

MINUTE ITEM
This Calendar Item No. C05
was approved as Minute Item
No. 05 by the State Lands
Commission by a vote of 3
to 0 at its 10/28/96
meeting.

CALENDAR ITEM
C05

A 2

10/28/96

S 4

PRC 7913W 25324

Burks

GENERAL LEASE - RIGHT OF WAY USE

APPLICANT:

Slawson Exploration Company, Inc.
1625 Broadway, Suite 1450
Denver, Colorado 80202

AREA, TYPE LAND AND LOCATION:

A 0.46 acre parcel, more or less, of tide and submerged land located in the Sacramento River, a portion of Section 22, T14N, R1E, MDM, near the Town of -- Grimes, Colusa and Sutter Counties.

LAND USE:

Construction of a four-inch welded steel natural gas pipeline to extend Slawson's existing gas gathering system in Sutter County next to the Stafford #14-1 well (off Grimes Road) across the Sacramento River to Colusa County connecting to Slawson's existing Browning #4 gas gathering system near Wilson Bend Road.

PROPOSED LEASE TERMS:

Lease period:

Twenty years beginning October 1, 1996.

Surety bond:

\$10,000

Public liability insurance:

Combined single limit coverage of \$1,000,000.

CONSIDERATION:

\$104 per annum; with the State reserving the right to fix a different rental on each fifth anniversary of the beginning date of this lease.

CALENDAR ITEM NO. C05 (CONT'D)

BASIS FOR CONSIDERATION:

Pursuant to 2 Cal. Code Regs. 2003.

APPLICANT STATUS:

Applicant is permittee of upland.

PREREQUISITE CONDITIONS, FEES AND EXPENSES:

Filing fee and processing costs have been received.

STATUTORY AND OTHER REFERENCES:

- A. Public Resources Code: Div. 6, Parts 1 and 2; Div. 13.
- B. Cal. Code Regs.: Title 2, Div. 3; Title 14, Div. 6.

AB 884:

11/12/96

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 Mitigated Negative Declaration identified as ND 677, State Clearinghouse No. 96082094. Such Proposed Mitigated Negative Declaration was prepared and circulated for public review pursuant to the provisions of the CEQA.

Based upon the Initial Study, the Proposed Mitigated Negative Declaration, and the comments received in response thereto, there is no substantial evidence that the project will have a significant effect on the environment. (14 Cal. Code Regs. 15074(b)).

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

CALENDAR ITEM NO. C05 (CONT'D)

APPROVALS OBTAINED:

Reclamation District No. 108 (Colusa County); Reclamation District No. 1660 (Sutter County); State Reclamation Board; U.S. Army Corps of Engineers.

FURTHER APPROVALS REQUIRED:

California State Lands Commission.

EXHIBITS:

- A. Land Description
- B. Location Map
- C. Mitigated Negative Declaration (SCH 96082094)
- D. Summary of Mitigation Measures Incorporated into the Proposed Project

IT IS RECOMMENDED THAT THE COMMISSION:

1. CERTIFY THAT A PROPOSED MITIGATED NEGATIVE DECLARATION, ND 677, STATE CLEARINGHOUSE NO. 96082094, 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 PROPOSED MITIGATED NEGATIVE DECLARATION AND DETERMINE THAT THE PROJECT, AS APPROVED, WILL NOT HAVE A SIGNIFICANT EFFECT ON THE ENVIRONMENT.
3. ADOPT THE MITIGATION MONITORING PROGRAM, AS CONTAINED IN EXHIBIT "D" ATTACHED HERETO.

AUTHORIZATION:

AUTHORIZE ISSUANCE TO SLAWSON EXPLORATION COMPANY, INC. OF A TWENTY-YEAR GENERAL LEASE - RIGHT OF WAY USE BEGINNING OCTOBER 1, 1996; IN CONSIDERATION OF ANNUAL RENT IN THE AMOUNT OF \$104, 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 PUBLIC LIABILITY INSURANCE FOR COMBINED SINGLE LIMIT COVERAGE OF \$1,000,000; FOR CONSTRUCTION

CALENDAR ITEM NO. C05 (CONT'D)

OF A FOUR-INCH WELDED STEEL NATURAL GAS PIPELINE TO EXTEND SLAWSON'S EXISTING GAS GATHERING SYSTEM IN SUTTER COUNTY NEXT TO THE STAFFORD #14-1 WELL (OFF GARMIRE ROAD) ACROSS THE SACRAMENTO RIVER TO COLUSA COUNTY TO SLAWSON'S EXISTING BROWNING #4 GAS GATHERING SYSTEM NEAR WILSON BEND ROAD; ON THE LAND DESCRIBED ON EXHIBIT "A" ATTACHED AND BY REFERENCE MADE A PART HEREOF.

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LAUGENOUR AND MEIKLE
CIVIL ENGINEERS

2124-5
May 6, 1996
P.J.A.
Revised July 1, 1996

DESCRIPTION
for
SLAWSON EXPLORATION COMPANY, INC.
PROPOSED BORE LOCATION
SACRAMENTO RIVER MILE 120.9
SECTION 22, TOWNSHIP 14 NORTH, RANGE 1 EAST,
MOUNT DIABLO MERIDIAN
COLUSA AND SUTTER COUNTIES

A portion of Section 22, Township 14 North, Range 1 East, Mount Diablo Meridian, in Colusa and Sutter Counties, California, being more particularly described as follows:

A strip of land fifty (50) feet wide, lying twenty-five (25) feet on each side of the following described centerline.

Beginning at a point in the center of the West Levee of the Sacramento River that is distant North 55° 15' 49" East 4826.13 feet from the Northeast corner of that 195.89 acre parcel as shown on that Record of Survey, filed October 11, 1968, in Book 4 of Record of Survey, at Page 15, Colusa County Records; thence, from said POINT OF BEGINNING, South 87° 35' 14" East 580.97 feet to a point on the East Levee of the Sacramento River and the end of this strip of land.

EXCEPTING THEREFROM any portion lying above the ordinary low water marks of the Sacramento River.



This exhibit is solely for purposes of generally defining the lease premises, and is not intended to be, nor shall it be construed as, a waiver or limitation of any State interest in the subject or other property.

EXHIBIT "A" 36
MINUTE BOOK 25324 PC2401

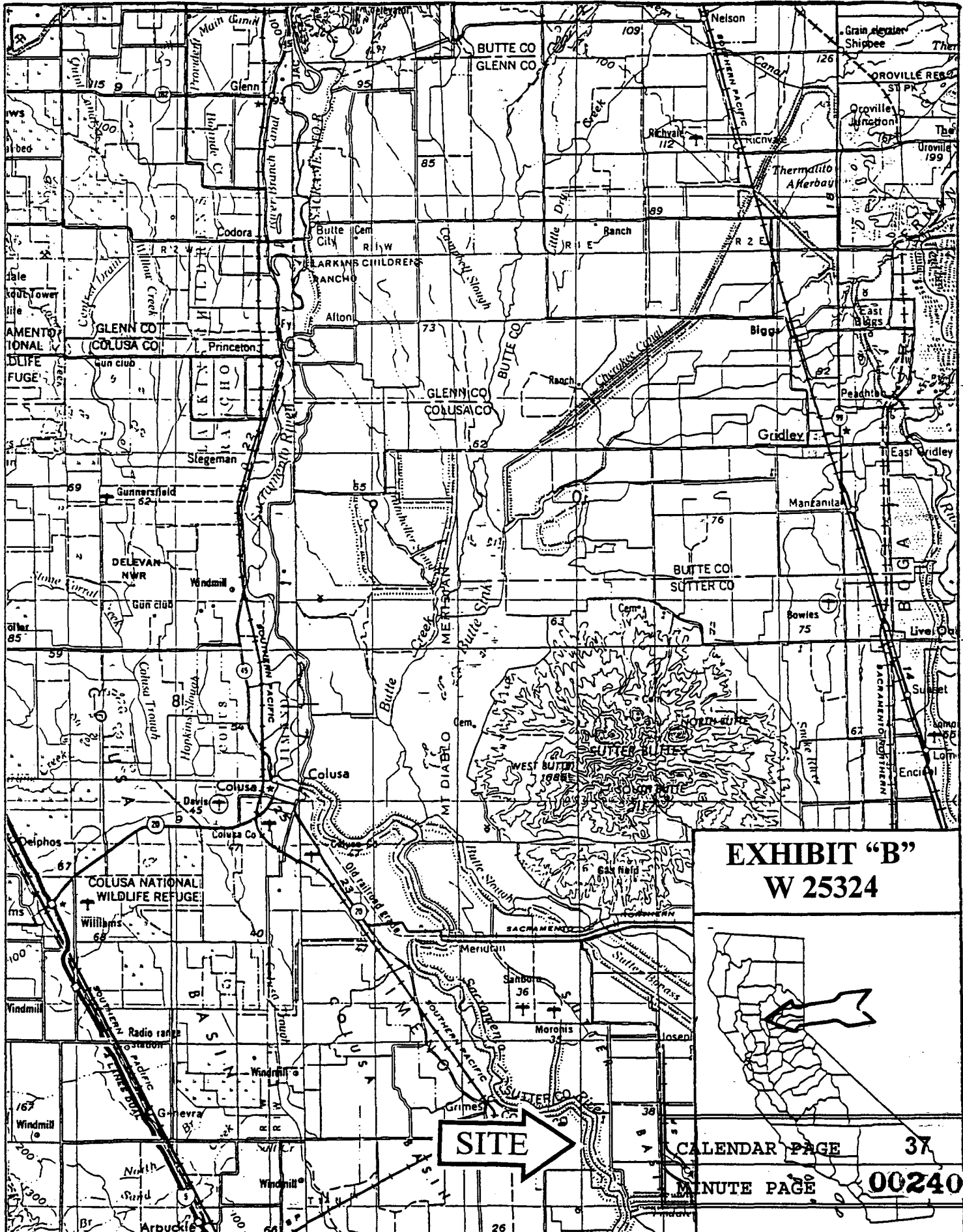
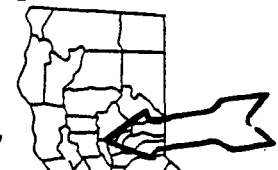


