25.6mph} = y \\ &100\% \text{ Hot Stabilized (gm/mi)} \times \% \text{ Ttl @ 45 mph} = x \\ &100\% \text{ Hot Stabilized (gm/mi)} \times \% \text{ Ttl @ 55 mph} = w \end{aligned}$$

$$\text{Sum (w,x,y)} = \text{EH}$$

NOTE 3.

$$\text{EXR} = \text{EH} \times \text{VP} \times 3.01732 \text{ E-09}$$

Calculations:

For Item Y:

$$\begin{aligned} \text{(A)} \quad &\underline{1.727} \times (\% \text{ Ttl @ 25.6 mph}) \quad \underline{.47} = \underline{.81169} \\ \text{(D)} \quad &\underline{1.121} \times (\% \text{ Ttl @ 45 mph}) \quad \underline{.08} = \underline{.08968} \\ \text{(E)} \quad &\underline{1.028} \times (\% \text{ Ttl @ 55 mph}) \quad \underline{.45} = \underline{.4626} \end{aligned}$$

$$\text{SUM} = \underline{1.36397} \text{ (p)}$$

$$\begin{aligned} \text{(p)} \quad &\underline{1.36397} \times (\text{VMT}) \quad \underline{9832400} \\ &\times 3.01732 \text{ E-09} = \underline{.040466} \text{ tons per day (Y)} \end{aligned}$$

For Item Z:

$$\begin{aligned} \text{(F)} \quad &\underline{18.394} \times (\% \text{ Ttl @ 25.6 mph}) \quad \underline{.47} = \underline{8.64518} \\ \text{(I)} \quad &\underline{10.473} \times (\% \text{ Ttl @ 45 mph}) \quad \underline{.08} = \underline{.83784} \\ \text{(J)} \quad &\underline{9.169} \times (\% \text{ Ttl @ 55 mph}) \quad \underline{.45} = \underline{4.12605} \end{aligned}$$

$$\text{SUM} = \underline{13.60907}$$

$$\begin{aligned} \text{(q)} \quad &\underline{13.60907} \times (\text{VMT}) \quad \underline{9832400} \\ &\times 3.01732 \text{ E-09} = \underline{.40375} \text{ tons per day (Z)} \end{aligned}$$

For Item a:

$$\begin{aligned} \text{(K)} \quad &\underline{1.934} \times (\% \text{ Ttl @ 25.6 mph}) \quad \underline{.47} = \underline{.90898} \\ \text{(N)} \quad &\underline{2.264} \times (\% \text{ Ttl @ 45 mph}) \quad \underline{.08} = \underline{.18112} \\ \text{(O)} \quad &\underline{2.514} \times (\% \text{ Ttl @ 55 mph}) \quad \underline{.45} = \underline{1.1313} \end{aligned}$$

$$\text{SUM} = \underline{2.2214}$$

ON-ROAD VEHICLE EMISSION ESTIMATE WORKSHEET

Space:

Description:

%VT

Percent of vehicle trips (of the total) operating in the cold start or hot start mode. Standard data can be found in Appendix E, "Composite Emissions Factor Summary."

% Ttl

The percent of the total number of vehicles traveling at an average speed of 25.6, 45 or 55 m.p.h. Standard data can be calculated from the information in Table I-1, "Percent VMT by Traffic Condition." Information should be identical for each of the three pollutants listed.

Items A-U

Standard data available in Appendix E, "Composite Emission Factor Summary."

Item V

Average Annual Mileage. Standard data available in Table I-4, p. 18, "Average Annual Mileage and Daily Trips."

Item W

Percent vehicle growth rate. Data available in Table I-3, p. 17.

Item X

1975 In-Use Vehicle Population. This figure is used as a base for calculating current vehicle population, and is available in Table I-2, p. 16.

Item VT

Vehicle Trips per day per vehicle. Standard data available in Table I-4, p. 18.

Item VP; NOTE 1

In-Use Vehicle Population (current).

Calculation:

$$N_{\text{year}} = N_{1975} \left(1 + \frac{\text{GR}}{100} (\text{year} - 1975) \right)$$

Example:

$$N_{1979} = 141,455 \left(1 + \frac{2.38}{100} (1979 - 1975) \right)$$

$$= 141,455 (1.0952)$$

$$= 154,922$$

Item VMT; NOTE 2 Vehicle Miles Traveled.

Calculation:

$$\text{VMT} = \text{VP} \times \text{Item V.}$$

Items Y-Z, a-o

Vehicle emissions calculations. The data is calculated in three groups: Hot stabilized, Cold Start and Hot Start modes of operation. Separate calculations are made for HC, CO, and NO_x emissions, as described on the following page.

After the standard calculations, other hydrocarbon emission calculations are to be made. These are: Diurnal emissions, Hot

For Item a -- continued:

$$(a) \frac{2.2214 \times \overset{VMT}{(VP)} 9832400}{3.01732 \text{ E-09}} = \underline{.065903} \text{ tons per day (a)}$$

NOTES 5-6.

Items b-g. Cold Start and Hot Start emissions are calculated in the same way; however, different variables are used. Separate calculations are necessary for HC, CO and NO_x emission estimates. Calculation 6 must be made before Calculation 5.

Formulas:

NOTE 6.

$$EC = 3.59 \times \%VT \times (\text{Cold Starts @ 25.6 mph} - 100\% \text{ Stabilized @ 25.6})$$

NOTE 5.

$$EX = EC \times VT \times VP \times 1.10132 \text{ E-06}$$

Calculations:

For Item b: (%VT for Cold Starts only)

$$(B) \frac{4.521 - (A) 1.727}{3.59 \times (\%VT) .482} = \underline{2.794} \text{ (s)}$$

$$= \underline{4.8346817} \text{ (i)}$$

$$(i) \frac{4.8346817 \times (VT) 3.92 \times (VP) 1046}{1.10132 \text{ E-06}} = \underline{.021832} \text{ (b)}$$

$$\times 1.10132 \text{ E-06} = \underline{.021832} \text{ (b)}$$

For Item c: (%VT for Cold Starts only)

$$(G) \frac{56.124 - (F) 18.394}{3.59 \times (\%VT) .482} = \underline{37.73} \text{ (u)}$$

$$\times 3.59 \times (\%VT) .482 \times (u) 37.73$$

$$= \underline{65.287237} \text{ (v)}$$

$$(v) \frac{65.287237 \times (VT) 3.92 \times (VP) 1046}{1.10132 \text{ E-06}} = \underline{.29482} \text{ (c)}$$

$$\times 1.10132 \text{ E-06} = \underline{.29482} \text{ (c)}$$

For Item d: (%VT for Cold Starts only)

$$(L) \frac{2.630 - (K) 1.934}{3.59 \times (\%VT) .482} = \underline{.696} \text{ (w)}$$

$$\times 3.59 \times (\%VT) .482 \times (w) .696$$

$$= \underline{1.2043445} \text{ (x)}$$

$$(x) \frac{1.2043445 \times (VT) 3.92 \times (VP) 1046}{1.10132 \text{ E-06}} = \underline{.0054385} \text{ (d)}$$

$$\times 1.10132 \text{ E-06} = \underline{.0054385} \text{ (d)}$$

For Item e: (%VT for Hot Starts only)

$$(C) \frac{2.802 - (A) 1.727}{3.59 \times (\%VT) .518} = \underline{1.075} \text{ (v)}$$

$$\times 3.59 \times (\%VT) .518 \times (v) 1.075$$

$$= \underline{1.9990915} \text{ (z)}$$

(calculation continued on next page)

Soak Emissions, and Crankcase Emissions, which, in total (combined with the standard HC emissions), equal the "Total Hydrocarbon Emissions", Item 1.

