MINUTE ITEM
This Calendar Item No. C08
was approved as Minute Item
No. 8 by the State Lands
Commission by a vote of 3
at its 1/8/92
meeting.

CALENDAR ITEM

A 3, 8

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C 08

01/08/92
W 24544 PRC 7602
J. Ludlow

APPROVE A GENERAL LEASE - RIGHT-OF-WAY USE

APPLICANT:
Chevron, U.S.A., Inc.
P. O. Box 11191
Bakersfield, California 93389

AREA, TYPE LAND AND LOCATION:
A 0.166-acre parcel of submerged land located in the Sacramento River near Knights Landing, Sutter and Yolo counties.

LAND USE:
Construction, use, and maintenance of a proposed eight-inch natural gas pipeline.

TERMS OF PROPOSED LEASE:
Initial period:
Twenty (20) years beginning January 1, 1992

Surety Bond:
$10,000

Public Liability insurance:
$2,000,000 to be covered under Chevron's self-administered claims program W 23833

CONSIDERATION:
$250.00 per annum; with the State reserving the right to fix a different rental on each fifth anniversary of the lease.

BASIS FOR CONSIDERATION:
Pursuant to 2 Cal. Code Regs. 2003

APPLICANT STATUS:
Applicant is permittee of upland.

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PREREQUISITE CONDITIONS, FEES AND EXPENSES:

Filing fee, processing costs, and the first year's annual rental have been received.

STATUTORY AND OTHER REFERENCES:

A. P.R.C.: Div. 6, Parts 1 and 2: Div. 13.

B. Cal Code Regs.: Title 2, Div. 3: Title 14, Div. 6.

AB 884:

02/14/92

OTHER PERTINENT INFORMATION:

1. Pursuant to the Commission's delegation of authority and the State CEQA Guidelines (14 Cal. Code Regs. 15025), the staff has prepared a Proposed Negative Declaration identified as EIR ND 560, State Clearinghouse No. 91083034. Such Proposed Negative Declaration was prepared and circulated for public review pursuant to the provisions of CEQA. A Mitigation Monitoring Program, Exhibit "D" is attached.

2. This activity involves lands identified as possessing significant environmental values pursuant to P.R.C. 6370, et seq. Based upon the staff's consultation with the persons nominating such lands and through the CEQA process, it is the staff's opinion that the project, as proposed, is consistent with its use classification.

3. Chevron proposes to construct the Knights Landing Eastside Gathering System, forming an extension of the existing Knights Landing natural gas pipeline. The project is intended to bring four additional natural gas wells into production and increase the delivery capability of the Knights Landing pipeline.

4. The project will begin approximately 2.5 miles southeast of Knights Landing in Yolo County. The route will cross the Sacramento River at Irish Bend where two gas wells will be connected. The pipeline will continue north on the east side of the Sacramento River and connect with two more gas wells near Mary's Lake, an isolated oxbow lake.

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5. The eight-inch-diameter, plastic-coated steel pipeline will be buried at least 60 inches below the soil surface. At the Sacramento River crossing, the pipeline will be bored under the river with the drilling starting approximately 100 feet outside the outer edge of the levee.

6. Chevron has requested that this lease be added to the self-administered claims program authorized by the State Lands Commission, June 26, 1986, under W 23833.

APPROVALS OBTAINED:

United States Army Corps of Engineers and State Reclamation Board

FURTHER APPROVALS REQUIRED:

None

EXHIBITS:

A: Land Description
B: Location Map
C. Proposed Negative Declaration
D. Mitigation Monitoring Program

IT IS RECOMMENDED THAT THE COMMISSION:

1. CERTIFY THAT A NEGATIVE DECLARATION, EIR ND 550, STATE CLEARINGHOUSE NO. 91083034, WAS PREPARED FOR THIS PROJECT PURSUANT TO THE PROVISIONS OF THE CEQA AND THAT THE COMMISSION HAS REVIEWED AND CONSIDERED THE INFORMATION CONTAINED THEREIN.

2. ADOPT THE MITIGATION MONITORING PLAN, ATTACHED AS EXHIBIT "D" AND DETERMINE THAT THE PROJECT, AS APPROVED, WILL NOT HAVE A SIGNIFICANT EFFECT ON THE ENVIRONMENT.

3. AUTHORIZE ISSUANCE TO CHEVRON, U.S.A., INC. OF A TWENTY - YEAR GENERAL LEASE - RIGHT-OF-WAY USE, BEGINNING JANUARY 1, 1992, IN CONSIDERATION OF ANNUAL RENT IN THE AMOUNT OF $250, WITH THE STATE RESERVING THE RIGHT TO FIX A DIFFERENT RENTAL ON EACH FIFTH ANNIVERSARY OF THE LEASE; PROVISION OF A $10,000 SURETY BOND; PROVISION OF $2,000,000 TO BE COVERED UNDER CHEVRON'S SELF-ADMINISTERED CLAIMS PROGRAM W 23833; FOR THE INSTALLATION AND MAINTENANCE OF AN EIGHT-INCH NATURAL GAS PIPELINE ON THE LAND DESCRIBED ON EXHIBIT "A" ATTACHED AND BY REFERENCE MADE A PART HEREOF.

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EXHIBIT "A"

W 24544

LAND DESCRIPTION

A strip of land 12 feet in width crossing a portion of the Sacramento River within Sec. 30, T 11 N, R 3 E, MDM, located in Sutter and Yolo Counties, California. The centerline of said strip is more directly described as follows:

COMMENCING at a point that bears S 80° 47' 34" E 864.72 feet from the southwest corner of Section 30; thence N 43° 42' 41" E 82.51 feet; thence N 17° 02' 27" E 288.44 feet to a point located at the southerly toe of the Sacramento River access levee and the TRUE POINT OF BEGINNING; thence continuing N 17° 02' 27" E 599.59 feet crossing the Sacramento River to a point at the northerly toe of the Sacramento River access levee and the end of the herein described strip of land. Said point of ending is S 39° 36' 14" W 2523.41 feet from the center of said Section 30.

EXCEPTING THEREFROM any portion lying landward of the ordinary low water mark of the Sacramento River.