EXHIBIT "B"
W 25324



SITE →

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**CALIFORNIA STATE
LANDS COMMISSION**100 Howe Avenue, Suite 100-South
Sacramento, CA 95825-8202**ROBERT C. HIGHT, Executive Office**

(916) 574-1800 FAX (916) 574-1811

California Relay Service From TDD Phone 1-800-735-2921

from Voice Phone 1-800-735-2921

August 27, 1996

File: W25324

ND 677

SCH: 96082094

**NOTICE OF PUBLIC REVIEW
AND INTENT TO ADOPT A
PROPOSED NEGATIVE DECLARATION
(SECTION 15073 CCR & SECTION 21092 PRC)**

A Negative Declaration has been 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 State Lands Commission Regulations (Section 2901 et seq., Title 2, California Code Regulations) for a project application currently being processed by the staff of the State Lands Commission.

This document is attached for your review. Comments should be addressed to the State Lands Commission office shown above with attention to the undersigned. All comments must be received by September 25, 1996.

The Negative Declaration will be considered for adoption at a meeting of the State Lands Commission no earlier than October, 1996. You will be notified of the date and location at least 10 days prior to the meeting.

Should you have any questions or need additional information, please call the undersigned at (916) 574-1893.

GOODYEAR K. WALKER
Division of Environmental
Planning and Management

Attachment

EXHIBIT "C"

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**CALIFORNIA STATE
LANDS COMMISSION**100 Howe Avenue, Suite 100-South
Sacramento, CA 95825-8202
ROBERT C. HIGHT, Executive Officer
 (916) 574-1800 FAX (916) 574-1810
 California Relay Service From TDD Phone 1-800-735-2922
 from Voice Phone 1-800-735-2929
PROPOSED NEGATIVE DECLARATIONFile:W25324
ND 677

Project Title: Stafford Pipeline Extension

Proponent: Slawson Exploration Company, Inc.

Project Location: Sutter and Colusa Counties.

Project Description: A four inch welded steel pipeline will be installed under the Sacramento River between Sutter County and Colusa County near the Tisdale By-Pass.

Contact Person: Goodyear K. Walker Phone: (916) 574-1893

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.

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

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Initial Study/Mitigated Negative Declaration

**Stafford Pipeline Extension
Sacramento River Crossing**

Prepared for:

California State Lands Commission
100 Howe Avenue, Suite 100 South
Sacramento, CA 95818-1914
Contact: G. Kirk Walker
916/574-1893

Prepared by:

Jones & Stokes Associates, Inc.
2600 V Street, Suite 100
Sacramento, CA 95818-1914
Contact: Michael Langley
916/737-3000

August 2, 1996

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SLAWSON EXPLORATION COMPANY, INC.
STAFFORD PIPELINE EXTENSION
SACRAMENTO RIVER CROSSING

Project Description

1. Overview of Project:

A. Applicant - Slawson Exploration Company, Inc. (SECI) is an independent, privately owned gas gathering and production company presently operating in Colusa and Sutter Counties. SECI has designed and constructed, and now owns and operates, nearly five (5) miles of gas gathering pipelines. Although SECI is not considered a utility, it constructs and operates in compliance with regulations as found in the *Code of Federal Regulations, Title 49, Transportation, Subchapter D. Pipeline Safety, U.S. Department of Transportation* and the *California Public Utilities Commission General Order No. 112D*. These regulations provide strict guidelines for the design, construction, and operation of pipelines as may be operated by SECI. All of the pipelines operated by SECI are equipped with the applicable safety devices and systems as required.

B. Project Brief - SECI proposes to install a four-inch welded steel natural gas pipeline beneath the Sacramento River between the east side of the Sacramento River, in Sutter County, and the west side of the Sacramento River, in Colusa County (Figures 1, 2, and 3). The crossing of the Sacramento River will be accomplished utilizing horizontal directional boring technology. The construction procedure is environmentally safe and causes minimal disruption to any landowner activity. The actual length of the bored crossing will be approximately 1,050 feet and will maintain a minimum clearance beneath the riverbed of 35 feet. The construction time is estimated to be 2-3 days during daylight hours only and will involve 4 crew members. The project area is not viewable from the public road, as the construction area is on private agricultural property and set back at least 800 feet from public roads. In addition, the entry and exit points are in or adjacent to agricultural areas so that any impacts from dust emission will be minimal. All equipment used will have industry standard mufflers to assure that noise is kept at a minimum. Travel will also be minimal, as only one or two trucks will enter or exit the site during the construction. The California State Lands Commission, the primary jurisdictional body involved in this project, is the lead agency.

C. Siting - The project site for the pipeline crossing is the main channel of the Sacramento River. It is bounded on both shores by levees which are maintained by Reclamation Districts on each side of the river. The upland areas, outside of the levees, are on private agricultural lands. There are no known cultural, historic, or archaeological features in the area of the project which will be impacted during either construction or operation of the pipeline. All construction activity will take place on private agricultural land outside the bounds of the Sacramento River levees. The bore entry point will be set back over 150 feet from the west bank of the Sacramento River, in Colusa County, and the bore exit point will be set back approximately 200 feet from the east bank of the Sacramento River, in Sutter County. No disturbance or removal of any vegetation, other than agricultural, is involved, nor is there anticipated to be any displacement of endangered species during this short project. In addition, a soil exploration boring was taken by Raney Geotechnical of Sacramento at the entry point of the project to confirm the suitability and stability of the soil for a bore at this location.

D. Cultural Resources - The project site is located along the Sacramento River, which is considered a highly sensitive area for cultural resources. Because of the high sensitivity of this location, subsurface cultural resources could be unearthed during project activities, which could result in their destruction or damage. If cultural materials

are located during project activities, work should be halted so that their significance can be determined by a qualified archaeologist. The State Lands Commission will be notified immediately in the event that cultural resources are encountered.

E. Schedule-Installation of this project is scheduled to occur during a 2- to 3-day period following approval by the State Lands Commission, probably in October or November, 1996.

F. Purpose - The proposed pipeline crossing is a project to extend SECI's existing gas gathering system in Sutter County near the Stafford #14-1 well (off Garmire Road) across the Sacramento River to Colusa County connecting to SECI's existing Browning #4 gas gathering system near Wilson Bend Road. The project is intended to enhance the gas gathering system and provide a sales outlet for gas production in Sutter County. Any future construction to SECI's pipeline gathering system will undergo whatever environmental review may be necessary with the appropriate public agencies having jurisdiction over the proposed route(s) at that time.

2. PIPELINE

A. Specifications:

1. **Materials -** The line pipe shall consist of 4.50-inch-diameter by 0.237-inch wall thickness welded steel, weighing 11.00 pounds per foot. This pipe shall meet or exceed the quality standards established in the American Petroleum Institute (API) bulletin 5L (X42). Mill welding by Electric Resistance Welding (ERW) steel will be mill-tested by radiography and hydrostatic means in conformity with API 5-L. The pipe shall be coated with 12 mils Fusion Bonded Epoxy or X-tru coatings.

2. **Design:**

Yield Pressure	5,103	PSI
Test Pressure	1,847	PSI
Maximum Working Pressure	1,318	PSI

There will be no appurtenances such as flanges, junctions, reducers, pipe supports, anchors, thrust blocks, diffusers, manholes or any other devices, within or adjacent to the bored crossing. The pipeline will be protected against external corrosion by cathodic means. Protection will consist of sacrificial anodes and cathodic test stations. Anode bed consisting of 4 each 37.5 magnesium anodes will be located at the western end of the bored crossing. Cathodic test stations will be located on both ends of the bored crossing.