Formulas:

NOTES 3-4.

Items Y, Z, a. Hot stabilized emissions are calculated in the same manner for HC, CO and NO_x emissions. Calculation 4 must be completed prior to Calculation 3.

NOTE 4.

$$\begin{aligned} \text{EH} &= 100\% \text{ Hot Stabilized (gm/mi)} \times \% \text{ Ttl @ 25.6mph} = y \\ &100\% \text{ Hot Stabilized (gm/mi)} \times \% \text{ Ttl @ 45 mph} = x \\ &100\% \text{ Hot Stabilized (gm/mi)} \times \% \text{ Ttl @ 55 mph} = w \end{aligned}$$

$$\text{Sum (w,x,y)} = \text{EH}$$

NOTE 3.

$$\text{EXR} = \text{EH} \times \text{VP} \times 3.01732 \text{ E-09}$$

Calculations:

For Item Y:

$$\begin{aligned} \text{(A)} \quad & \underline{1.727} \times (\% \text{ Ttl @ 25.6 mph}) \quad \underline{.47} = \underline{.81169} \\ \text{(D)} \quad & \underline{1.121} \times (\% \text{ Ttl @ 45 mph}) \quad \underline{.08} = \underline{.08968} \\ \text{(E)} \quad & \underline{1.028} \times (\% \text{ Ttl @ 55 mph}) \quad \underline{.45} = \underline{.4626} \\ & \text{SUM} = \underline{1.36397} \text{ (p)} \end{aligned}$$

$$\begin{aligned} \text{(p)} \quad & \underline{1.36397} \times (\text{VMT}) \quad \underline{9832400} \\ & \times 3.01732 \text{ E-09} = \underline{.040466} \text{ tons per day (Y)} \end{aligned}$$

For Item Z:

$$\begin{aligned} \text{(F)} \quad & \underline{18.394} \times (\% \text{ Ttl @ 25.6 mph}) \quad \underline{.47} = \underline{8.64518} \\ \text{(I)} \quad & \underline{10.473} \times (\% \text{ Ttl @ 45 mph}) \quad \underline{.08} = \underline{.83784} \\ \text{(J)} \quad & \underline{9.169} \times (\% \text{ Ttl @ 55 mph}) \quad \underline{.45} = \underline{4.12605} \\ & \text{SUM} = \underline{13.60907} \end{aligned}$$

$$\begin{aligned} \text{(q)} \quad & \underline{13.60907} \times (\text{VMT}) \quad \underline{9832400} \\ & \times 3.01732 \text{ E-09} = \underline{.40375} \text{ tons per day (Z)} \end{aligned}$$

For Item a:

$$\begin{aligned} \text{(K)} \quad & \underline{1.934} \times (\% \text{ Ttl @ 25.6 mph}) \quad \underline{.47} = \underline{.90898} \\ \text{(N)} \quad & \underline{2.264} \times (\% \text{ Ttl @ 45 mph}) \quad \underline{.08} = \underline{.18112} \\ \text{(O)} \quad & \underline{2.514} \times (\% \text{ Ttl @ 55 mph}) \quad \underline{.45} = \underline{1.1313} \\ & \text{SUM} = \underline{2.2214} \end{aligned}$$

For Item e -- continued:

$$(z) \frac{1.9940915}{\text{}} \times (\text{NT}) \frac{3.92}{\text{}} \times (\text{VP}) \frac{1046}{\text{}} \\ \times 1.10132 \text{ E-06} = \underline{.0090274} \text{ (e)}$$

For Item f: (%VT for Hot Starts only)

$$(H) \frac{22.107}{\text{}} - (F) \frac{18.394}{\text{}} = \underline{3.713} \text{ (aa)}$$

$$3.59 \times (\%VT) \frac{.518}{\text{}} \times (\text{aa}) \frac{3.713}{\text{}} \\ = \underline{6.9047691} \text{ (bb)}$$

$$(bb) \frac{6.9047691}{\text{}} \times (\text{NT}) \frac{3.92}{\text{}} \times (\text{VP}) \frac{1046}{\text{}} \\ \times 1.10132 \text{ E-06} = \underline{.03118} \text{ (f)}$$

For Item g: (%VT for Hot Starts only)

$$(M) \frac{2.462}{\text{}} - (K) \frac{1.934}{\text{}} = \underline{.528} \text{ (cc)}$$

$$3.59 \times (\%VT) \frac{.518}{\text{}} \times (\text{cc}) \frac{.528}{\text{}} \\ = \underline{.98187936} \text{ (dd)}$$

$$(dd) \frac{.98187936}{\text{}} \times (\text{NT}) \frac{3.92}{\text{}} \times (\text{VP}) \frac{1046}{\text{}} \\ \times 1.10132 \text{ E-06} = \underline{.0044339} \text{ (g)}$$

NOTE 7.

Items h-k. Evaporative and Crankcase Emissions.

Formulas:

Diurnal Emissions: DIHC; Hot Soak: HSHC; Crankcase: CCHC.

$$\text{DIHC} = \text{CEF}_{\text{di}} \times \text{VP} \times 1.10132 \text{ E-06}$$

$$\text{HSHC} = \text{CEF}_{\text{hs}} \times \text{VP} \times 1.10132 \text{ E-06}$$

$$\text{CCHC} = \text{CEF}_{\text{cc}} \times \text{VP} \times 1.10132 \text{ E-06}$$

For Item h:

$$(P) \frac{4.656}{\text{}} \times (\text{VP}) \frac{1046}{\text{}} \times 1.10132 \text{ E-06} \\ = \underline{.0053636} \text{ (h)}$$

For Item i:

$$(Q) \frac{5.113}{\text{}} \times (\text{VP}) \frac{1046}{\text{}} \times 1.10132 \text{ E-06} \\ = \underline{.0058901} \text{ (i)}$$

For Item k:

$$(R) \frac{0.019}{\text{}} \times (\text{VP}) \frac{1046}{\text{}} \times 1.10132 \text{ E-06} \\ = \underline{.000021888} \text{ (k)}$$

NOTE 8.

Item l. Total hydrocarbon emissions calculation.

Formula:

$$\text{THC} = \text{EX}_{\text{hc}} + \text{DIHC} + \text{HSHC} + \text{CCHC}$$

(Note 8 -- continued)

Calculation:

$$\begin{array}{r} \text{(M)} \underline{.040466} \\ \text{(b)} \underline{.021832} \\ \text{(e)} \underline{.0090274} \\ \text{(h)} \underline{.0053636} \\ \text{(i)} \underline{.0058901} \\ + \text{(k)} \underline{.0000215558} \\ \hline \underline{.08260098} \quad \text{(l)} \end{array}$$

NOTE 9.

Item m. Particulate Matter Emissions.