END OF DESCRIPTION

PREPARED AUGUST, 1991 BY LLB

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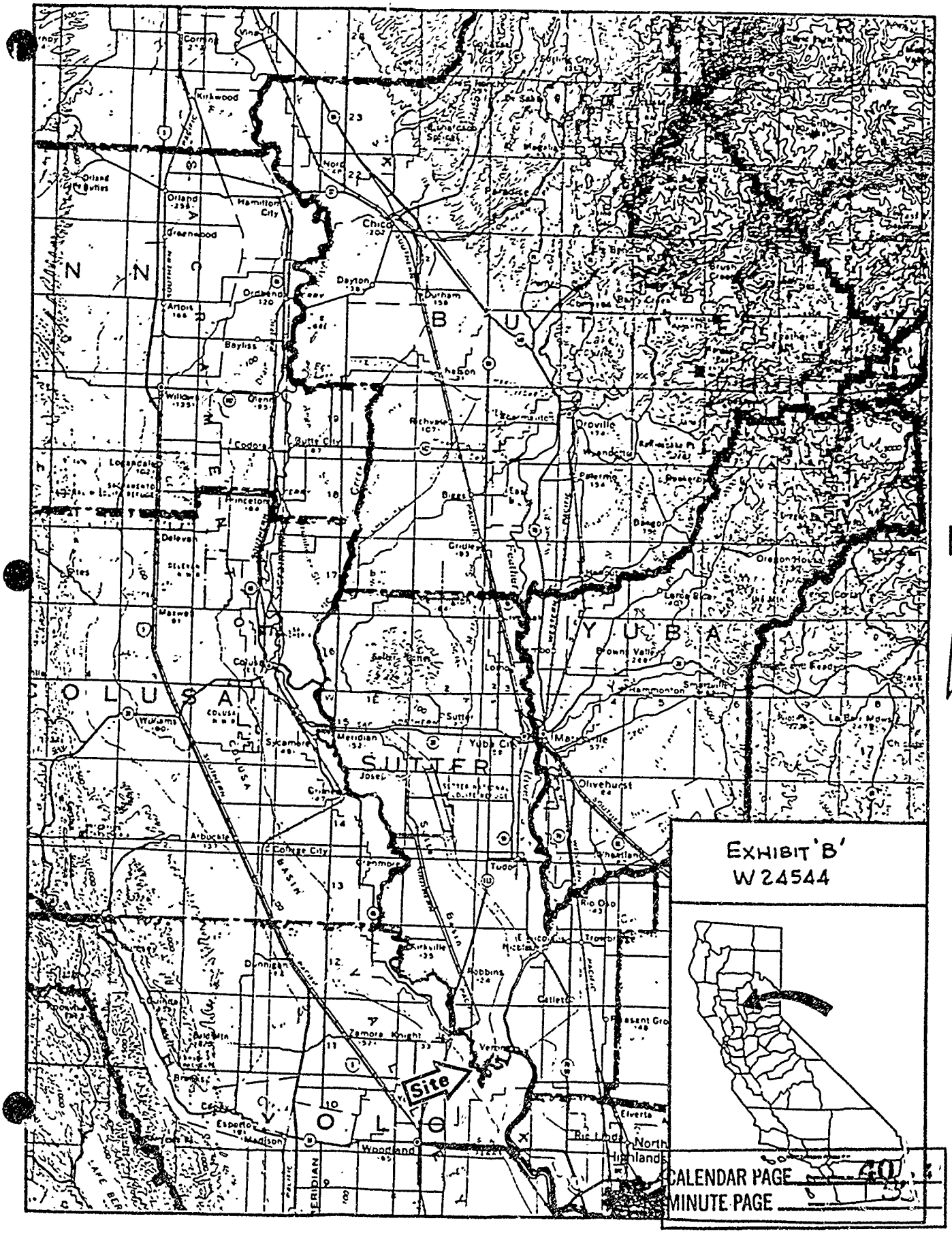
BUTTE
YUBA
SUTTER
COLUSA
GLENN
Site
N
EXHIBIT 'B'
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STATE LANDS COMMISSION

LEO T. McCARTHY, *Lieutenant Governor*
GRAY DAVIS, *Controller*
THOMAS W. HAYES, *Director of Finance*

EXECUTIVE OFFICE
1807 - 13th Street
Sacramento, CA 95814

CHARLES WARREN
Executive Officer

PROPOSED NEGATIVE DECLARATION

EIR ND: 560
File: W 24544
SCH No. 91083034

Project Title:	Chevron Knights Landing Eastside Gathering System
Proponents:	Chevron U.S.A.
Project Location:	Sacramento River, River Mile 85.1, near Irishman Bend, approximately 2.5 miles southeast of the community of Knights Landing, Yolo County.
Project Description:	Install approximately 2.49 miles of 8" plastic coated steel pipeline, including approximately 1000 feet of the pipeline to be placed under the Sacramento River channel, for the purpose of transporting natural gas.
Contact Person:	Jacques Graber Telephone: 916/323-7209

This document is prepared pursuant to the requirements of the California Environmental Quality Act (Section 21000 et seq., Public Resources Code), the State CEQA Guidelines (Section 15000 et seq., Title 14, California Code Regulations), and the State Lands Commission regulations (Section 2901 et seq., Title 2, California Code Regulations).

Based upon the attached Initial Study, it has been found that:

/__/ this project will not have a significant effect on the environment.

/X/ mitigation measures included in the project will avoid potentially significant effects.

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STATE LANDS COMMISSION

ENVIRONMENTAL IMPACT ASSESSMENT CHECKLIST – PART II

Form 13.20 (7/82)

File Ref.: W 24544

I. BACKGROUND INFORMATION

A. Applicant: Chevron U.S.A.
Attn: James W. Seymour
4900 California Avenue
Bakersfield, CA 93309

B. Checklist Date: 8 / 8 / 91

C. Contact Person: Jacques Graber
Telephone: (916) 323-7209

D. Purpose. Install a natural gas pipeline, an extension of the existing Knights Landing natural gas pipeline, to increase delivery capability.

E. Location. Sacramento River, River Mile 85.1, near Irishman Bend, approximately 2.5 miles southeast of Knights Landing, Yolo County.

F. Description. Install approximately 2.49 miles of 8" plastic coated steel pipeline, including approximately 1000 feet of the pipeline to be placed under the Sacramento River channel, for the purpose of transporting natural gas.