B. Installation - The following is the basic construction sequence and plan for the directionally drilled river crossing of the Sacramento River on the Stafford Pipeline Extension project.

1. A comprehensive survey of the directional route of the pipeline will be conducted, and the exact entry and exit points will be established using EDM (Electronic Distance Measurement) equipment. Both horizontal and vertical control points will be established at the entry and exit points.

2. The following construction areas will be prepared:

- a. Drilling Site Area (west of river)
- b. Receiving (Exit) Site Area (east of river)
- c. Pipe String Make-up Area (east of river and next to exit site area)

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3. The product pipe string (4.505 Inch ERW 0.237 Inch Wall ASTM Grade X42 Coated Pipe) will be welded out, radiographically inspected, and hydrostatically tested to 1,847 psi.
4. Drilling contractor will mobilize equipment to drilling site. This equipment will include:
 - a. (1) Small drilling rig
 - b. (1) Mud pump trailer
 - c. (1) Backhoe
 - d. (2) Sideboom tractors
 - e. (2) Hydraulic boom trucks
 - f. (1) Excavator

Access to the respective sides of the river is by either county road or state highway. There are adequate parking and storage areas at entry and exit areas. No clearing or disturbance of work areas is required, as these areas are presently used for agricultural equipment access and storage.

5. A steering tool system consisting of a probe located in the drilling head assembly, interface unit and computer workstation will be used. The probe is the heart of the steering tool system and has six sensors which allow the driller to track the direction of the bore. A pilot hole utilizing the probe will be drilled and horizontal and vertical adjustments will be made at approximately 15-foot intervals to assure that the drilling profile matches the planned profile. Drilling mud (Bentonite slurry) will be used during advancement to erode the formation and aid in stabilizing the pilot hole.
6. Upon completion of the pilot hole, the steerable bottom hole assembly will be replaced with a reaming device of approximately 6 inches in diameter. The reamer will then be rotated and pulled back along the pilot hole profile toward the entry side. Bentonite slurry will be injected through the drill string to the reamer providing a carrier for the reamer cuttings and stabilizing the reamed hole. When the reamer reaches the entry side it will be pushed back through the hole to the exit side with Bentonite again injected to stabilize the hole.
7. The reamer assembly will then be replaced by a pulling swivel and circulating sub assembly. The product pipe will be made up to this assembly and the entire product string will be pulled into the hole. Bentonite slurry will be injected from the circulating sub to fill the annular space between the pipe and the reamed wall of the hole. All excess Bentonite slurry, with entrained bore "cuttings," will be hauled off-site and disposed of at an approved disposal area.
8. Drilling contractor will rig down and move equipment from location. Conventional pipe tie-ins will be made to the existing Stafford and Browning Gathering Pipelines, and entry and exit points backfilled.

C. Quality Control - All construction including pipe joining (welding) will be in accordance with the requirements of the *Code of Federal Regulations, Title 49, Transportation, Subchapter D, Pipeline Safety, U.S. Department of Transportation* and the *California Public Utilities Commission General Order No. 112D*. The joining of pipe will be by the electric arc process. All welders will be qualified in accordance with the requirements of API Standard 1104 Section 3. All electrodes used for pipe joining (welding) will conform to ASTM Grades E6010, E7010, E8010 as applicable. All welds will be radiographically inspected in accordance with the requirements of API 1104. Required hydrostatic tests will be conducted and documented in accordance with the requirements of CPUC II 2-D paragraphs 192.503 and 192.505.

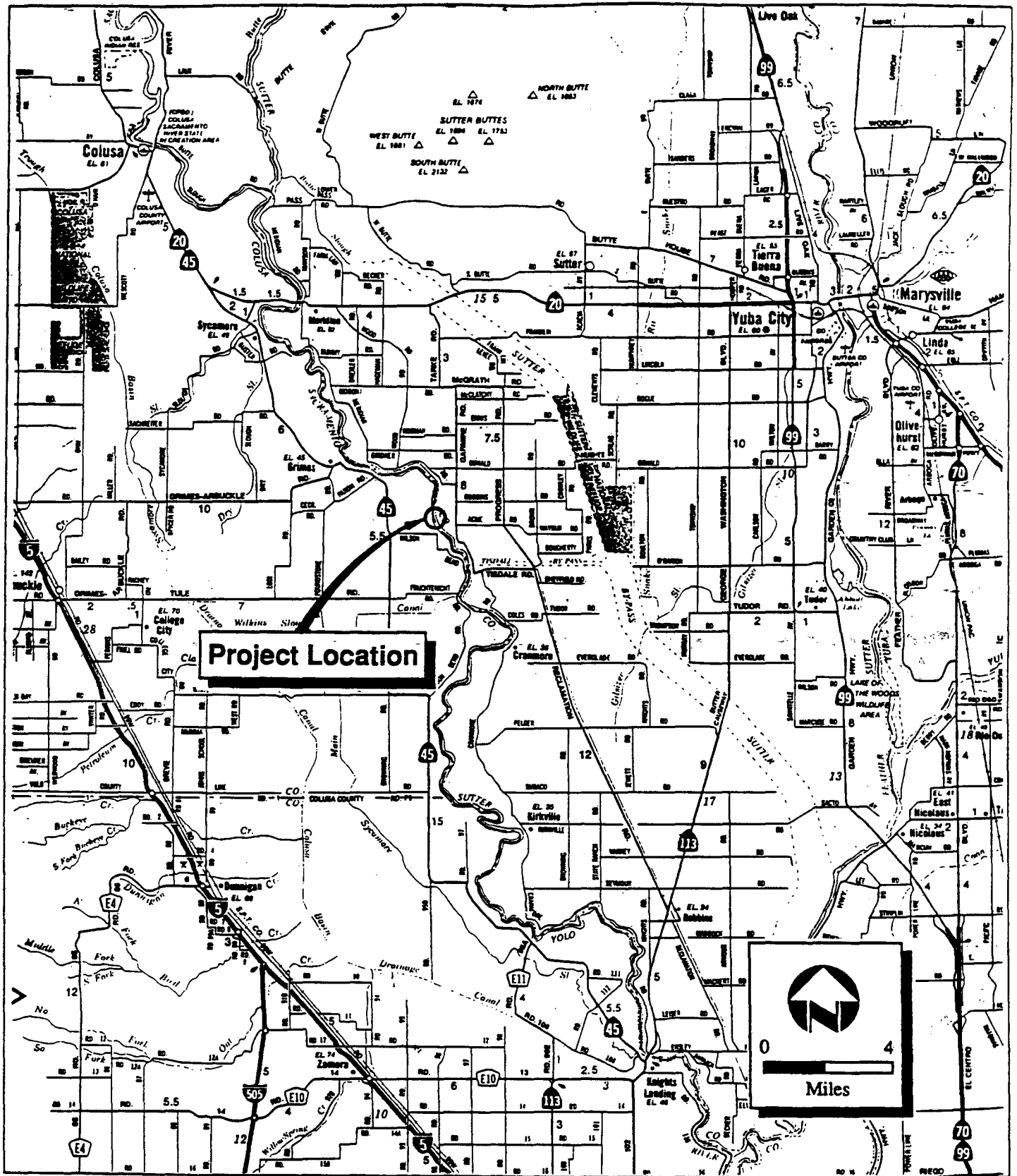
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Contingency Plans-SECI has the following contingency plans on file with the State Lands Commission:

Subsurface Rupture Contingency Plan
Abandonment Contingency Plan
Operation, Maintenance and Emergency Response Plan
Hazardous Material Contingency Plan
Construction Plan

These plans are included with this Initial Study as Appendix C.

E. Hazardous Materials-The only known hazardous materials on the site during construction will be fuels and lubricants in the construction equipment. SECI has a hazardous materials contingency plan on file with its State Lands Commission Application which would be implemented if there was a leak of fuels or lubricants from any equipment on site. This plan includes the maintenance of on-site equipment sufficient to control and extinguish any fire which could result from the welding, cutting or related work necessary for pipeline construction.



Base map: USGS Tisdale Weir, California 1952, photorevised 1973.



Jones & Stokes Associates, Inc.