Formula:

$$\text{PART} = \text{CEF}_{\text{pt}} \times \text{VMT} \times 3.01732 \text{ E-09}$$

Calculation:

$$\begin{array}{l} \text{(S)} \underline{.0324} \times \text{(VMT)} \underline{9832400} \\ \times 3.01732 \text{ E-09} = \underline{.0096123} \quad \text{(m)} \end{array}$$

NOTE 10.

Item n. Oxides of Sulphur (SO_x) Emissions.

Formula:

$$\text{SO}_x = \text{CEF}_{\text{so}} \times \text{VMT} \times 3.01732 \text{ E-09}$$

Calculation:

$$\begin{array}{l} \text{(U)} \underline{0.101} \times \text{(VMT)} \underline{9832400} \\ \times 3.01732 \text{ E-09} = \underline{.0029964} \quad \text{(n)} \end{array}$$

NOTE 11.

Item o. Lead Emissions (Pb).

Formula:

$$\text{PB} = \text{CEF}_{\text{pb}} \times \text{VMT} \times 3.01732 \text{ E-09}$$

Calculation:

$$\begin{array}{l} \text{(T)} \underline{0.022} \times \text{(VMT)} \underline{9832400} \\ \times 3.01732 \text{ E-09} = \underline{.00065268} \quad \text{(o)} \end{array}$$

Pollutant	Speed		100% Hot Stabilized		Cold Starts		Hot Starts	
	(mph)	% Ttl	(gm/mile)		%VT=		%VT=	
HC	25.6	.47	A	1.727	B	4.521	C	2.502
	45	.03	D	1.121				
	55	.45	E	1.028				
CO	25.6	.47	F	18.394	G	56.124	H	22.107
	45	.08	I	10.473				
	55	.45	J	9.119				
NO _x	25.6	.47	K	1.934	L	2.630	M	2.462
	45	.08	N	2.264				
	55	.45	O	2.514				
Evaporative, Crankcase and Particulate CEF (ref: Appendix E)								
Diurnal	P	1.646	gm/day	Part. Mat.	S	0.324	gm/mile	
Hot Soak	Q	5.113	gm/trip	Lead CEF	T	0.022	gm/mile	
Crankcase	R	0.017	gm/mile	SO _x CEF	U	0.101	gm/mile	
Vehicle Trips per day	Average Annual Mileage			V	9400	mi		
	% Vehicle Growth Rate			W	/	%		
VT	3.42	In-Use Vehicle Popul.-1975			X	/	(1975)	

Current Vehicle Usage		Note	Amount	
VP	In-Use Vehicle Population	1	1046	(current)
VMT	Vehicle Miles Traveled	2	9532400	(current year)
Vehicle Emissions		Note	Amount	Units
Hot Stabilized	HC Hot Stabilized	3-4	.040466	tons/day
	CO Hot Stabilized	3-4	.40375	tons/day
	NO _x Hot Stabilized	3-4	.065903	tons/day
Cold Start	HC Cold Start	5-6	.021832	tons/day
	CO Cold Start	5-6	.29482	tons/day
	NO _x Cold Start	5-6	.0054385	tons/day
Hot Start	HC Hot Start	5-6	.0090274	tons/day
	CO Hot Start	5-6	.03118	tons/day
	NO _x Hot Start	5-6	.0044339	tons/day
Diurnal Emissions		7	.0053636	tons/day
Hot Soak Emissions		7	.0058901	tons/day
Crankcase Emissions		7	.000021888	tons/day
TOTAL HYDROCARBON EMISSIONS		8	.05260098	tons/day
Particulate Matter Emissions		9	.0096123	tons/day
Oxides of Sulphur (SO _x) Emissions		10	.0024964	tons/day
Lead Emissions (Pb)		11	.00065268	tons/day

HEAVY-DUTY
GAS VEHICLES (HDG)

Total Hydrocarbons (HC)

CO - Hot Stabilized

Cold Start

Hot Start

NO_x - Hot Stabilized

Cold Start

Hot Start

Hydrocarbons	Carbon Monoxide	Nitrous Oxide
1 2.863		
	Z 48.413	
	C -	
	F -	
		a 3.040
		d -
		g -

HEAVY-DUTY DIESEL VEHICLES (HDD)

Total Hydrocarbons (HC)

CO - Hot Stabilized

Cold Start

Hot Start

NO_x - Hot Stabilized

Cold Start

Hot Start

Hydrocarbons	Carbon Monoxide	Nitrous Oxide
1 .886		
	Z 5.654	
	C -	
	F -	
		a 7.667
		d -
		g -

MOTORCYCLES (MCY)

Total Hydrocarbons (HC)

CO - Hot Stabilized

Cold Start

Hot Start

NO_x - Hot Stabilized

Cold Start

Hot Start

Hydrocarbons	Carbon Monoxide	Nitrous Oxide
1 .422		
	Z .750	
	C .148	
	F .028	
		a .029
		d .001
		g .002

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TOTAL EMISSIONS

4.171	54.993	10.739
17.881	166.401	16.112
22.052	221.394	26.851

SUMMARY OF VEHICLE EMISSION ESTIMATES (year 1981)

	SO _x	Particulate Matter	Lead
Light-Duty Passenger Veh.	0.458	1.476	0.100
Light-Duty Trucks	0.157	0.483	0.034
Medium-Duty Trucks	0.025	0.059	0.008
Heavy-Duty Gas Vehicles	0.138	0.394	0.061
Heavy-Duty Diesel Veh.	0.907	0.651	-
Motorcycles	0.002	0.008	0.001
TOTALS	1.687	3.065	0.209
	TOTAL Sulfur Oxides (tons/day)	TOTAL Particulate Matter (tons/day)	TOTAL Lead Emissions (tons/day)

San Joaquin
County

22.052	221.394	26.851
TOTAL Hydrocarbons (tons/day)	TOTAL Carbon Monoxide (tons/day)	TOTAL Oxides of Nitrogen (tons/day)

City of Lodi - 9.9% of S.J.Co.

Fillyay Ranch - .40% of City of Lodi

DECLARATION OF MAILING

On August 7, 1981, in the City
of Lodi, San Joaquin County, California,

I deposited in the United States Mail,
envelopes with first-class postage prepaid
thereon, containing a copy of the Notice
attached hereto, marked Exhibit "A"; said
envelopes were addressed as is more
particularly shown on Exhibit "B" attached
hereto.

There is a regular daily communication by
mail between the City of Lodi, California,
and the places to which said envelopes were
addressed.

I declare under penalty of perjury that the
foregoing is true and correct.

Executed on August 7 1981,
at Lodi, California.

Doreen Gangel
Deputy City Clerk

NOTICE OF PUBLIC HEARING OF THE CITY COUNCIL OF
THE CITY OF LODI TO CONSIDER THE CITY PLANNING
COMMISSION'S RECOMMENDATION THAT THE CITY COUNCIL
CERTIFY AS ADEQUATE THE FILLEY RANCH FINAL
ENVIRONMENTAL IMPACT REPORT

NOTICE IS HEREBY GIVEN that on Wednesday, September 2, 1981
at the hour of 8:00 p.m. or as soon thereafter as the matter
may be heard, the Lodi City Council will conduct a public hearing
in the Council Chambers, City Hall, 221 West Pine Street, Lodi,
California, to consider the Planning Commission's recommendation
that the City Council certify as adequate the Filley Ranch
Final Environmental Impact Report.