G. Persons Contacted:

II. ENVIRONMENTAL IMPACTS. *(Explain all "yes" and "maybe" answers)*

A. *Earth.* Will the proposal result in:

	Yes	Maybe	No
1. Unstable earth conditions or changes in geologic substructures?			X
2. Disruptions, displacements, compaction, or overcovering of the soil?		X	
3. Change in topography or ground surface relief features?			X
4. The destruction, covering, or modification of any unique geologic or physical features?			X
5. Any increase in wind or water erosion of soils, either on or off the site?		X	
6. Changes in deposition or erosion of beach sands, or changes in siltation, deposition or erosion which may modify the channel of a river or stream or the bed of the ocean or any bay, inlet, or lake?			X
7. Exposure of all people or property to geologic hazards such as earthquakes, landslides, mudslides, ground failure, or similar hazards?			X

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	Yes	Maybe	No
B. *Air.* Will the proposal result in:			
1. Substantial air emmissions or deterioration of ambient air quality?	☐	☒	☐
2. The creation of objectionable odors?	☐	☒	☐
3. Alteration of air movement, moisture or temperature, or any change in climate, either locally or regionally?	☐	☐	●
C. *Water.* Will the proposal result in:			
1. Changes in the currents, or the course or direction of water movements, in either marine or fresh waters?	☐	☐	☒
2. Changes in absorption rates, drainage patterns, or the rate and amount of surface water runoff?	☐	☐	☒
3. Alterations to the course or flow of flood waters?	☐	☐	☒
4. Change in the amount of surface water in any water body?	☐	☐	☒
5. Discharge into surface waters, or in any alteration of surface water quality, including but not limited to temperature, dissolved oxygen or turbidity?	☐	☐	☒
6. Alteration of the direction or rate of flow of ground waters?	☐	☐	☒
7. Change in the quantity of ground waters, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations?	☐	☐	☒
8. Substantial reduction in the amount of water otherwise available for public water supplies?	☐	☐	☒
9. Exposure of people or property to water-related hazards such as flooding or tidal waves?	☐	☐	☒
10. Significant changes in the temperature, flow or chemical content of surface thermal springs?	☐	☐	☒
D. *Plant Life.* Will the proposal result in:			
1. Change in the diversity of species, or number of any species of plants (including trees, shrubs, grass, crops, and aquatic plants)?	☐	☒	☐
2. Reduction of the numbers of any unique, rare or endangered species of plants?	☐	☐	☒
3. Introduction of new species of plants into an area, or in a barrier to the normal replenishment of existing species?	☐	☐	●
4. Reduction in acreage of any agricultural crop?	☐	☒	☐
E. *Animal Life.* Will the proposal result in:			
1. Change in the diversity of species, or numbers of any species of animals (birds, land animals including reptiles, fish and shellfish, benthic organisms, or insects)?	☐	☒	☐
2. Reduction of the numbers of any unique, rare or endangered species of animals?	☐	☐	☒
3. Introduction of new species of animals into an area, or result in a barrier to the migration or movement of animals?	☐	☐	☒
4. Deterioration to existing fish or wildlife habitat?	☐	☐	☒
F. *Noise.* Will the proposal result in:			
1. Increase in existing noise levels?	☐	☒	☐
2. Exposure of people to severe noise levels?	☐	☒	☐
G. *Light and Glare.* Will the proposal result in:			
1. The production of new light or glare?	☐	☒	☐
H. *Land Use.* Will the proposal result in:			
1. A substantial alteration of the present or planned land use of an area?	☐	☐	☒
I. *Natural Resources.* Will the proposal result in:			
1. Increase in the rate of use of any natural resources?	☐	☒	●
2. Substantial depletion of any nonrenewable resources?	☐	☐	☒

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	Yes	Maybe	No
J. *Risk of Upset.* Does the proposal result in:			
1. A risk of an explosion or the release of hazardous substances (including, but not limited to, oil, pesticides, chemicals, or radiation) in the event of an accident or upset conditions?	☐	☒	☐
2. Possible interference with emergency response plan or an emergency evacuation plan?	☐	☐	☒
K. *Population.* Will the proposal result in:			
1. The alteration, distribution, density, or growth rate of the human population of the area?	☐	☐	☒
L. *Housing.* Will the proposal result in:			
1. Affecting existing housing, or create a demand for additional housing?	☐	☐	☒
M. *Transportation/Circulation.* Will the proposal result in:			
1. Generation of substantial additional vehicular movement?	☐	☒	☐
2. Affecting existing parking facilities, or create a demand for new parking?	☐	☒	☐
3. Substantial impact upon existing transportation systems?	☐	☐	☒
4. Alterations to present patterns of circulation or movement of people and/or goods?	☐	☐	☒
5. Alterations to waterborne, rail, or air traffic?	☐	☐	☒
6. Increase in traffic hazards to motor vehicles, bicyclists, or pedestrians?	☐	☒	☐
N. *Public Services.* Will the proposal have an effect upon, or result in a need for new or altered governmental services in any of the following areas:			
1. Fire protection?	☐	☒	☐
2. Police protection?	☐	☒	☐
3. Schools?	☐	☐	☒
4. Parks and other recreational facilities?	☐	☐	☒
5. Maintenance of public facilities, including roads?	☐	☒	☐
6. Other governmental services?	☐	☐	☒
O. *Energy.* Will the proposal result in:			
1. Use of substantial amounts of fuel or energy?	☐	☒	☐
2. Substantial increase in demand upon existing sources of energy, or require the development of new sources?	☐	☐	☒
P. *Utilities.* Will the proposal result in a need for new systems, or substantial alterations to the following utilities:			
1. Power or natural gas?	☐	☐	☒
2. Communication systems?	☐	☐	☒
3. Water?	☐	☐	☒
4. Sewer or septic tanks?	☐	☐	☒
5. Storm water drainage?	☐	☐	☒
6. Solid waste and disposal?	☐	☐	☒
Q. *Human Health.* Will the proposal result in:			
1. Creation of any health hazard or potential health hazard (excluding mental health)?	☐	☒	☐
2. Exposure of people to potential health hazards?	☐	☒	☐
R. *Aesthetics.* Will the proposal result in:			
1. The obstruction of any scenic vista or view open to the public, or will the proposal result in the creation of an aesthetically offensive site open to public view?	☐	☒	☐
S. *Recreation.* Will the proposal result in:			
1. An impact upon the quality or quantity of existing recreational opportunities?	☐	☐	☒

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T. *Cultural Resources.*

	Yes	Maybe	No
1. Will the proposal result in the alteration of or the destruction of a prehistoric or historic archeological site?	☐	☒	☐
2. Will the proposal result in adverse physical or aesthetic effects to a prehistoric or historic building, structure, or object?	☐	☐	●
3. Does the proposal have the potential to cause a physical change which would affect unique ethnic cultural values?	☐	☐	☒
4. Will the proposal restrict existing religious or sacred uses within the potential impact area?	☐	☐	☒

U. *Mandatory Findings of Significance.*

1. Does the project have the potential to degrade the quality of the environment, reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☒
2. Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals?	☐	☐	☒
3. Does the project have impacts which are individually limited, but cumulatively considerable?	☐	☐	☒
4. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒

III. DISCUSSION OF ENVIRONMENTAL EVALUATION *(See Comments Attached)*

(See attached)

IV. PRELIMINARY DETERMINATION

On the basis of this initial evaluation:

☒ I find the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described on an attached sheet have been added to the project. A NEGATIVE DECLARATION will be prepared.