Figure 1

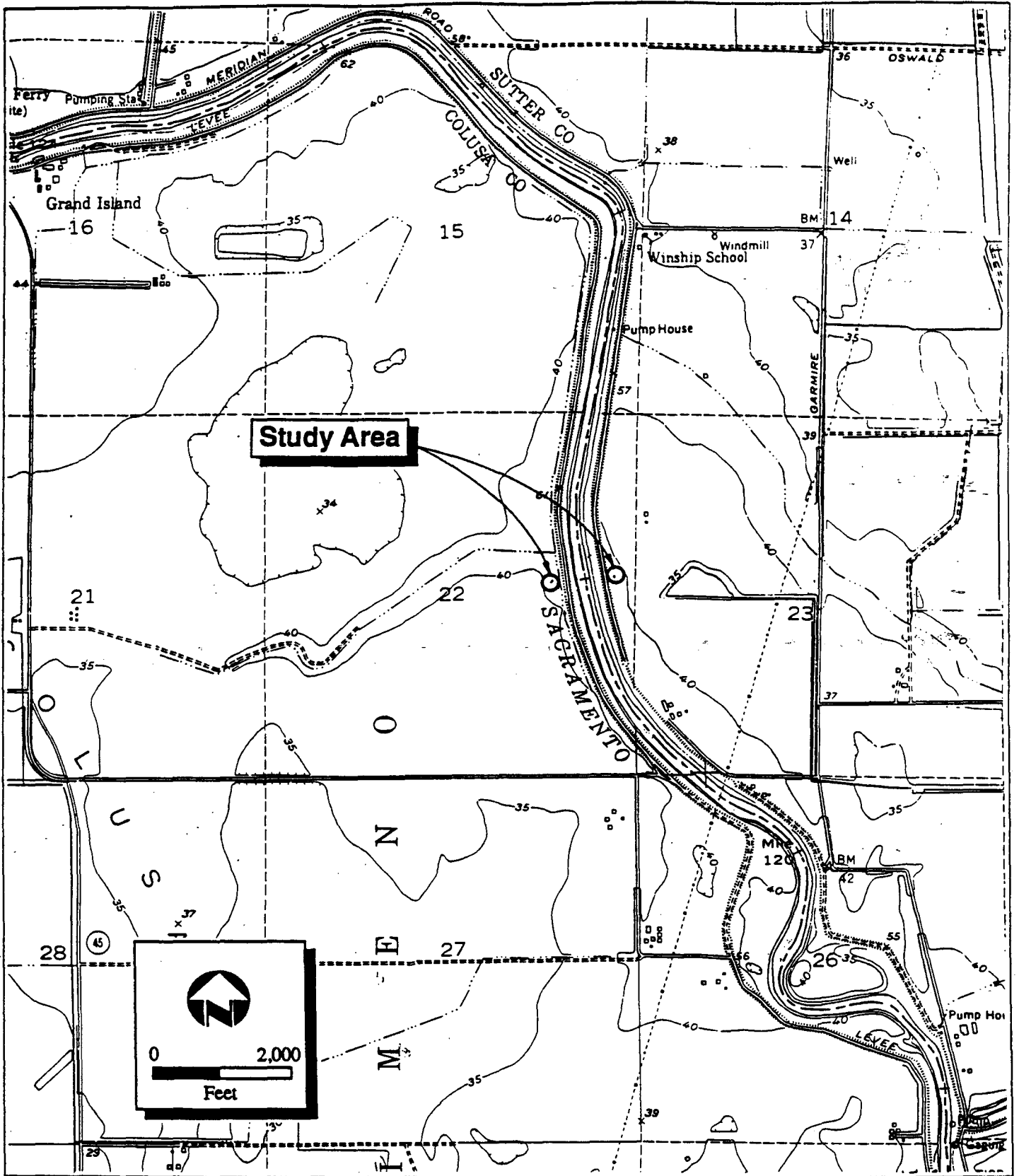
Project Location

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Base map: USGS Tisdale Weir, California 1952, photorevised 1973.



Jones & Stokes Associates, Inc.

Figure 2

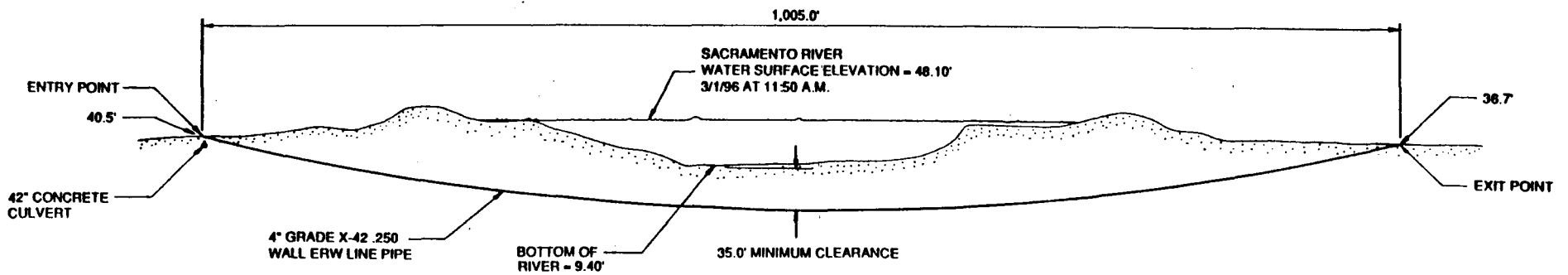
Study Area

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Jones & Stokes Associates, Inc.

Figure 3
Cross Section of Pipeline

INITIAL STUDY CHECKLIST

I. BACKGROUND

1. Project Title: Stafford Pipeline Extension Project
2. Name of Project Applicant: Slawson Exploration Company, Inc. (Contact: Todd Slawson)
3. Address and Phone Number of Applicant: 1625 Broadway, Suite 1450, Denver, CO 80202
Phone: 303/592-8881
4. Lead Agency and Contact Person: State Lands Commission (Contact: G. Kirk Walker)
5. Lead Agency Address and Phone Number: 100 Howe Avenue, Suite 100 South, Sacramento, CA 95825-8202
Phone: 916/574-1893
6. Date Checklist Completed: August 2, 1996
7. Party Completing Checklist: Jones & Stokes Associates, Inc. (Contact: Michael Langley), 2600 V Street, Suite 100, Sacramento, CA 95818-1914. Phone: 916/737-3000
8. Project Location: The project extends from an entry point in Colusa County under the Sacramento River channel to an exit point in Sutter County (Figures 1, 2, and 3). In Colusa County, the project starts from a point approximately 150 feet west of the bank of the Sacramento River and approximately 1.8 miles southeast of the community of Grand Island. In Sutter County, the project is located approximately 200 feet east of the bank of the Sacramento River and approximately 1.9 miles northwest of the Tisdale Weir.
9. General Plan Designation: Colusa County: General Agriculture; Sutter County: Agricultural Cropland (20-acre minimum lot size)
10. Zoning Classification: Colusa County: EA (Exclusive Agriculture); Sutter County: General Agriculture
11. Description of Project (*Describe the whole action involved, including but not limited to, later phases of the project, and any secondary, support, or offsite features necessary for its implementation. Attach additional sheets if necessary*): See preceding section of this report
12. Surrounding Land Uses and Setting (*Briefly describe the project's surroundings*): The project sites are located in rural portions of Colusa and Sutter Counties. The entry point in Colusa County is located in an agricultural field used for wheat production. Land uses on the Colusa County (west) side of the Sacramento River consist primarily of agricultural cropland and are sparsely populated. A drainage exists between the edge of the agricultural field and the toe of the Sacramento River levee. The exit point in Sutter County is located in an unimproved farm road. Land uses on the Sutter County (east) side also consist of agricultural cropland. The Sacramento River defines a portion of the boundary between Colusa and Sutter Counties, flowing generally from north to south through a channel lined by levees. Riprap-type erosion protection has been constructed on the riverbank on the Colusa County side, near the entry point. Minimal vegetation exists on this portion of the riverbank. No riprap exists on the Sutter County side near the project site. A narrow band of riparian vegetation is located between the levee crown and water's edge in this area. ~~Recreational uses, such as fishing and boating, occur in the Sacramento River.~~

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13. Other Agencies Whose Approval Is Required (e.g., permits, financing approval, or participation agreement): Permit or endorsement applications have been filed with the following agencies: Reclamation District 108 (Colusa County), Reclamation District 1660 (Sutter County), State Lands Commission, State Reclamation Board, and U.S. Army Corps of Engineers.

II. EVALUATION OF ENVIRONMENTAL IMPACTS

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault-rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. "Potentially Significant Impact" is appropriate if there is *substantial evidence* that an effect is significant.
4. Mitigation Identified: *Negative Declaration* applies where the incorporation of mitigation measures has reduced an effect from potentially significant to less than significant. The lead agency must describe the mitigation measures and briefly explain how they reduce the effect to a less-than-significant level.
5. No Mitigation Identified: *EIR* applies where there is substantial evidence that an effect is significant and no mitigation is identified or more analysis is needed. When this determination is made, an EIR is required.
6. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration (State CEQA Guidelines Section 15063[c][3][D]).
7. References to information sources for potential impacts (e.g., general plans, zoning ordinances) should be provided. Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated. A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

III. ENVIRONMENTAL ANALYSIS

Include explanations for all answers by adding text to form or on attached pages.