Information regarding this item may be obtained in the
office of the Community Development Director at 221 W. Pine
Street, Lodi, California. All interested persons are invited
to present their views either for or against the above proposal.
Written statements may be filed with the City Clerk at any time
prior to the hearing scheduled herein and oral statements may
be made at said hearing.

Dated:

By Order of the City Council

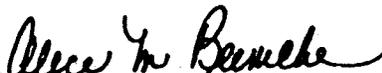

ALICE M. REIMCHE
City Clerk

EXHIBIT "B"

Baumbach-Piazza
221 W. Oak
Lodi, CA 95240

Thomas Development
P.O. Box 28B
Lodi, CA 95240

CITY COUNCIL MEETING

August 3, 1981

KENNEDY RANCH
EIR

Following introduction of the matter by the City Clerk, Council took the following actions:

On motion of Councilman Pinkerton, Murphy second, Council set for Public Hearing on August 19, 1981, consideration of the City Planning Commission's recommendation that the City Council certify as adequate the Kennedy Ranch Final Environmental Impact Report.

KENNEDY RANCH

DRAFT

ENVIRONMENTAL IMPACT REPORT

EIR 81-1

Prepared by:

**City of Lodi
Community Development Department
221 W. Pine Street
Lodi, CA 95240**

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LAST DATE TO COMMENT

JUL 9 1984

KENNEDY RANCH VICINITY MAP
029-030-34 & 35

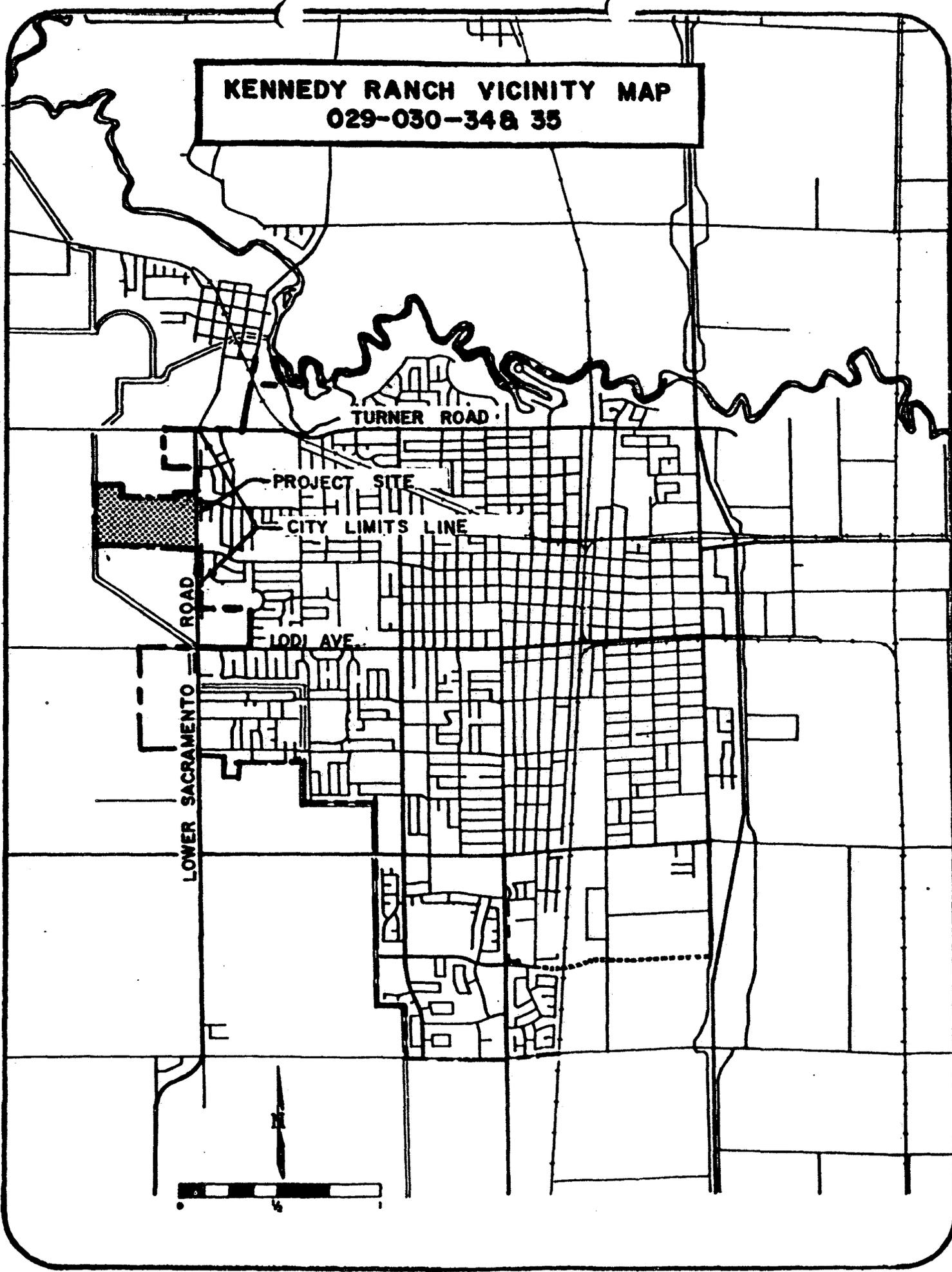
TURNER ROAD

PROJECT SITE

CITY LIMITS LINE

LODI AVE.

LOWER SACRAMENTO ROAD



SUMMARY

KENNEDY RANCH EIR

PROJECT DESCRIPTION

The project is a 88[±] acre residential and commercial development. The project will contain 217 single-family lots, 358[±] cluster homes and a 3 acre commercial site. The project will also contain a 9.2 acre recreational lake that will also function as a temporary storm drainage basin.

The subject site is currently designated low-density residential in the Lodi General Plan. This designation permits an overall residential density of 1-10 units per acre. The General Plan will have to be amended to permit the 3 acres of commercial use. The parcel is currently zoned U-H, Unclassified Holding and will require a rezoning to P-D, Planned Development.

LOCATION

The project will be located on the west side of Lower Sacramento Road, 1/2 mile north of Lodi Avenue and 1/4 mile south of Turner Road. The parcels are designated as San Joaquin County Assessor's parcels 029-030-34 and 029-030-35.

ENVIRONMENTAL IMPACTS

1. Loss of 88[±] acres of prime agricultural soil. Parcel is Class I soil made up of Hanford Sandy Loam; well suited for a variety of agricultural uses. Development will mean loss of agricultural use of land.

Urbanization could affect adjacent agricultural parcels by restricting normal spraying and cultivation operations. Vandalism, trespassing and homeowner's complaints could increase.

2. Traffic will increase on Lower Sacramento Road, currently the only access to the property. The project will generate approximately 5,000 vehicle trips per day when fully developed.
3. Air pollution will increase slightly as a result of increased vehicular traffic. Increase will be less than 1% of San Joaquin County emissions.
4. Residential units adjacent to Lower Sacramento Road will be subject to noise levels that exceed recommended levels for residential units.
5. Approximately 467 additional school-aged children could be added to the already overcrowded L.U.S.D. Providing adequate classroom space could be a problem.