☐ I find the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

Date: 8/8/91

For the State Lands Commission

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CHEVRON KNIGHTS LANDING
EASTSIDE GATHERING SYSTEM
INITIAL STUDY
DISCUSSION OF ENVIRONMENTAL IMPACT ASSESSMENT

PROJECT DESCRIPTION

Chevron proposes to construct the Knights Landing Eastside Gathering System (KLEGS), forming an extension of the existing Knights Landing natural gas pipeline. The project is intended to bring four additional natural gas wells into production and increase the delivery capability of the Knights Landing pipeline.

The proposed project will start approximately 2.5 miles southeast of Knights Landing (see map, Exhibit A) in Yolo County. The route will cross the Sacramento River at Irishman Bend (river mile 85.1), where gas wells 2-30 and 3-30 will be connected. The pipeline will continue north on the east side of the Sacramento River and connect with wells 1-19 and 2-19 near Mary's Lake (map), an isolated oxbow lake.

The pipe proposed for use will be 8 inch inner diameter plastic coated steel. The 2.49 mile long pipeline will be buried at least 60 inches below the soil surface. At the Sacramento River crossing, the pipeline will be bored under the river with the drilling operation starting approximately 100 feet outside the outer edge of the levees. A horizontal drilling system which uses a circulating fluid of water and bentonite mud to assist in drilling will be used to pierce a pilot hole. Once the hole is completed, the drill string will be drawn back through the hole with a reamer and the completed pipe string attached. This will avoid possible disturbance to levees or to streambanks. Vegetation and soil would be disturbed temporarily within a 50-foot wide construction right-of-way and at the two staging areas for the drilling operations. Potable water will be used during boring and for hydrostatic testing of the pipeline. The used water from the drilling will be taken up and transported to an approved disposal site. The water from the testing will be either discharged onto nearby agricultural fields or removed to an approved disposal site by vacuum truck. Construction will last approximately three weeks in late spring or summer 1991. The project sites will be restored to original condition.

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DESCRIPTION OF PROJECT SITE

The environment through which the proposed project will pass consists of a variety of environmental types. The terrain consists of flat valley topography with low rises. The Sacramento River passes through the project corridor forming a narrow meandering channel braced by man-made levees approximately 15 feet higher than the surrounding terrain.

The dominant land use in the proposed pipeline corridor and the surrounding area is agricultural. The proposed corridor crosses lands primarily used for farming row and grain crops. Several orchards are in the general area but they are not within the project's disturbance corridor. The proposed pipeline corridor follows adjacent to an irrigation channel and high tension power lines. It passes a small wetland at the west end of Horseshoe lake; a small oxbow lake approximately 3000 feet east of the Sacramento River. Most of the vegetation along the riverbanks at the proposed pipeline crossing has been removed and replaced with approximately 10 inch loose cobble riprap for bank stabilization. Some small pockets of riparian forest vegetation still remain along the river channel in the riprapped areas.

ENVIRONMENTAL IMPACTS

A.1 Unstable Conditions

The project will involve some trenching to bury the pipeline along the upland portions of the route. The trench will be dug approximately 60 inches below ground surface level. Once the pipe string is laid in the trench, the excavation will be filled and the soil packed to natural profile. The river crossing will involve some extra excavation for the boring operation under the river. A directional drilling system will drill a horizontal hole under the river to emerge approximately 100 feet beyond the levees. No trenching through the levees or river channel will occur. These operations will involve digging a shallow trench and boring under the river channel. These operations will not cause unstable conditions to induce landslides or seismic events.

A.2 Disruptions

The project will involve digging of a trench approximately 2.5 miles long and averaging 60 inches depth. The soil removed for the trench will be placed alongside the trench and used to bury the pipeline once the pipe is installed. The majority of the pipeline route is on cultivated land. The pipeline will cross the Sacramento River at river mile 85.1 near Irishman bend. Horizontal drilling will be employed to place the pipe under the river channel. Two staging areas, one at each side of the river, will be required to pass the drill string and pipe under the channel. Each of these

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sites will be approximately 40 feet wide and 100 feet long. These impacts will be temporary, lasting approximately three weeks until the project is completed.

A.3 Topography

The project will be located on cultivated farmlands currently used for growing row crops and field crops like wheat. The terrain is flat with low rises typical of the Central Valley Province. The trenching operations will not create a significant excavation or burial of surface features. The drilling operations will not displace significant volumes of soil. No changes will occur in surface relief features.

A.4 Unique Features

The project is located in terrain typical of the Central Valley Province. The excavation and replacement of the native soil will not disturb, cover or modify any unique geologic or physical features. The excavations will be minor and temporary in nature.

A.5 Erosion

The project is located on terrain which exhibits little surface relief. The excavations will not accelerate water erosion through exposure of soil to rain and surface runoff. The exposed soil from the trench could be subject to wind erosion while it is placed alongside the trench. This impact will be minimized by trenching and refilling as soon as pipe is laid. Access roads on site will be watered to keep fugitive dust down. Impacts from wind should be minimal. Once the project is completed the land use will return to agricultural activities.

A.6 Siltation

The trenching operations will be conducted on dry uplands away from any major rivers, streams or lakes. There will be no chance of siltation being caused by this operation. The drilling operation under the Sacramento river will be conducted from sites approximately 100 feet from the river channel. The bore will pass under the river channel, emerging at the opposite bank with no impact on the river.

A.7 Geologic Hazards

The trenching operations and horizontal drilling under the river are surface excavations exceeding depths no greater than 100 feet. These operations will not affect any faults to trigger earthquakes, or modify any major slopes to induce landslides or similar hazards.

B.1 Emissions

The project will involve trenching operations and horizontal

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drilling under the river. These operations involve machinery to move equipment,material and personnel and to excavate the trench and channel crossing. Diesel powered trenchers will be required to prepare the trench for the pipeline and to bury it. Diesel powered mud pumps and a horizontal drilling system will be used for the river crossing. Diesel emissions will increase during these operations. Work crews will arrive and leave each day. Personal vehicles used by work crews will create some added emissions from engine exhaust. These impacts will not be significant and will be temporary, lasting approximately three weeks. No air quality impacts will result from the pipeline itself.

B.2 Odors

Constuction of the pipeline will require use of machinery which is powered by diesel and gasoline engines. There may be some objectionable odors generated from these operations. The project is located in rural areas, away from significant numbers of potential receptors. The impacts should not be significant. The pipeline should not create objectionable odors during its operation.