	Potentially Significant Impact		
	No Impact	Less-than-Significant Impact	Mitigation Identified - Negative Declaration No Mitigation Identified - EIR
1. Land Use and Planning			
a. Does the project conflict with adopted land use plans or policies that are applicable to the project site or to the project vicinity? [Note that on a project-specific basis, such applicable land use plans and policies may include those imposed by local agencies, by local or regional agencies, and by statewide land use agencies.]		X	
b. Would the project conflict with open space, low-income housing, or other adopted land use goals that are applicable to the project location?		X	
c. Would the project conflict with established recreational, educational, religious, or scientific uses at the project location?		X	
d. Would the project require cancellation of Williamson Act agricultural contracts, or convert agricultural land to a non-agricultural use within an area designated as Important Farmland by the Department of Conservation, or an area designated as Prime Farmland by the U.S. Natural Resources Conservation District of the federal Department of Agriculture?		X	
e. Would the project cause a nuisance to existing or planned land uses? Would existing or planned land uses cause a nuisance to the residents or users of the project?		X	

The proposed project would require construction in areas that are designated and currently used for agricultural cropland uses in both counties (Hindbaugh 1996, Farhar 1996). As stated in the project description, the project would be constructed during a 2- to 3-day period. The State Lands Commission will be notified at least 24 hours in advance of the beginning of the directional bore. After the pipeline is installed, the entry and exit points for the boring operation would be backfilled and restored to original conditions. The pipeline would then be connected to existing subsurface mainlines. No permanent surface structures would be constructed. There would, therefore, be only a short-term disturbance of a limited ground-surface area at the entry and exit points; there would be no long-term changes in land use. Agricultural operations and productivity would not be affected. No conflicts with onsite or adjacent land uses would result. The project would be consistent with existing land use plans and policies.

Because the pipeline would be bored under the Sacramento River, there would be no disturbance to the riverbed, banks, or levees except in upset conditions. Recreational uses associated with the Sacramento River would not be affected. Construction activities would not be viewable by recreational users of the river because the levees would screen views of the construction sites from the river.

The project involves short-term construction in an area that is sparsely populated and used primarily for agricultural production. Construction noise may be considered a nuisance to some residents in this area. However, project construction would occur only during daylight hours over a very short duration of 2-3 days. In addition, no residences are located within 0.5 mile of the project. There are no nuisance conditions that would exist after the project is completed.

The proposed project is being constructed to address current needs with regard to natural gas infrastructure to support distribution of natural gas from existing production wells. Potential effects associated with any future gas exploration projects that may connect to the proposed pipeline would be addressed in separate environmental documents. At the present time, there are no known gas exploration projects under proposal in the immediate area that would use this pipeline.

	No Impact	Potentially Significant Impact	
		Less-than-Significant Impact	Mitigation Identified - Negative Declaration No Mitigation Identified - EIR
2. Population, Employment, and Housing			
a. Does the project conflict with population, employment, or housing policies or projections established by government agencies with jurisdiction over the project?	X		
b. Will the project directly or indirectly cause substantial growth or concentration in the population beyond current levels?	X		
c. Will the project directly or indirectly cause a net loss in the number of jobs in the community or cause substantial job or income losses by changing the employment opportunities in a community?	X		
d. Does the project displace existing residences or otherwise create or exacerbate a housing shortage?	X		

This project involves short-term construction of natural gas infrastructure and would not generate any changes to population, housing, or employment in this region.

	No Impact	Potentially Significant Impact	
		Less-than-Significant Impact	Mitigation Identified - Negative Declaration No Mitigation Identified - EIR
3. Geology, Soils, and Seismicity			
a. Would the project conflict with applicable legal requirements regarding geohazards and soil conservation?	X		
b. Is the project likely to expose people or structures to significant geohazards? In particular, is the project located within an Alquist-Priolo Special Studies Zone, within a known active fault zone, in an area characterized by surface rupture that might be related to a fault, or in an area designated as geologic hazard area or subject to geohazard safety measures in a local plan or ordinance?		X	
c. Does the substrate at the project site consist of material that is subject to liquefaction or other secondary seismic hazards in the event of ground shaking?	X		
d. Is there any evidence of static hazards, such as landsliding or slopes in excess of 15%, that could result in slope failure?	X		

		Potentially Significant Impact			
		No Impact	Less-than-Significant Impact	Mitigation Identified - Negative Declaration	No Mitigation Identified - EIR
e.	Is the project located on or in the vicinity of soil that is likely to collapse or subside, as might be the case with fill, old mining properties, or areas of subsidence caused by groundwater drawdown?	X			
f.	Are soils characterized by shrink/swell potential that might result in deformation of foundations or damage to structures?	X			
g.	Would the project result in substantial soil erosion or loss of topsoil?	X			
h.	Would the project result in loss of (or lost access to) mineral resources, including rock/sand/gravel resources, or other known resources such as those identified in a Mineral Resource Zone identified by the California Department of Mines and Geology?	X			
i.	Would the project result in loss of a unique geographical feature of statewide or national significance?	X			

The entry and exit points for this project are situated on ground that has been leveled to support agricultural production. The project area is generally flat, and the period of ground disturbance would be brief; thus, no significant soil erosion is expected.

No known faults exist in the project area. The nearest recorded fault is the Willows Fault Zone, located approximately 5 miles from the project sites. This is a pre-Quaternary fault with an estimated age of more than 1.6 million years. There has been no recognized displacement from fault activity in this zone. (Jennings 1994.) In addition, the project sites are not located in an Alquist-Priolo Special Studies Zone (Hart 1994). Although damage to property (the new pipeline) may occur during an earthquake, this project would not expose people to new earthquake hazards because it would be built to all applicable codes.

		Potentially Significant Impact			
		No Impact	Less-than-Significant Impact	Mitigation Identified - Negative Declaration	No Mitigation Identified - EIR
4. Hydrology and Water Quality					
a.	Would the project conflict with applicable legal requirements relating to hydrology and water quality?	X			
b.	Would the project cause direct or indirect wastewater discharges that would result in acute or eventual exposures to levels of hazardous materials that would adversely affect human health, wildlife, or plant species? Would the project otherwise substantially degrade surface water quality?			X	

	No Impact	Less-than-Significant Impact	Potentially Significant Impact	
			Mitigation Identified - Negative Declaration	No Mitigation Identified - EIR
c. Would the project substantially degrade groundwater quality, interfere substantially with groundwater recharge, or deplete groundwater resources in a manner that would cause water-related hazards such as subsidence?	X			
d. Would the project alter the existing drainage pattern of the site or area in a manner that results in flooding, erosion, or siltation, on- or off-site?	X			
e. Is the project located in a flood-prone area, based on either historical flood records or potential risks relating to existing or planned changes to flood control measures?			X	

The entry and exit points are located in flood-prone areas that are protected from inundation by the existing levee system along the Sacramento River. Project construction would occur over a brief period and would not increase the level of flood risk exposure. The only hazardous substances to be used in the boring operation are fuels and lubricants associated with the operation of construction equipment at the sites. A nontoxic drilling mud (bentonite slurry) would be used in the bore hole. The bentonite slurry would be pumped and disposed of offsite when the project is completed. Bore cuttings would be transported offsite to an approved landfill for disposal. A hazardous materials contingency plan is on file with the State Lands Commission (Appendix C) and would be executed if fuel or lubricant spills occur at the construction sites.

If a subsurface rupture occurs or seepage of bentonite slurry is noticed in the project area, operations would stop immediately and the Subsurface Rupture Contingency Plan for a Directionally Drilled River Crossing would be implemented. A copy of the plan is on file with the State Lands Commission and is included in Appendix C. This plan includes containment and control procedures, notification procedures (for agencies such as the California Department of Fish and Game), and an evaluation plan to determine the execution of the abandonment contingency plan. The abandonment contingency plan will be executed if the bore must be abandoned.

Groundwater quality would not be degraded substantially because the intrusion into the substrate would occupy a very small area at the entry and exit points of the bored area, and because containment pits would be used, there would be no subsurface discharge of any contaminants. Both construction areas would be restored to their original condition after construction is completed.

No existing drainage patterns would be altered as part of this project because the pipeline bore will be constructed no closer than 35 feet below the natural river bed. In addition, there would be no construction that would disturb existing drainages or watercourses. No siltation impacts are expected.