MITIGATING MEASURES

1. No real mitigation possible for loss of agricultural land. Entire Lodi area is prime agricultural land. Property is within the General Plan area for the City of Lodi and is designated for residential use.

2. Additional traffic can be mitigated by proper design and construction of the street system. Limited access to Lower Sacramento Road.
3. Noise levels in residential structures can be reduced by shielding the units with a sound wall along Lower Sacramento Road. Also design features can be built into the units (insulation, double-glazed windows, etc.) to reduce noise levels inside of the units.
4. Impaction of schools can be mitigated by the developer financially assisting the L.U.S.D. to provide additional classroom space. The developer has signed an agreement with the L.U.S.D. to pay an agreed upon amount to the school district.

C. ALTERNATIVE TO THE PROJECT

1. "No build" alternative. Eliminates all impacts by leaving the site in agricultural use.
2. Different mix of residential and/or commercial uses. Does not significantly improve or change the environmental impacts of the proposed project. Loss of agricultural land is not affected.

D. IRREVERSIBLE AND LONG-TERM IMPACTS

Loss of agricultural land is permanent and irreversible.

E. CUMULATIVE IMPACTS

1. Loss of agricultural land is cumulative. In the past years, several hundred acres of land have been developed with various residential, commercial and industrial projects. Because the City of Lodi is entirely surrounded by prime agricultural land, all future projects will utilize agricultural land.
2. There is a cumulative impact on the L.U.S.D. The L.U.S.D. includes much of northern San Joaquin County, including the City of Lodi and north Stockton. It is estimated that there is the potential for an additional 5,000 students in the project currently approved and in some stage of development. This includes Lodi, north Stockton and the unincorporated County areas. This would seriously affect the L.U.S.D.

The L.U.S.D. is working with developers in the north County area to assist the District financially to provide additional classroom space. Many, including the Kennedy Ranch developer, have signed agreements with the District.

Additionally, there is a Countywide Task Force working on permanent solutions to the school financing problem.

F. GROWTH-INDUCING IMPACT

The project will have a growth-inducing impact on that section of Lodi. The project will open up the area west of Lower Sacramento Road to development. Currently, that area has limited non-agricultural development. The project could cause adjacent properties to also develop.

Additionally, the installation of utilities west of Lower Sacramento Road could encourage development of the area. The lake/basin concept may be utilized by other property owners and developers.

KENNEDY RANCH

I. PROJECT

A. PROJECT DESCRIPTION

The applicant is proposing an 88[±] acre residential and commercial development located in the western section of Lodi. The project will contain 217 single family lots surrounding a 9.9[±] acre lake. The project also includes two cluster home parcels totaling 23.9[±] acres with a maximum of 358 units of housing, and a 3 acre commercial site.

The lake, in addition to serving as a recreational feature, will also serve as a temporary storage facility for storm drainage runoff. The lake will serve a storm drainage function until the city can construct a permanent basin facility to serve that area of Lodi.

The project will require a general plan amendment, a rezoning to Planned Development, and an approval of a specific development plan.

B. SITE LOCATION & DESCRIPTION

The 88[±] acre project site is located in the northwest section of Lodi. The property is bordered by Lower Sacramento Road on the east and the Woodbridge Irrigation District Canal (W.I.D.) on the west. Turner Road is $\frac{1}{2}$ mile north of the subject property and Lodi Avenue is $\frac{1}{2}$ mile to the south. The property is listed as San Joaquin County Assessor's parcels 029-030-34 and 029-030-35.

The project property is currently in agricultural production. Approximately $\frac{2}{3}$ of the property is planted in grape vineyards with the remaining $\frac{1}{3}$ planted in field crops. There is also a farm residence located on the property.

The area surrounding the project site is primarily agricultural to the north, west and south. The area to the east, across Lower Sacramento Road, is developed with residential subdivisions. There are several non-agricultural non-residential operations in the general area of the project. At the southwest corner of Turner and Lower Sacramento Road is a large vacant office building that previously housed the RCA Global Communications transmitting operation. The complex is currently up for sale. At the southwest corner of Lodi Avenue and Lower Sacramento Road is the Westgate Shopping Center, a 10 acre commercial shopping center. Finally, west of the project property, across the W.I.D. canal, is Mainland Nursery, a large wholesale commercial nursery/greenhouse operation.

II. DESCRIPTION OF ENVIRONMENTAL SETTING

A. TOPOGRAPHY

The project site and the surrounding area are generally flat with an elevation of between 38-41 feet above mean sea level. The land has been agricultural production for many years and some land leveling was done sometime in the past to facilitate irrigation. The parcel contains no natural drainage channels or other topographic features.

B. HYDRAULICS

There are no natural surface water features on the project site. A man-made structure, the W.I.D. canal carries irrigation water along the west property line. The canal serves as a source of irrigation water for this and other agricultural properties. The Mokelumne River is located approximately a mile to the north. This property is not within the 100 year flood plain of the river.

Except for agricultural properties served by irrigation canals, the source of water in the Lodi area is from groundwater pumped to the surface. There are existing wells on the site which are currently being used for agricultural and domestic water supplies.

The proposed project includes a 6.1 acre recreational lake. The lake will also serve as a temporary storm drainage holding facility until the City can construct a permanent basin in the area. The source of water for the lake will be the existing agricultural well and water from the W.I.D. canal. The developer has an agreement with the W.I.D. to use district water during any period that the W.I.D. has surplus water available. The agricultural well will serve as a backup source of water for the lake.

The 6.1 acre lake will contain approximately 30-37 acre feet of water, based on an average depth of 5-6 feet. It is estimated that an additional 15-20 acre feet will be required to replace water loss to evaporation.

The City Water Department reports that the average daily water consumption per capita in Lodi is 270 gallons per day. This figure includes commercial and unmetered industrial uses as well as residential uses.

The following water consumption chart breaks down the various water uses by acre feet/acre year for different development zones.

Single family residence	3.1 acre feet/acre/year
Multiple family residence	2.4 acre feet/acre/year
Commercial residence	2.3 acre feet/acre/year
Office/Professional	1.4 acre feet/acre/year

The proposed development has the following number of acres in the above described uses.

Use	<u>No. of Acres</u>	<u>No. of Acre Ft./ Acre/Year</u>	<u>Total No. of Acre feet/Acre Year</u>
Single-family	53.86	3.1	167.0
Multi-family	20.30	2.4	48.7
Commercial	3.0	2.3	6.9
			<u>222.6</u>

The combined residential and commercial acreages will use approximately 222.6 acre feet per year. Adding the 15-20 acre feet of water needed to replenish the lake annually, the total annual water use for the project will be approximately 238-243 acre feet.

Using figures provided by the San Joaquin County Farm Advisor for agricultural water use, we can make some water use comparisons. The average vineyard requires approximately 35 inches of water annually. Natural rainfall provides approximately 9 inches of the annual demand. The remaining 26 inches is supplied by irrigation. Converted to acre feet, each acre of vineyard will use approximately 3 acre feet of water per year.

The 88 acres of the project x 3 acre feet = approximately 264 acre feet of water required by the agricultural operation annually. This is very close to the 238-243 acre feet required annually by the proposed development.