B.3 Air Movement

The project involves construction of a buried natural gas pipeline approximately 2.5 miles long. The project will be buried approximately 60 inches below the ground surface on the upland portions and bored under the Sacramento River channel. There will be no impacts to surface air movements, temperature or climate.

C.1 Water Currents

The project involves the construction of a natural gas pipeline approximately 2.5 miles long. The majority of the pipeline will be buried by trenching and burying. The pipeline will cross the Sacramento River at river mile 85.1 near Irishman Bend. The crossing will be accomplished by horizontal boring under the river channel with start points approximately 100 feet away from each river bank. Neither the pipeline nor the drilling operation will interfere with the natural river channel and streamflow.

C.2 Drainage

The project will involve construction of a natural gas pipeline, subsequent trenching and burial of it. The project will require digging of a trench approximately 20 inches wide and 60 inches deep. The pipe will be laid in the trench, buried with the displaced soil and the excavation returned to original profiles.The river crossing will be bored under the river channel and will not affect streamflow. This project will not affect surface runoff, soil absorbtion or surface drainage patterns.

C.3 Flood Flow

The project will be buried approximately 60 inches below

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ground surface and under the Sacramento River channel at Irishman Bend. The burial of pipeline will occur during late spring or summer and will not be during flood periods. This operation will last only three weeks. Once buried, the pipeline will not present any major surface structures which would interfere with flood flows. The wells to which the pipeline will be connected each have a "christmas tree" which bears the well control valves but these fittings will not interfere with any potential floodwaters.

C.4 Surface Water

The pipeline will be constructed along a 2.5 mile route which is located on upland. The only portion which will cross the Sacramento River channel will be bored and passed under the river channel at Irishman Bend. This crossing will not affect the river channel, displacing surface water in any way.

C.5 Discharge

The pipeline will be constructed along an upland route with one river crossing at Irishman Bend on the Sacramento River. The trenching will be carried out with conventional trenching machinery which will not affect any water bodies or create effluents of any type. The boring operation will be conducted with the staging areas approximately 100 feet from the river channel. Some fluids will be created during the boring. These fluids will be composed of water and drilling muds (bentonite) used to assist in drilling the pilot hole. The fluids will be circulated from a holding tank with the drilling equipment into the drill string where it will be forced out the drill bit. The returning fluids will pass back through the pilot hole to the holding tanks. No fluids will be released to the river channel. Used fluids will be pumped into a truck and transported to an approved disposal site.

C.6 Ground Waters

The project will involve trenching, laying and burying of approximately 2.5 miles of pipeline.This operation will be done to an average 60 inches below ground surface. A portion of the pipeline will be bored and placed under the Sacramento River channel. This operation will be done aproximately 15 feet below the river channel. These operations will occur at depths too shallow to affect ground water flows. There will be no effect on aquifers or ground water flows.

C.7 Ground Waters, Quantity

The project will be constructed and buried at shallow depths; between 60 inches for most of the route and approximately 15 feet under the river channel. These depths will not intersect with any aquifers or ground water. The pipeline is intended for transport of natural gas and not for ground water withdrawal. The pipeline will use 8 inch inner diameter plastic lined steel pipe. The pipe should not permit any water to enter the line and cause disruption to

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ground water flow.

C.8 Water Supplies

The pipeline will be used for the transport of natural gas at four wells nearby. The pipeline will not interfere with natural water supplies either as ground water or as surface water. It will have no effect on available public water suplies.

C.9 Water Hazards

The project will involve construction of a 2.5 mile length of natural gas pipeline which will be buried for its entire length. The project will have no effect on flood patterns in the area nor will it be cause of tidal waves or tsunami.

C.10 Thermal Springs

There are no known thermal springs in the project area. The construction of the pipeline will not have any impacts on thermal springs.

D.1 Plant Species Diversity

The project is being constructed along lands currently used in high intensity agriculture; primarily in row and field crops and orchards. A biological survey was conducted by Jones and Stokes associates to determine plant and animal species in the project site. The plant species encountered, aside from crops, will consist of weeds. The pipeline route follows along several drainage channels identified as having vernal marsh habitat. These canals could furnish habitat for California Hibiscus and Sanford's Arrowhead; two plants listed on the California Native Plant Species list 1b and 3 and fed. category 2. The project will avoid significant riparian habitat areas including the vernal marsh areas in the canals and a wetland at the west end of Horseshoe Lake. Two Valley Oak trees, listed in the CNPS list 4 will be avoided by the pipeline route. The river crossing will be accomplished away from the river channel with the staging areas approximately 100 feet from the river. No impacts to important native plant species will result from the pipeline route.

D.2 Rare Species

The project is routed away from any important environments which might support rare, threatened or endangered plant species. The route passes through agricultural lands which are highly disturbed and would discourage native plant occupation (see D.1).

D.3 New Species

The project will involve trenching and subsequent burial of a natural gas pipeline approximately 2.5 miles long. The operation

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will remove and replace soil along the route but not transport it. No new plant species will be introduced in this operation. Local plants may be inadvertently moved on equipment as seed or vegetative cuttings.

D.4 Reduction in Acreage

The project will be constructed in agricultural lands along an approximately 2.5 mile long corridor. The construction zone will be wide enough to accommodate construction equipment. This area will be disturbed for a period of approximately three weeks. No crop growth will be possible while the construction occurs. The duration of time and time of year the project is conducted will minimize the impacts of land area lost to agriculture. Once the pipeline is installed the affected lands will be available for crop production. The only lands not available for agriculture will be those on which the wells are located.

E.1 Animal Species Diversity

The project involves operations including trenching, filling and grading which could disturb native plant communities and other vegetation. This activity would disturb the habitats in which special status wildlife species live. Four such special status species which are found near the project area include the American perigrine falcon, the bank swallow, the valley elderberry longhorn beetle and the burrowing owl. The project route has been placed to avoid significant natural habitat which could support these special status plant and wildlife species.

E.2 Reduction of Species

The project route is located to avoid significant areas which could support natural habitats for special status animal species. The project is located on agricultural lands upon which no natural habitat is found. The portion of the pipeline which passes under the Sacramento River will not impact the riparian environment as this portion of the river has been extensively modified with channel work and riprap and the construction will not physically impact this part of the river.

E.3 New Animal Species

The project will involve trenching and burial of approximately 2.5 miles of natural gas pipeline. There will be no activities which would cause the importation or displacement of species into a previously unoccupied habitat.