	No Impact	Less-than-Significant Impact	Potentially Significant Impact	
			Mitigation Identified - Negative Declaration	No Mitigation Identified - EIR
5. Biological Resources				
a. Would the project violate any environmental law or regulation designed to protect wildlife, fisheries, plant species, or habitat areas?	X			
b. Would the project directly harm a sensitive species or cause a net loss to the habitat of the species?		X		
c. Would the project interfere substantially with the movement of any resident or migratory fish or wildlife species, or with established resident or migratory corridors?		X		
d. Would the project cause any fish or wildlife population to drop below self-sustaining levels?	X			
e. Would the project cause a net loss of any riparian lands, wetlands, marshes, or other environmentally sensitive habitat areas?	X			
f. Would the project result in the loss of any "specimen tree" or tree with historic value?	X			

Appendix A is a detailed description of the biological evaluation conducted for this project. A wildlife biologist conducted prefield research on the project area to determine the likelihood that special-status species would occur on the project sites. In addition, the entry and exit points for the boring operation were surveyed by a wildlife biologist to determine whether special-status plant and wildlife species exist on the project sites and whether the project would have an adverse effect on these species. No special-status species were encountered at the project sites.

Impacts on biological resources are expected to be minimal. Project construction would occur in relatively small areas that have been substantially disturbed by farming activities. The potential for impacts on special-status species is negligible.

	No Impact	Less-than-Significant Impact	Potentially Significant Impact	
			Mitigation Identified - Negative Declaration	No Mitigation Identified - EIR
6. Cultural and Historical Resources				
a. Would the project conflict with the cultural and historic protection measures established by federal, state, or local regulatory programs?	X			
b. Would the project cause the physical disturbance of, or prevent future access to, a prehistoric, historic, or cultural site that is listed or eligible for listing on the National Register of Historic Places, the California Register of Historic Resources, or a Register of Historic Resources that has been adopted by resolution or ordinance of a local government?		X		

	Potentially Significant Impact			
	No Impact	Less-than-Significant Impact	Mitigation Identified - Negative Declaration	No Mitigation Identified - EIR
c. Would the project cause the physical disturbance of, or prevent future access to, a structure, parcel, or other feature of historic or cultural significance to a community, ethnic, or social group?		X		
d. Would the project cause the physical disturbance of, or prevent future access to, a unique paleontological site?		X		
e. Would the project cause the disturbance of any human remains?			X	

The project sites lie within two separate jurisdictions of the California Historical Resources File System. One site is within the jurisdiction of the Northwest Information Center, and the other is within the jurisdiction of the Northeast Information Center. Records searches were conducted at both information centers. The records searches at the Northwest Information Center, located at Sonoma State University in Rohnert Park, California, and the Northeast Information Center, located at California State University, Chico, were conducted in May 1996.

The records searches were conducted to identify previously known cultural resources in or near the project area. As described in Appendix B, no resources are known to exist in the vicinity of the project.

The project sites were surveyed by an archaeologist to determine whether cultural resources exist at the sites (see Appendix B). No cultural resources were observed during the field surveys. This project would disturb two relatively small areas (approximately 5,000 square feet each). However, because the Sacramento River corridor is known as a highly sensitive area for cultural resources, the potential exists for construction crews to encounter subsurface resources during boring operations. As described in the project description, specific actions would be taken by the construction crew if subsurface resources are found. If any cultural resources, such as structural features, unusual amounts of bone or shell, artifacts, human remains, or architectural remains are encountered during construction, all work would be suspended and the State Lands Commission would be notified. Construction activity would not resume until the find has been evaluated by a qualified archaeologist and the construction site has been cleared for continued work. If human remains are found and are determined to be of Native American origin, the requirement for discovery outlined in the Native American Graves Protection and Repatriation Act shall apply.

	Potentially Significant Impact		
	No Impact	Less-than-Significant Impact	Mitigation Identified - Negative Declaration

7. Traffic and Transportation

- | | |
|--|---|
| a. Would the project cause a new violation, or exacerbate an existing violation, of an applicable legal standard or goal relating to traffic levels of service (LOS) or volume/capacity (V/C) ratios, of a state or local agency? (LOS ratings range from "A" to "F", with many California agencies ranking "E" and "F" as unacceptable. V/C ratios range from 0 to 1.0, with many California agencies ranking an incremental worsening of 0.02 as unacceptable for intersections already operating at LOS E or F. These significance thresholds should be used to evaluate average and peak-hour project traffic impacts if the local agency has not adopted any particular significance standards for the project area.) | X |
|--|---|

	Potentially Significant Impact		
	No Impact	Less-than-Significant Impact	Mitigation Identified - Negative Declaration No Mitigation Identified - EIR
b. Does the project conflict with an applicable Congestion Management Plan, air quality plan, or other plan or policy relating to automobiles or transit systems, adopted by a federal, state, or local agency?			X
c. Would the project add traffic to a roadway that has design features (e.g., narrow width, roadside ditches, sharp curves, poor sight distance, inadequate pavement structure) or supports uses that would be incompatible with substantial increases in traffic (e.g., rural roads used by farm equipment, livestock, horseback riders, or pedestrians) that would result in safety problems with the addition of project-related traffic?		X	
d. Does the project have adequate internal circulation capacity, including entrance and exit routes, to safely accommodate average and peak-hour traffic loads?			X
e. Does the project provide for safe pedestrian and bicycle circulation?			X
f. Does the project provide sufficient parking capacity for the projected numbers of automobiles and bicycles? If not, is there sufficient commercial parking capacity available in the immediate project vicinity? If not, will unmet project parking demand worsen parking availability for existing residents or commercial enterprises?			X
g. Is the project currently served by the community transit program? Is there sufficient capacity on the existing transit system for the project? If not, is there an adopted and funded plan to increase transit capacity to meet project demand?			X

The existing roadways in the project area consist of county-maintained rural roadways and private farm roads that have relatively low volumes of local traffic. State Route 45 is located approximately 1 1/2 miles west of the project site in Colusa County. The proposed project would generate very little traffic in the vicinity of the project sites. The drilling operation would involve the use of eight pieces of equipment, including two trucks, that would be present for 2-3 days. The unimproved roads that would be used to reach the sites are used primarily by local farmers and have low traffic volumes. Although these roads would be used to bring the heavy construction equipment to the sites, there would be minimal impacts on traffic in the project area because the vehicles would be driven to and from the site only once. Generally, there would be no change in daily traffic volumes attributable to the project. No new access roads would be constructed. There are no impacts related to alternative modes of transportation, including mass transit.

	No Impact	Potentially Significant Impact	
		Less-than-Significant Impact	Mitigation Identified - Negative Declaration No Mitigation Identified - EIR
8. Visual Quality and Aesthetics			
a. Would the project conflict with the applicable vista protection standards, scenic resource protection requirements, and design criteria of federal, state, and local agencies?	X		
b. Does the project alter or obstruct existing public view sheds from or across the project site, including scenic features associated with designated scenic highways?	X		
c. Does the project change the existing visual quality and character at the project site in a manner that is inconsistent with other uses that currently exist or have been approved for the area? Are such changes attributable to project size, massing, density, landscaping, regrading, or other changes to the physical environment?	X		
d. Does the project increase light and glare in the project vicinity so as to cause a hazard or nuisance condition?	X		
e. Does the project significantly reduce sunlight or introduce shadows in public areas? Would loss of sunlight or increase in shadows adversely affect sensitive species or habitats?	X		

Impacts on scenic resources would be minimal because of the short-term nature of the construction activities and the small areas that would be affected. In addition, the project is approximately 1 1/2 miles from the nearest public highway and probably would not be noticeable. No significant permanent changes to surface features would occur. Project construction would not take place after sunset; thus, there would be no glare from construction lighting. Project construction activities would not be visible to individuals engaged in recreational activities on the river because of the levees, which block views to the adjacent agricultural properties.

	No Impact	Potentially Significant Impact	
		Less-than-Significant Impact	Mitigation Identified - Negative Declaration No Mitigation Identified - EIR
9. Air Quality			
a. Would the project violate any law or regulation designed to achieve or maintain compliance with ambient air quality standards or protect against adverse health effects caused by air pollution?	X		
b. Would the project violate any approved plan or policy regarding air pollution, including federal or state air quality management plans for achieving or maintaining compliance with applicable ambient air quality standards, local or regional growth or congestion management plans, and local or regional CEQA significance standards for air quality?	X		

	No Impact	Potentially Significant Impact		
		Less-than-Significant Impact	Mitigation Identified - Negative Declaration	No Mitigation Identified - EIR
c. Would the project result in a net increase of any criteria pollutant for which the project area has not attained applicable federal or state ambient air quality standards? Would such a net increase exceed any of the specific parameters listed below?		X		
d. Using the approved or established risk assessment methodologies of the air quality control agencies, would project toxic air contaminant (TAC) emissions cause a significant short- or long-term health risk? Would project TAC emissions cause an increased cancer risk of greater than 10 per million?		X		
e. Would the project require the removal or demolition of building components containing asbestos, or the excavation or crushing of serpentine rock containing asbestos?		X		
f. Would the project require the removal or movement of soils contaminated by hazardous materials that can cause adverse health impacts if airborne?		X		
g. Would the project concentrate vehicle trips or vehicle-related emissions in a localized area (e.g., intersections, parking areas), which would cause a violation of the carbon monoxide ambient air quality standard?		X		
h. Does the project have the potential to cause an odor, visibility, or other problem that would create a public nuisance condition?		X		

Both Colusa and Sutter Counties are classified as state nonattainment areas for ozone and PM10. Sutter County is also classified as a federal nonattainment area for ozone. Construction projects generally have the potential to generate ozone precursors and PM10 during earth-moving activities and from engine exhaust. In this case, however, very small ground surface areas would be affected during construction, which would take place only during daylight hours for 2-3 days. The equipment to be used is diesel powered, conforms to industry standards, and is used for boring projects regularly. Use of the equipment would have only an insignificant impact on ambient conditions. In addition, the construction area and roads, as needed, would be wet down to control dust and engine-driven equipment will be maintained in good mechanical condition. Because the period of construction is very brief, engine emissions would be relatively minor, and the contribution to regional ozone and PM10 concentrations would be negligible.