C. SOIL CONDITIONS

The soil type on the project site is Hanford Sandy Loam. The surface soil of the Hanford Sandy Loam consists of an 8 to 14 inch layer of light, grayish brown, soft friable sandy loam which has a distinct grayish cast when thoroughly dry. The material grades downward into a subsoil of slightly darker and richer brown soil.

Agriculturally, Hanford Sandy Loam is one of the best soils. It is used in the production of orchard, vineyard and other intensive perennial crops. In the Lodi area this soil is primarily used for grape vineyards. The soil conservation service rates Hanford Sandy Loam as Class 1 (the highest rating) and the Storie Index rates it at 95 percent for the ability to produce crops.

The soil is also rated good for construction purposes. The bearing capacity of the soil is 2,000 lbs per square foot. It does not have expansive qualities and will support most structural building loads.

The 1978 edition of the Uniform Building Code designates Lodi as being in Seismic Zone 3, one that requires the strictest design factors for lateral forces.

The project will contain a man-made lake. The lake will be excavated and the soil used on-site. Soils studies done by Moore and Taber, geologist and engineers for Lakeshore Village, indicate the lake will not create

soil problems if constructed according to sound engineering practices. (Moore & Taber Report for Lakeshore Village EIR, 1980. Available at Community Development Department, City of Lodi).

D. SEISMIC HAZARD

Earthquake faults are not found in the immediate vicinity of the subject parcel. The nearest faults are approximately 14 miles to the south and west. The most probable sources of strong ground motion are from the San Andreas Fault, Hayward Fault, the Livermore Fault and the Calaveras Fault, all located in the San Francisco Bay area.

E. BIOTIC CONDITIONS

The site has been cleared of natural vegetation and replaced with cultivated crops. The property currently contains grape vineyards and field crops. The type of plants and wildlife found on the site are common to lands in the agricultural areas surrounding Lodi. There are no known rare or endangered species of plant or animal located on the project site.

F. ATMOSPHERIC CONDITIONS

Air Quality in the San Joaquin Valley is affected by a combination of climatology and topography. Topographically, San Joaquin County is located approximately in the middle of the Sacramento/San Joaquin Valley. The valley has a trough-like configuration that acts as a trap for pollutants. Mountain ranges surrounding the valley restrict horizontal air movement and frequent temperature inversions prevent vertical air movement. The inversion forms a lid over the valley trough, preventing the escape of pollutants.

Climatology also affects the air quality. High summer temperatures accelerate the formation of smog. This, combined with summer high pressures which create low wind speeds and summer temperature inversions to create the potential for high smog concentrations.

San Joaquin County air quality is not in compliance with National Air Quality Standards.

<u>Pollutant</u>	<u>Nat. Air Quality Standard</u>	<u>San Joaquin Air Quality</u>
Ozone	0.12 ppm (1 hr. avg)	0.17 ppm
Carbon Monoxide	9.0 ppm (8 hr. avg)	14.4 ppm
Total suspended particulate matter	75 ug/m ³ (AGM)	81 (highest AGM)
Sulfure-dioxide	365 ug/m ³ (24 hr avg) 80 ug/m ³ (annual avg)	no measurement

The primary source of air pollution generated by the development will be from vehicular traffic. The trip generation estimates are based on data from the Institute of Traffic Engineers.

Single-Family Residential:

Based on 9 vehicle trip ends per unit, the 219 units will generate 1971 vehicle trips per day.

Attached Housing Units:

Based on 7 vehicle trip ends per unit, the 304 units will generate 2128 vehicle trips per day.

Neighborhood Commercial:

Based on 300 vehicle trips per acre, the 3 acre site will generate 900 vehicle trips.

Total vehicle trip generation will be 4,999 vehicle trips per weekday generated by the proposed development.

There is no specific data for the City of Lodi, so information was generated based on the data for San Joaquin County. The City of Lodi was assumed to generate 9.9% of the total for San Joaquin County. The following emission data was generated:

	*SOx	*Particulate Matter	*Lead	*Hydro-Carbons	*CO	*NOx
San Joaquin County	1.687	3.065	0.209	22.052	221.394	26.851
City of Lodi 9.9% of S.J.C.	.167	.303	.021	2.183	21.918	2.658
Kennedy Ranch 2 cars per house	.011	.020	.001	.143	1.439	.175
Kennedy Ranch 1½ cars/house	.008	.015	.001	.108	1.085	.132

*Figures in Tons/day

Kennedy Ranch would account for less than 1% of the total for San Joaquin County. This is a worst-case situation and the figure for Kennedy Ranch is probably higher than what will actually be generated. (See Appendix I for Sample Work Sheet).

G. NOISE

The primary source of noise in the area of the proposed project will be vehicular traffic on Lower Sacramento Road. Lower Sacramento Road serves as a major north-south collector street connecting the north San Joaquin County area with Lodi and Stockton.

City of Lodi noise contour maps based on 1995 traffic projections show the following:

70 decibels to 70' of the roadway

65 decibels to 170' of the roadway

Readings are based on Ldn noise criteria.

The San Joaquin County Noise Element sets forth the following noise guidelines for residential development:

Less than 60 decibels	=	Acceptable
60 - 69 decibels	=	Conditionally acceptable
70 - 74 decibels	=	Normally unacceptable
75 decibels or greater	=	Clearly unacceptable

This data indicates that noise levels up to 70' of the roadway are unacceptable and noise levels up to 170' of the roadway are classified as conditionally acceptable:

As currently purposed, a portion of the parcel designated for cluster housing units will fall within the high noise area. The remaining frontage on Lower Sacramento Road is designated for commercial use.

III. UTILITIES

A. STORM DRAINAGE

The City of Lodi operates a system of interconnected storm drainage basins to provide temporary storage for peak storm runoff. The runoff is stored until the water can be pumped into the W.I.D. canal at a controlled rate. The City does not currently have a basin to serve the area of the Kennedy Ranch project.

In order to provide storm drainage for the project, the applicant is proposing to use the recreational lake as a temporary storm drainage basin. The lake on the subject property will pond the storm drainage from the project during periods of peak runoff. As the storm subsides, the runoff from the lake will be pumped into the City's storm drainage system and eventually pumped into the Mokelumne River.

In addition to the lake, the project will require the construction of a major line connecting the project lake to the City system. The point of connection would be at West Elm Street and Lower Sacramento Road where the City's line currently ends.

The lake will be designed to accommodate the project runoff from a 100 year storm. The design will permit a rise of 2-3 feet in the level of the lake during periods of heavy rainfall.

The lake only provides a temporary solution to the storm drainage. At some future date, a permanent storm drainage basin will be constructed south of the project site. When this is done, the project site will then serve only a recreational purpose. Storm water from the project will be stored in the City basin. The developer is providing a 0.9 acre parcel along the south property line to provide frontage for the basin site and to provide a location for a lift station and well site.

B. SANITARY SEWER

The project will be served by the City of Lodi sanitary system. There is currently a 15" line located in Lower Sacramento Road which will service

the property. The City system is adequate to handle the project sewage.

C. DOMESTIC WATER

Domestic water will be provided by the City of Lodi. There are existing lines on Lower Sacramento Road which will be extended to serve the project. In addition, the City may request a well site on the project property to serve the area. The well will be built and maintained by the City as a part of the City's water system.