E.4 Habitat Deterioration

The project route has been designed to follow in cultivated agricultural lands. No natural habitat will be impacted along the pipeline route, so no degradation of habitat will occur. The

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pipeline route will pass under the Sacramento River near Irishman Bend. The pipeline will not cross into the river channel and impact the environment at that location.

F.1 Increased Noise

The project will involve trenching and burial operations, pipe connecting and laying operations and drilling operations to pass the pipe under the river. These processes will require use of diesel powered machinery to transport materials and do the operations. Work crews will arrive and leave in personal vehicles each morning and evening. These increased noise levels will occur during normal working hours for the three-week life of the project. The project is located approximately 2.5 miles southeast of Knights Landing and should not create a significant impact upon potential receptors there. The impacts will be temporary, lasting during the three week life of the construction phase.

F.2 Severe Noise

The project will involve operations which use diesel powered heavy equipment. There may be instances in which intense bursts of noise may be generated during its use. These periods will be of short duration lasting for several seconds or minutes at most. Once the project is completed these episodes will stop.

G.1 Light and Glare

The project will be conducted during normal working hours. Night lighting will not be required for construction. The completed pipeline will be buried and will not require special lighting for its operation and maintenance.

H.1 Land Use

The proposed pipeline will be constructed on lands currently used for agriculture. The construction phase will require approximately three weeks to complete. During this time, the lands will not be available for cultivation. Once the pipeline is completed, the lands will be available again for crops. The impact will be minimal.

I.1 Natural Resource Use

The construction operations will require use of diesel and gasoline for power equipment. This impact of additional fuel use will be negligible. Upon completion, the pipeline will convey natural gas from four new wells in the area. This will create an increased use of natural resources in natural gas from the area. There will be a minor impact in natural gas use resulting from producing these four wells. The pipeline will not use the resource but will transport it.

I.2 Nonrenewable Resources

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The project will be used for the transport of natural gas from four new wells located in the area. These new wells will deplete this non-renewable resource. The area is part of a major natural gas region and will contribute to the general activity of natural gas production. This activity will not create a substantial depletion of the resource but it is part of a significant ongoing regional activity.

J.1 Explosion

The project involves extensive operation of diesel powered machinery, special welding equipment and a period of time in which special fluids will be employed in the drilling operations. There is a risk of explosion or discharge of hazardous substances during use or operation of any of these items. Explosion or spillage of fuel could occur during the operation of construction machinery. Explosions or fire hazards could result from an accident involving welding activities. There is a possibility of a fluid discharge or leak during the drilling operation under the river. All precautions will be taken by the project operators to minimize potential of accidents during any of these activities. Proper fire control equipment will be available in case of fire. The drilling operations will be safeguarded with proper spill control equipment in case of a drilling fluid spill. The drilling fluids, in addition consist of non hazardous bentonite mud and water. The prospect of an accident is minimal.

J.2 Emergency Plans

The project is located in a rural area 2.5 miles southeast of Knights Landing in Yolo County. The project will be away from major thoroughfares and urban areas. Its conduct will not interfere with any local emergency response plans or traffic access ways for emergency vehicles.

K.1 Population Alteration

The project involves construction of a 2.5 mile length of natural gas pipeline in a rural area southeast of Knights Landing. The project will last approximately three weeks. It will not create a significant impact on employment opportunities to affect a population influx. Completion of the pipeline will not impact natural gas supplies enough to stimulate new industry or housing trends for the area which would affect population patterns.

L.1 Housing

The project will involve constructing a natural gas pipeline which will require approximately three weeks to complete. There will not be a significant impact on employment opportunities to require permanant personnel relocation for the construction. Local workers and personnel brought in will dominate the activity. The completed pipeline might have a minor impact on future housing by offering an increased gas supply to more future households in the

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area. This impact is not expected to be significant.

M.1 Vehicular Movement

The project is located in a rural area 2.5 miles southeast of Knights Landing. There will be an increase in vehicle movements as work personnel, construction equipment and other project related support vehicles arrive at and leave the project site. There may be a minor impact to local road traffic during the construction of the pipeline. This impact should last approximately three weeks. There should be no impacts from the completed project.

M.2 Parking

The project is located in a rural area aproximately 2.5 miles southeast of Knights Landing. The operations will be conducted in agricultural fields away from roads. Parking will be available to workers at the pipeline sites. No new parking facilities will be required and parking will not be required along significant parts of local roads. The impact should be minimal.

M.3 Transportation Systems

The project is located in a rural area 2.5 miles southeast of Knights Landing. The project will be accessed by work crews using personal vehicles. Associated equipment will be transported by truck or tractor. There will be no increased demand on local bus or transit systems. There will be an increased demand on local road systems for movement of equipment and personnel. This impact should be minimal and will last during the three-week period of construction.

M.4 Traffic Patterns

The project is located in a rural area southeast of Knights Landing. The area is located away from major urban centers and significant highways and will not affect such traffic patterns. Local farm traffic usually uses the roads around the project area. This traffic will not be significantly affected by the project. Some of the larger equipment might hinder traffic flow on certain portions of roads but these impacts will be minimal and of a short duration. Such traffic activities should last approximately three weeks. The completed project should not affect local traffic patterns.

M.5 Waterborne,Rail,Air Traffic

The project is located in a rural area southeast of Knights Landing, primarily in agricultural fields. This project will not cross any railroad rights of way or interfere with any airport facilities. The pipeline will be bored under the Sacramento River Channel at Irishman Bend. This river crossing will not interfere with boat traffic along the river.

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M.6 Traffic Hazard

The project is located in a rural area southeast of Knights Landing in Yolo County. The majority of the pipeline route is located in farm fields and will not pose a hazard to traffic including pedestrians and bicyclists. Vehicle movements along some of the rural roads could pose a hazard to vehicular, pedestrian and bicyclist traffic. These impacts will be minimal as support equipment will travel occasionally. Workers will travel primarily during the morning and evening at opening and closing of work days.

N.1 Fire Protection

The project will be located approximately 2.5 miles southeast from Knights Landing. There will be some fire protection equipment located on site for small fires. The site is close to Knights Landing allowing coverage by the local fire district in case of a larger fire.

N.2 Police Protection

The project site is located in a rural area southeast of Knights Landing in Yolo County. The construction activities will be conducted during normal work hours with personnel off the site during non working hours. The project will be on private lands which should keep tresspassing to a minimum. The project site will be in the jurisdiction of the Yolo County Sheriffs department.

N.3 Schools

The project will require approximately three weeks to construct, limiting the amount of time personnel will be employed for construction. The operations will not introduce an impact on schools due to families associated with construction personnel.