This project would not include any demolition activities or generate significant vehicle trips, directly or indirectly, that would cause significant quantities of air pollutants, including toxic air contaminants. No nuisance conditions would be created by this project.

	No Impact	Less-than-Significant Impact	Potentially Significant Impact	
			Mitigation Identified - Negative Declaration	No Mitigation Identified - EIR
10. Noise and Vibration				
a. Would the project violate any established noise or vibration law, regulation, or standard?				X
b. Would the project cause a permanent increase in ambient noise or vibration levels that would be perceptible to humans in the project vicinity, and that is perceptibly greater than the noise or vibration levels caused by existing development in the project area?				X
c. Would the project cause a temporary or periodic increase in ambient noise or vibration levels that would be perceptible to humans in the project vicinity, and that is perceptibly greater than the noise or vibration levels caused by existing development and activity in the project area?			X	
d. Can the project noise and vibration level during construction activities be limited to daylight, weekday hours and be comparable to that required for construction of existing development in the project area?				X

The project sites are located in a sparsely populated rural area with relatively low levels of ambient noise. Major noise sources in the vicinity of the project include vehicle travel on State Highway 45, recreational boating on the Sacramento River, and heavy agricultural machinery. The proposed project would generate noise from construction equipment during the 2- to 3-day boring operation, which would occur only during daylight hours. However, this noise would be comparable in magnitude to noise from agricultural operations. In addition, the nearest residences are more than 0.5 mile from the construction site. For these reasons, noise impacts from the boring operation are considered less than significant.

	No Impact	Less-than-Significant Impact	Potentially Significant Impact	
			Mitigation Identified - Negative Declaration	No Mitigation Identified - EIR
11. Utilities and Infrastructure				
a. <i>Electricity:</i> Will the project require expansions in existing electrical generating facilities and existing high-power transmission lines?				X
b. <i>Water:</i> Will the project comply with water conservation and supply requirements imposed by state and local agencies? Will the project require expansions in existing water supply treatment facilities or trunk conveyance lines? Has the water purveyor determined that it has adequate treatment facilities, conveyance capacity, and water supplies to serve project demand? Will the water supply be drawn from a groundwater basin that is overdrawn in relation to demand and historical levels?				X

	No Impact	Potentially Significant Impact	
		Less-than-Significant Impact	Mitigation Identified - Negative Declaration No Mitigation Identified - EIR
c. <i>Wastewater Treatment</i> : Will the project comply with wastewater pretreatment standards enforced by federal, state, and local regulatory agencies? Will the project require expansions of the wastewater treatment facilities and trunk conveyance lines? Has the wastewater treatment provider determined that it has adequate treatment and conveyance capacity to serve project demand?	X		
d. <i>Solid Waste</i> : Will the project comply with state and local requirements relating to recycling, litter control, and solid waste handling? Is a landfill available with sufficient capacity to accommodate on a long-term basis (10 or more years) solid waste generated by the proposed project?			X

The proposed project would not generate any new requirements for infrastructure in the project area either during construction or after construction is completed. No new requirements for electricity or wastewater treatment would be created. Minimal new water requirements would be generated but would be short term. The project would generate solid waste in the form of cuttings from the bore hole, including bentonite clay slurry. This waste material would be hauled from the site and disposed of at an approved landfill.

	No Impact	Potentially Significant Impact	
		Less-than-Significant Impact	Mitigation Identified - Negative Declaration No Mitigation Identified - EIR
12. Public Services			
a. <i>Sheriff</i> : Will the project require additional staff or equipment to maintain acceptable service ratios, response times, or other performance objectives?	X		
b. <i>Fire</i> : Will the project require additional staff or equipment to maintain an acceptable level of service (i.e., response time, equipment capacity)?	X		
c. <i>Schools</i> : Will the project increase the population of school-age children in a K-12 school district that is or will be operating without adequate staff, equipment, or facilities?	X		
d. <i>Parks and Recreation</i> : Will the project increase use of existing park and recreational facilities, or require the creation of new park and recreational facilities, to comply with locally adopted park and recreational service standards?	X		

Because this project is of a short-term nature, there would be no impacts on public services. There would be no impact on law enforcement and fire protection services beyond the routine notification of the local fire department informing it of the project. A fire watch would be maintained during any periods of cutting or welding. Public schools and local recreational facilities would not be affected.

	No Impact	Potentially Significant Impact	
		Less-than-Significant Impact	Mitigation Identified - Negative Declaration

13. Energy

- a. Does the project comply with applicable laws and regulations regarding energy conservation? **X**
- b. Does the project require quantities of nonrenewable sources of energy in excess of quantities required by recent, similar projects? **X**
- c. Do the energy suppliers have the capacity to supply the project's energy needs with existing and planned energy sources and conveyance systems? **X**

Implementing this project would result in a minimal expenditure of energy over a brief period of time. Because the project consists of constructing a natural gas pipeline, the net effect of the project would be to increase the amount of energy available to consumers.

	No Impact	Potentially Significant Impact	
		Less-than-Significant Impact	Mitigation Identified - Negative Declaration

14. Hazardous Materials

- a. Will the project comply with applicable federal, state, and local laws, regulations, and standards relating to hazardous materials? **X**
- b. Is the soil or groundwater at the project site contaminated by hazardous materials? Is such contamination known to exist at another location that is within 2,000 feet of the project site? **X**
- c. Does the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? **X**
- d. Does the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials to the environment? **X**
- e. Will the project interfere with community emergency response plans or emergency evacuation plans in the event of a reasonably foreseeable emergency situation involving a hazardous material exposure or release? **X**
- f. Are there hazardous material re-use, or one or more hazardous waste treatment or disposal, facilities available to lawfully accept and handle hazardous wastes generated by the project? **X**

No hazardous materials would be used during the construction of this project except fuel and lubricants used for the construction vehicles. Diesel fuel and the petroleum-based lubricants would be stored in approved containers and be handled in a safe manner. Fuels and lubricants would be kept at a safe distance from any potential ignition sources so as to minimize the risk of hazard. The entry and exit pits for the pipeline boring will be adequately bermed to contain any spills. A hazardous materials contingency plan (Appendix C) is on file with the State Lands Commission and will be executed in the event of a fuel or lubricant spill at the construction sites.

	Potentially Significant Impact		
	No Impact	Less-than-Significant Impact	Mitigation Identified - Negative Declaration No Mitigation Identified - EIR

15. Mandatory Findings of Significance

- a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of fish or wildlife species, cause fish or wildlife populations 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? X
- b. Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals? (A short-term impact on the environment is one that occurs in a relatively brief, definitive period of time while long-term impacts will endure well into the future.) X
- c. Does the project have impacts that are individually limited, but cumulatively significant when placed in the context of other reasonably foreseeable projects? X
- d. Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly? X

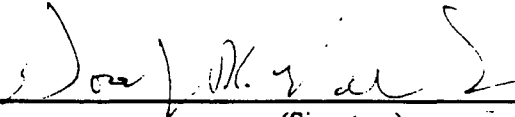
As documented in this checklist, there are no potentially significant impacts associated with this project. The proposed project includes provisions that would reduce potential impacts to less-than-significant levels. This project would not have the potential to achieve short-term environmental goals to the disadvantage of long-term goals. In addition, no cumulative impacts would result because there are no foreseeable gas exploration projects or other projects in the project area that, in combination with the proposed project, would have a significant cumulative effect on the environment. No significant adverse impacts on human beings, direct or indirect, would result.