Water for the filling and recharge of the recreational lake will not come from the domestic water system. The developer has an agreement with the W.I.D. canal to use canal water for this purpose during years that the W.I.D. has surplus water. There is also a private irrigation well on the property that could be used for this purpose.

D. ELECTRICITY AND NATURAL GAS

Electricity will be provided by the City of Lodi and natural gas will be provided by P.G. & E. Both services can be adequately supplied to the project with normal line extensions.

IV. COMMUNITY SERVICES (also see Atmospheric section)

A. STREETS AND CIRCULATION

The street access to the proposed project will be from Lower Sacramento Road. Until properties to the north or south develop, this will be the only access to the property. The street system will be designed to interconnect with future project to the north and south. When these properties are developed, the north-south streets will connect with Elm Street and Turner Road, providing increased access to the property.

Dedications will be made on Lower Sacramento Road to provide an 80' right-of-way with full street improvements along the property frontage. There is an existing frontage road on the east side of Lower Sacramento Road. The specific plan for Lower Sacramento Road also calls for a frontage road along the west side of the street. The developer is requesting an amendment of the specific plan to eliminate the frontage road. Instead, he is proposing to restrict access by limiting driveway access to Lower Sacramento Road on the commercial piece and no direct access to Lower Sacramento Road from the cluster home parcel.

The project will have two streets with 60' right-of-way, the east-west street coming off of Lower Sacramento Road, and the north-south street running between the cluster homes and the single-family lots. These will be the collector major traffic carriers in the project.

The remaining streets will have standard residential 55 foot right-of-way and will carry neighborhood traffic.

B. POLICE AND FIRE PROTECTION

The City of Lodi will provide police and fire protection to the proposed development.

The Chief of Police has indicated that the department has no "level of reserve" which should be maintained in the City Department. He indicates that the additional service for the subject property will come from re-ordering of departmental enforcement priorities. The Chief notes, however, that this new development and other areas of the City will receive uniform treatment with regard to service levels.

The Chief of Police will review the project plans to insure that the street lighting system and building and street layout permit adequate security surveillance by police patrol units.

The nearest fire station to the subject development is the main station at Elm and Church Streets. The Fire Chief will review all plans to assure adequate fire protection. He will work with the developer on the number and location of fire hydrants and will review the project plan to insure adequate accessibility for fire equipment.

C. SCHOOLS

The Lodi Unified School District (LUSD) is experiencing a problem of student overcrowding in many of its schools. Many of the schools are at maximum capacity and the District must transport students out of their normal attendance area to accommodate all the students.

In order to defray the costs of construction of needed new school facilities, the City of Lodi passed City Ordinance No. 1149. This ordinance, passed pursuant to Senate Bill 201, was enacted prior to the passage of Proposition 13 of 1978. The ordinance provided for the City Building Department to collect a "fee" of \$200 per bedroom in new residential developments. Currently, lawsuits are pending regarding the legality of this type of levy. The monies collected under the Lodi ordinance are currently being impounded. The School District may or may not be able to use the impounded funds and may not be able to continue the levy pending the outcome of the litigation.

The developer has a recorded agreement with the LUSD to provide some type of payment to the school district. If Ordinance No. 1149 is declared unconstitutional, the developer has agreed to pay directly to the District a monetary amount equal to the fees established by No. 1149.

The agreement also states that the LUSD can request dedication of a school site in lieu of payment of the fees. This would be at the discretion of LUSD.

The proposed project will contain approximately 575 residential units. The number of students is estimated as follows:

<u>Housing Type</u>	<u>No. of Units</u>	<u>Child Per Unit</u>	<u>Total</u>
Single Family homes	217	1.0	217
Cluster homes	358	0.7	250
TOTAL CHILDREN			<u>467</u>

The school district allocates children in new developments proportionately among their thirteen grade system.

It can be concluded that the proposed development does not, in itself, warrant construction of a school or schools; however, in combination with existing need and future development in the project area, the need for new schools is inevitable.

D. RECREATION

The proposed project provides a 9.2[±] acre private lake for use by the homeowners. The lake could be used for non-motorized boating and fishing. A one-half acre recreation area has been set aside adjacent to the east end of the lake. The Homeowner's Association will be responsible for the maintenance and regulation of the lake.

Additionally, there will be a permanent storm drainage basin/park immediately south of the project which will be constructed sometime in the future. When constructed this will provide a 20-30[±] acre park and open space area built in conjunction with the basin.

E. SOLID WASTE

Existing collection of residential solid waste within the City of Lodi is on a weekly basis by a franchise collector. At the present time waste is hauled directly to the Harney Lane Disposal site, a Class II-2 landfill, by the collector; however, future plans include a transfer station and expanded resource recovery facilities at the company's headquarters in the eastside industrial area. Current and proposed operations are consistent with the San Joaquin County Solid Waste Management Plan, adopted June, 1979. The subject area is within County Refuse Service Number 3 and the North County Disposal Area, which is served by the Harney Lane site.

During the Fall season, City crews regularly pick up leaves, which are currently being taken to a City site approximately 2½ miles north of the subject area, where they are picked up by a private contractor for composting. Alternative disposal is direct haul to Harney Lane.

The subject area was within the planned urban growth area of the City of Lodi at the time the county Solid Waste Management Plan was developed and adopted. Solid waste volume projections used in the plan were based on future urban development, which included the subject area. Following are solid waste estimates based on planned and projected residential densities.

The volume of solid waste which will be generated by the proposed commercial area (compared to the area developing residentially) is considered insignificant in terms of its impact on the existing and future disposal and collection systems.

The number of units built in the project will be 575. The City's franchise collector estimates that each residential unit in the City of Lodi generates an average of 39 pounds of solid waste per week.

575 units x 39 pounds/week = 22,425 estimated pounds of solid waste per unit per week.

V. SPECIAL DISTRICTS

The proposed project will affect one special district - the Woodbridge Irrigation, which has a canal along the west property line of the project. The W.I.D. will be affected in two ways.

First, the W.I.D. will be providing surplus canal water to fill and maintain the project lake. The developer has an agreement with the W.I.D. to utilize district water during years when the W.I.D. has a surplus of water after all their agricultural commitments have been met. The developer will be assessed to some degree upon fee for the water.

Secondly, because the W.I.D. canal is an open ditch, the District is concerned with possible accidents involving their canal. They have requested that the developer be required to construct a 6' chainlink fence along the project boundary adjacent to the canal. The fence would serve as a barrier between the project and the canal. This could be done as part of the requirements of the project approval or as a condition of the subdivision map. This would have to be approved by the City of Lodi.

VI. HISTORIC AND ARCHEOLOGICAL SITE

There are no sites or buildings on the subject property that are designated as historical landmarks by any Federal, State or local agencies. The nearest recorded landmarks are in the community of Woodbridge, 1/2 mile to the north.

Although there are no recorded archeological surveys of the site, it is doubtful that there are any archeological sites on the property. Known Indian sites in the Lodi area are usually located along the banks of the Mokelumne River, a mile to the north.

The property has been extensively cultivated for many years. There is no record of any items of antiquity ever being unearthed on the site. Additionally, the extensive digging and plowing to cultivate the vineyards and the trenching to install irrigation lines would have destroyed any archeological material.

If during construction, some article of possible archeological interest should be unearthed, work will be halted and a qualified archeologist called in to examine the findings.