N.4 Recreational Facilities

The project will involve construction of a natural gas pipeline 2.5 miles southeast of Knights Landing, Yolo County. The project will not impact use of recreational facilities including parks.

N.5 Maintenance of Facilities

The project is located approximately 2.5 miles southeast of Knights Landing in a rural area. Access will be via rural roads. Some of the equipment used will be heavy and could cause some stress and damage to road pavement along the routes to the project site. Efforts will be made by project personnel to avoid serious damage to roads.

N.6 Other services

The project should not affect other services such as refuse

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disposal or water/utility services.

O.1 Energy

The project will involve construction of an underground pipeline approximately 2.5 miles long. The pipeline construction will require the use of diesel and gasoline for construction equipment and transportation of personnel. This demand will last for the duration of the project; approximately three weeks. Upon completion, the pipeline will not require energy for its operation. The pipeline will convey new natural gas from four new wells located in the area.

O.2 Increase in Energy Demand

The pipeline is being constructed to transport natural gas which will be produced from four new gas wells located in the area. The pipeline will not require energy for its operation but, with the wells, it might furnish a new supply which could satisfy increased demand. This impact should not be significant.

P.1 New Natural Gas

The project is being constructed to transport natural gas from four new wells located in the area. The project will not create a new demand but will fill a future demand. The pipeline will connect with existing systems and tie into four new gas wells. The impacts of new supply and the project's interaction with existing pipeline systems should be minimal.

P.2 Communications Systems

The proposed project will involve construction of a new natural gas pipeline which will transport natural gas from four new wells into an existing pipeline system. The project will not involve or affect existing communications systems.

P.3 Water

The project will require water for drilling the pilot hole under the Sacramento River channel and for some fugitive dust abatement. This water will be transported by truck to the project site as needed. No significant impacts will result from water needs for the project.

P.4 Sewerage

The project sites will be located in a rural area southeast of Knights Landing. The construction will not affect sewer requirements for the area. Construction crews will be furnished

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with chemical toilets for on site use. This impact will be minimal.

P.5 Storm Water

The project is located in a rural area southeast of Knights Landing in Yolo County. The sites are located in farm fields which are distant from major drainage systems or streams. The project will be conducted in late summer reducing the chance of precipitation which could wash material from the project into the water table or a nearby stream. This impact should be minimal.

P.6 Solid Waste.

The project will involve construction including digging of a trench to 60 inches depth and boring a portion of the pipeline route under the Sacramento River at Irishman Bend. The trenching will involve removal of the surface soil and emplacement of the pipe, followed by burial. Little or no excess soil should result from this operation. The boring operation may displace some solid material in the soil matrix as well as create more material associated with the drilling mud. The materials obtained from the drilling will be collected in a disposal truck and conveyed to a disposal site in Orland. Rubbish will be disposed of in the appropriate fashion.

Q.1 Health Hazard

The project involves use of heavy construction equipment to excavate and build the pipeline. There is a potential of health hazard related to an accident or spillage of fluids, fire or improper construction activities. Proper operation and use of equipment will minimize this hazard. There is a potential of a hazard associated with operation of the pipeline through a gas leak or accidental piercing of the pipeline. These hazards will be minimized by safety valves in the pipeline to control gas pressure and flow and markers along the pipeline route to warn of its presence.

Q.2 Health Hazard.

There is a potential of health hazard from the completed project but proper safeguards should prevent such misshaps (see Q.1).

R.1 Views

The project will involve surface construction along the pipeline route. Large machinery including cranes, excavators, trucks and other small equipment will be assembled along the route. This equipment will be visable from various areas. This impact will last for the duration of construction; approximately three weeks. The completed project will display no visual impacts.

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S.1 Recreation

The project is being constructed in rural farmlands southeast of Knights Landing. There will be no impacts on recreation in this area. There will be no impacts on hunting as the project will be completed before hunting seasons begin. The channel crossing will not interfere with recreational boating. There will be no impact or demand on recreational opportunities in the area.

T.1 Archaeologic Sites

An archaeologic site survey was conducted for Chevron by Jones and Stokes associates. The survey was conducted along the length of the proposed pipeline route (alternative A) in order to find possible archaeological sites. Pre-field research indicated the site was high in potential for finding cultural resources. Field surveys along a 20 meter wide corridor along the pipeline route were done to find signs of artifacts. No artifact were found in the search.

If artifacts are indeed located along the route any construction that broke into the substrate could possibly damage or destroy those artifacts. If artifacts are discovered,(e.g., bone, chipped stone, shell, glass and ceramics) all work will cease immediately in the vicinity of the find until a qualified archaeologist can inspect them and determine their significance.

T.2 Historic Structures

The project is located in rural agricultural fields away from any major developed areas. There are no historic structures in proximity to the pipeline route. There will be no impacts.

T.3 Ethnic Values

The project proponent enlisted Jones and Stokes Associates to research the cultural history of this area. The research revealed no area of ethnic significance along the pipeline route. There should not be any impact.

T.4 Religious Uses

The research conducted by Jones and Stokes Associates revealed no areas of religious significance in the corridor to be used for the pipeline. There should not be an impact.

U.1 Degrade Environment

The project has been located in such a way to avoid significant areas which could support important habitat for critical species or to reduce remaining habitat. The majority of the project is positioned in cultivated fields. The project will not impact or degrade existing habitat areas.

U.2 Environmental Goals

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The project is located in actively cultivated fields. The impacts of construction will be short term (three weeks) and the resulting finished project will display a low visual and operational impact. The pipeline will not degrade the environmental quality of the area.

U.3 Limited vs. Cumulative Impacts.

The project will involve construction, excavation and burial of a natural gas pipeline. The impacts of construction will be short term and temporary (three weeks). Operation of the pipeline will be of minimal impact. The cumulative impact of this project will be minimal.

U.4 Adverse Environmental Effects

The construction phase of the project will be approximately three weeks in duration. The finished project will be buried and present no significant visual impact. The operation of the pipeline will present a minimal hazard or impact to the surroundings. These minor impacts should not adversely affect humans.