VII. ENVIRONMENTAL ASSESSMENT

A. ENVIRONMENTAL IMPACTS

The main environmental impact of the proposed project will be the loss of the 88+ acres of prime agricultural land. The project parcel is made up of Hanford Sandy Loam which is rated as a Class 1 soil for agricultural production. It is a soil type particularly well suited for the production of grapes in the Lodi area.

If the proposed project is approved, the removal of the vineyards and the construction of structures will terminate further use of the land for agriculture.

Urbanization of the subject parcel may affect the continued agricultural operation on adjacent parcels. The presence of residential and commercial structures may restrict or limit normal farming operations on adjacent

agricultural lands. The use of certain pesticides and herbicides may be restricted by State regulations, particularly next to residential areas. Cultivation and harvesting operations may result in complaints from residents concerning noise and dust. Agricultural operations adjacent to urbanized areas may also be subject to an increased amount of trespassing and vandalism.

The proposed project will increase traffic on Lower Sacramento Road and possibly other streets in the area. Until properties to the north and south are developed, the sole access to the project will be from Lower Sacramento Road. The project is estimated to generate 5,000+ vehicle trips per weekday when fully developed. This would almost double existing traffic volumes on Lower Sacramento Road.

The increase in vehicular traffic will produce additional air pollution in the immediate area of the project. The project-generated pollution will have a localized affect on air quality, but will not significantly affect the overall air quality of San Joaquin County. Based on a worst-situation case, vehicular traffic generated by the development would increase overall air pollutants by 6/10 of 1%.

The project will be located adjacent to Lower Sacramento Road, a high noise traffic route. The project will have residential units that will fall within areas that exceed 60 decibels of noise. The 60 decibel level is generally considered the acceptable level for noise in a residential unit.

The project will generate an estimated 467 additional school-aged children. The addition of these students would adversely affect the LUSD and its ability to provide adequate classroom space. The LUSD has filed a Declaration of Impaction that states that the schools are at maximum capacity and that new students cannot be guaranteed classroom space.

B. MITIGATION MEASURES

If the Kennedy Ranch project is approved and constructed, the 88+ acres of prime agricultural land will be removed from further agricultural use. There is no practical way to mitigate this impact. The property has been within the general plan area for the City of Lodi for many years and has been designated for residential development.

The additional traffic generated by the project can be mitigated by careful design of the project circulation system. Limiting driveway access onto Lower Sacramento Road will reduce traffic hazards and congestion.

The residential parcels should have their street access off of interior streets and not on Lower Sacramento Road.

Additionally, the project street design will be required to provide for adequate future access to properties to the north and south. This will allow for north-south traffic movement and access to Elm Street and Turner Road.

The problem of high noise levels along Lower Sacramento Road and its impact on residential structures can be mitigated in two ways. First, construction of a sound wall along the roadway will partially shield the residential units and reduce the noise levels by approximately 10 dBA. Second, the design and placement of the residential units can further reduce the noise levels. Those structures immediately adjacent to the roadway will require

special noise insulation that could include double glazed windows, extra wall insulation, caulking of all pipe and electrical wire holes cut in the walls, etc. Additionally, limiting the first row of houses to single story structures will make the same barrier more effective.

The impact of the additional students on the LUSD has been at least partially mitigated by the signing of an agreement between the developer and the school district. The agreement provides for the payment of an agreed upon amount of money for each residential unit to help pay for additional classroom space.

The fees would be paid directly to the LUSD if the City imposed "bedroom fee" is ruled unconstitutional by the courts. If the "bedroom fee" is ruled constitutional, the developer will pay the "bedroom fee" and will not be required to pay any additional monies. In either case, the LUSD will receive a payment from the development.

Additionally, there is a countywide task force working on the problem of school financing. This task force has begun to generate recommendations for both short- and long-term solutions to the problems faced by LUSD and other school districts in the county.

C. ALTERNATIVES TO THE PROJECT

The principle alternative to the proposed project would be a "no build" alternative. This would maintain the existing agricultural use of the land and eliminate the adverse impacts resulting from the proposed project.

The other alternative would be a different type of project. This could involve a different combination of land uses, i.e., more single family/less attached housing or more residential/no commercial, etc.

Ultimately, the second alternative would not significantly change the impacts resulting from the project. The primary impact, the loss of agricultural land, would result regardless of the project mix. The other impacts, traffic, air quality, noise and school children would change slightly according to the mix, but not enough to make a significant difference.

D. IRREVERSIBLE AND LONG TERM IMPACTS

The loss of agricultural land will be an irreversible and long-term impact. Once the land is developed with homes and businesses, there is little likelihood that the land will ever be used for agricultural purposes.

E. CUMULATIVE IMPACTS

A project will have a cumulative impact on the loss of agricultural land. In the past year, a 90+ acre development, Lakeshore Village, was approved and is under development. Additionally, there were various residential, commercial and industrial projects that removed perhaps another 200+ acres of agricultural land in the past several years. It is expected that additional requests for development projects will be made in the current year and in the future.

Unfortunately, all land in and around the City of Lodi is designated prime agricultural land. The entire area surrounding the City is in agricultural use. Almost every development, large or small, must utilize agricultural

land. There are no non-prime soil non-agricultural parcels around Lodi. The residential, commercial and industrial requirements of the City and its residents necessitate urbanization of agricultural land.

The other significant cumulative impact is the impact on the LUSD. LUSD estimates place the number of new students generated by developments in Lodi and North Stockton at 5,000 students in the next few years. These students place a strain on the District's ability to provide classroom space, particularly in light of the fiscal problems facing schools.

Currently, developers both in Lodi and in Stockton have been working with the LUSD to provide funds for additional classroom space. This will help alleviate some of the short-term problems facing the schools.

F. GROWTH-INDUCING IMPACTS

The project will have a growth inducing impact. The project will be the first residential development on the west side of Lower Sacramento Road and north of Lodi Avenue. This area is currently all in agriculture except for an office complex at the northwest corner of Turner and Lower Sacramento Roads. This project will open this area to development and may affect adjacent agricultural parcels, making development of these parcels more likely.

The installation of various public utilities, particularly storm drainage, will encourage development of the area. If the concept of the private lake/storm drainage basin proves successful, it is likely that other developments in the area will consider the same approach. This would open the entire area up for development.

It must be noted, however, that the area is within the planning area of the City and has been designated for low density residential development for many years. The entire area east of the project property is completely developed.

G. ENERGY CONSERVATION

Structures in the project will be constructed to meet State of California Energy Standards. The standards include such things as window area, insulation, energy efficient appliances, etc.

A majority of the lots in the project have a north-south orientation. This orientation provides the best adaptability for both passive and active solar design. The developer could also offer various solar design packages as part of the construction of the homes.

If the commercial site is approved, the availability of a neighborhood shopping area will reduce vehicular trips. If the area provides some convenience services, residents in the project can walk or bike to do some of their shopping instead of traveling to more distant commercial areas.

PERSONS OR AGENCIES PROVIDING INFORMATION

Ronald Thomas

- Thomas Development, Inc.

Lodi Unified School District

Woodbridge Irrigation District

- Mabel Hall

Local Agency Formation Commission

- Gerald Scott, Executive Director

Baumbach & Piazza, Civil Engineers, Lodi

LIST OF RESOURCE PUBLICATIONS

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