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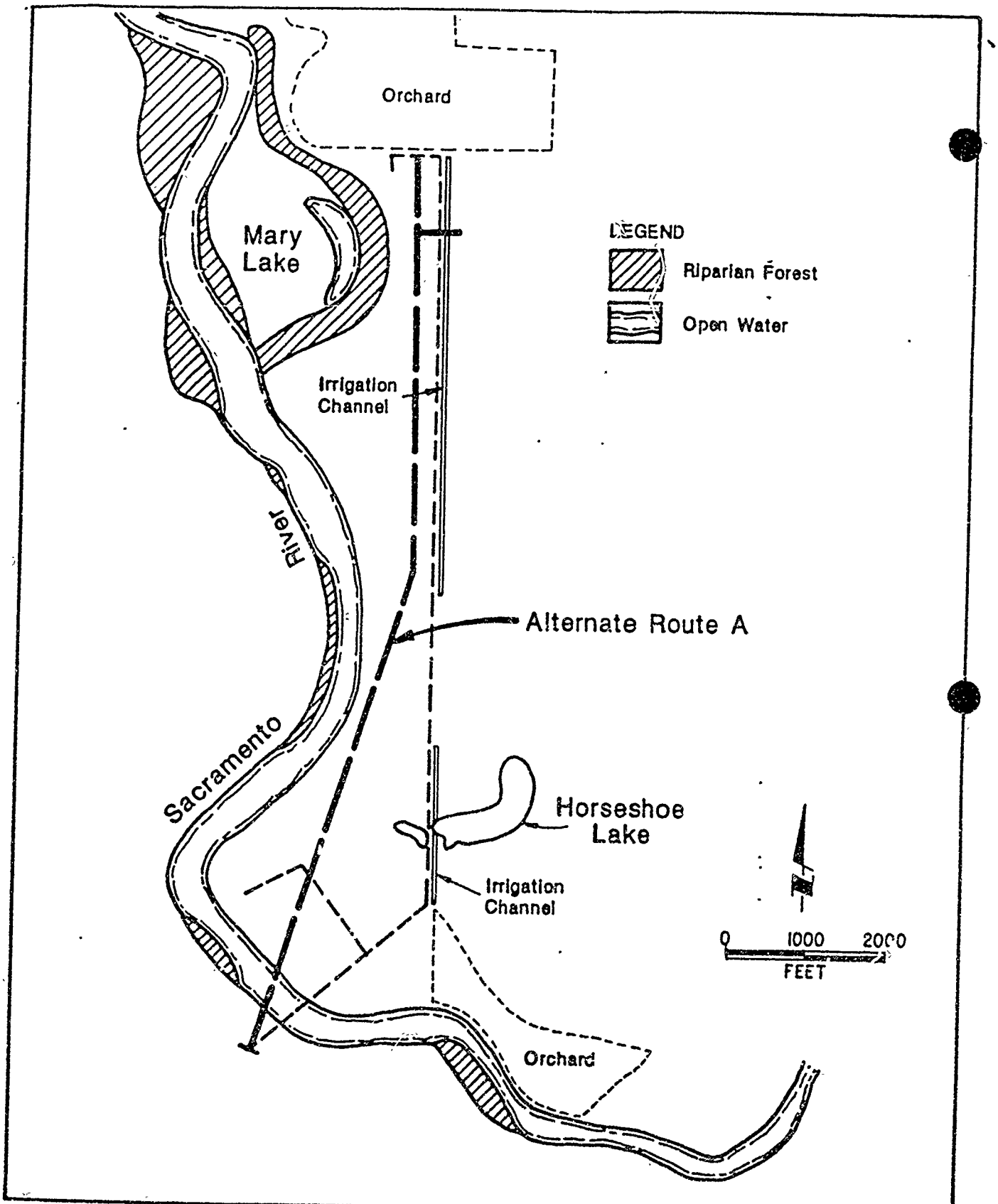

Figure 2. Location of the Proposed Alternate Route A Alignment of the Chevron Natural Gas Pipeline Project, Sutter County, California

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EXHIBIT "D"

MONITORING PROGRAM

FOR

CHEVRON KNIGHTS LANDING EASTSIDE GATHERING SYSTEM

W 24544

IMPACT: Soil will be disturbed during the excavation of a 20" x 2.5 mile trench to bury an 8" natural gas pipeline along the upland portions of the route, and at the location of two staging areas, approximately 40' x 100', located on the upland sides of the river to be used for excavating a bore hole under the river.

PROJECT MODIFICATION:

The soil displaced from the trench will be used to refill the trench and the site returned to pre-construction surface relief.

MONITORING:

Staff of the State Lands Commission, or its designated representative, will monitor pre and post site conditions for post construction site compliance.

IMPACT: Fugitive dust on construction access roads may occur as a result of construction equipment use during the construction period.

PROJECT MODIFICATION:

Access roads on the construction site will be watered to keep fugitive dust to a minimum.

MONITORING:

Staff of the State Lands Commission, or its designated representative will periodically monitor construction activity to ensure compliance with the project modification for this impact.

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Monitoring Program
W 24544

IMPACT: The proposed project will be constructed within an area designated floodplain and which could be affected by periods of flooding during inclement weather.

PROJECT MODIFICATION:

The construction and placement of the pipeline will occur during late spring or summer, and will not occur during flood periods.

MONITORING:

Staff of the State Lands Commission, or its designated representative, will be notified a minimum of 72 hours prior to the start of construction. Commission staff will ensure weather and soil conditions are adequate to begin construction activity.

IMPACT: The proposed project will be located in the vicinity of and could have an impact on significant riparian habitat and State-listed, native plant species.

PROJECT MODIFICATION:

As the result of a biological survey performed by a qualified firm, the proposed Alternative Route A has been chosen to avoid environmentally sensitive biological habitat.

MONITORING:

Staff of the State Lands Commission, or its designated representative, will verify that the pipeline is constructed within the designated right-of-way.

IMPACT: The proposed construction project will involve temporary increases in the existing noise levels which will occur approximately 2.5 miles southeast of Knights Landing.

PROJECT MODIFICATION:

The construction activity will occur during normal daytime working hours. Construction activity will be completed within a three-week period.

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MONITORING:

Staff of the State Lands Commission, or its designated representative, will be on the construction site periodically to ensure compliance with the project modifications.

IMPACT: The proposed construction project has the potential to involve explosion or spillage of fuel during welding activities or use of construction machinery.

PROJECT MODIFICATION:

Best construction management precautions will be taken by the project operators to minimize the potential of accidents during construction activities. Proper fire control equipment will be available on the construction site for the duration of the construction period.

MONITORING:

Staff of the State Lands Commission, or its designated representative will periodically monitor construction activity to ensure compliance with the identified project modification.

IMPACT: The proposed project will be constructed in the vicinity of an area which has the potential to contain cultural resources.

PROJECT MODIFICATION:

If artifacts are discovered during construction activity, all work will cease immediately in the vicinity of the find. A qualified archaeologist will be employed to inspect the articles and determine appropriate action.

MONITORING:

Staff of the State Lands Commission, or its designated representative, will be on the construction site periodically to ensure compliance with the identified project modification.

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