IV. DETERMINATION BASED ON ENVIRONMENTAL EVALUATION

On the basis of this Initial Study evaluation:

- The proposed project is CATEGORICALLY EXEMPT from CEQA under Class(es) _____, and there are no unusual circumstances or specified statutory conditions present that render reliance on such applicable Categorical Exemption(s) unlawful.
- The proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION should be prepared.
- 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 [above/in the attached list] will be a required condition of project approval, and accordingly a MITIGATED NEGATIVE DECLARATION should be prepared.
- There is substantial evidence that the proposed project may have a significant adverse impact on the environment, and an ENVIRONMENTAL IMPACT REPORT should be required.

Date: August 26, 1996


(Signature)

For _____

**Appendix A. Biological Resources Inventory Report for the
Stafford Pipeline Extension Sacramento River
Crossing**

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BIOLOGICAL RESOURCES

This appendix contains information on wildlife, vegetation, and wetland resources in the study area. Information pertaining to biological resources is organized into the following categories: survey methods, survey results, and impacts and mitigation measures.

SURVEY METHODS

The information provided in this appendix is based on a prefield investigation and field visit conducted by a Jones & Stokes Associates wildlife biologist. The purpose of the field visit was to assess the habitat types and potential for special-status species to occur at the sites and determine whether the proposed installation of the gas pipeline would result in adverse effects on biological resources.

The definition of "special-status species" is provided below, and the methods used during the prefield investigation and field surveys are described below.

Definition of Special-Status Species

Special-status species are plant and animal species that are legally protected under the federal Endangered Species Act the California Endangered Species Act, or other regulations, as well as species considered sufficiently rare by the scientific community to qualify for such listing.

Prefield Investigation

A prefield investigation was conducted to identify special-status species that could occur on the project site. Part of this investigation involved searching the California Department of Fish and Game's (DFG's) Natural Diversity Data Base (NDDB) (Natural Diversity Data Base 1995) for special-status wildlife documented on the project site or surrounding areas. Jones & Stokes Associates' file information also was reviewed.

Field Surveys

A Jones & Stokes Associates wildlife biologist conducted a field survey on the project site on May 15, 1996. The survey consisted of intensive ground searches for special-status wildlife, vegetation, and wetland resources. Ground searches were conducted throughout the project site and

were concentrated in the areas proposed for the installation of the gas pipeline. During the ground searches, trees and shrubs were inspected for nests of bird species, particularly raptors. Vegetation was also inspected for special-status plants and wetland resources. All wildlife species observed during field surveys were recorded in field notes.

SURVEY RESULTS

Results of the prefield investigation and field surveys for special-status wildlife, vegetation, and wetland resources are presented below.

Prefield Investigation

No special-status wildlife or plant species were identified in the project vicinity during the NDDDB search. However, three special-status wildlife and one special-status plant species were documented in the surrounding areas. The special-status wildlife species were the little willow flycatcher (*Empidonax trailli brewsteri*), bank swallow (*Riparia riparia*), and Swainson's hawk (*Buteo swainsoni*). The special-status plant species was the rose mallow (*Hibiscus lasiocarpus*). In addition, from Jones & Stokes Associates file information, seven other special-status wildlife species were identified as having potential to occur: the valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*), northern harrier (*Circus cyaneus*), white-tailed kite (*Elanus caeruleus*), California yellow warbler (*Dendroica petechia brewsteri*), northwestern pond turtle (*Clemmys marmorata marmorata*), giant garter snake (*Thamnophis gigas*), and ringtail (*Bassariscus astutus*).

Descriptions of the status, distribution, and habitat for the special-status plant and wildlife species listed above are presented in Tables 1 and 2.

Field Surveys

Drilling Entry and Exit Sites

The plant community encountered at the proposed drilling entry and exit sites includes agricultural fields. The fields were recently tilled and appeared to have been planted previously in row crops. Common wildlife species found at or on the margin of the sites are house finch, American crow, Brewer's blackbird, and pocket gopher. Scientific names for the common species mentioned in the text are provided in Table 3.

Table 1. Special-Status Plant Species with the Potential to Occur on the Stafford Pipeline Project Sites

Species	Status*		California Distribution	Habitats
	Federal/CNPS			
Rose mallow <i>Hibiscus lasiocarpus</i>	--/2		Central Valley from Butte to San Joaquin County and adjacent Sacramento-San Joaquin River Delta areas	Riparian habitats with freshwater marsh vegetation in areas with slow water velocities, such as canals, sloughs, ponds, and oxbows

* Status explanations:

Federal

-- = no status definition

CNPS

2 = List 2 species: rare, threatened, or endangered in California but more common elsewhere.

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Table 2. Special-Status Wildlife Species with the Potential to Occur on the Stafford Pipeline Project Sites

Species	Status ^a		California Distribution	Habitats	Reason for Decline or Concern
	Federal/State				
Valley elderberry longhorn beetle <i>Desmocerus californicus dimorphus</i>	T/--		Streamside habitats below 3,000 feet through the Central Valley of California	Riparian and oak savanna habitats with elderberry shrubs; elderberries are host shrubs	Loss and fragmentation of riparian habitats
Northwestern pond turtle <i>Clemmys marmorata marmorata</i>	--/SSC		In California, range extends from Oregon border of Del Norte and Siskiyou Counties south along coast to San Francisco Bay, inland through Sacramento Valley, and on the western slope of Sierra Nevada; range overlaps with that of southwestern pond turtle through the Delta and Central Valley to Tulare County	Woodlands, grasslands, and open forests; occupies ponds, marshes, rivers, streams, and irrigation canals with muddy or rocky bottoms and with watercress, cattails, water lilies, or other aquatic vegetation	Loss and alteration of aquatic and wetland habitats, habitat fragmentation
Giant garter snake <i>Thamnophis gigas</i>	T/T		Central Valley from Fresno north to the Gridley/Sutter Buttes area; has been extirpated from areas south of Fresno	Sloughs, canals, and other small waterways where there is a prey base of small fish and amphibians; requires grassy banks and emergent vegetation for basking and areas of high ground protected from flooding during winter	Loss of habitat from agriculture and urban development
White-tailed kite <i>Elanus caeruleus</i>	--/FP		Lowland areas west of Sierra Nevada from head of Sacramento Valley south, including coastal valleys and foothills to western San Diego County at the Mexico border	Low foothills or valley areas with valley or live oaks, riparian areas, and marshlands near open grasslands for foraging	Loss of grassland and wetland habitats to agriculture and urban development
Cyanocephalus <i>Circus cyaneus</i>	--/SSC		Throughout lowland California; has been recorded in fall at high elevations	Grasslands, meadows, marshes, and seasonal and agricultural wetlands providing tall cover	Loss of habitat to agricultural and urban development
Swainson's hawk <i>Buteo swainsoni</i>	--/T		Lower Sacramento and San Joaquin Valleys, the Klamath Basin, and Butte Valley; the state's highest nesting densities occur near Davis and Woodland, Yolo County	Nests in oaks or cottonwoods in or near riparian habitats; forages in grasslands, irrigated pastures, and grain fields	Loss of riparian, agriculture, and grassland habitats; vulnerable to human disturbance at nest sites
Little willow flycatcher <i>Empidonax traillii brewsteri</i>	--/E		Summer range includes a narrow strip along the eastern Sierra Nevada from Shasta County to Kern County, another strip along the western Sierra Nevada from El Dorado County to Madera County; widespread in migration	Riparian areas and large, wet meadows with abundant willows for breeding; usually found in riparian habitats during migration	Loss of riparian breeding habitat, nest parasitism by brown-headed cowbirds

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Table 2. Continued

Species	Status ^a		California Distribution	Habitats	Reason for Decline or Concern
	Federal/State				
Bank swallow <i>Riparia riparia</i>	--/T		The state's largest remaining breeding populations are along the Sacramento River from Tehama County to Sacramento County and along the Feather and lower American Rivers, in the Owens Valley; nesting areas also include the plains east of the Cascade Range south through Lassen County, northern Siskiyou County, and small populations near the coast from San Francisco County to Monterey County	Nests in bluffs or banks, usually adjacent to water, where the soil consists of sand or sandy loam to allow digging	Loss of natural earthen banks to bank protection and flood control, erosion control related to stream regulation by dams
California yellow warbler <i>Dendroica petechia brewsteri</i>	--/SSC		Nests over all of California except the Central Valley, the Mojave Desert region, and high altitudes in the Sierra Nevada; winters along the Colorado River and in parts of Imperial and Riverside Counties; two small permanent populations in San Diego and Santa Barbara Counties	Nests in riparian areas dominated by willows, cottonwoods, sycamores, or alders or in mature chaparral; may also use oaks, conifers, and urban areas near streamcourses	Loss of riparian breeding habitats, nest parasitism by brown-headed cowbirds

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^a Status explanations:

Federal

- listed as threatened under the federal Endangered Species Act.
- No status definition.
- listed as threatened under the California Endangered Species Act.
- listed as endangered under the California Endangered Species Act.
- fully protected under the California Fish and Game Code.
- species of special concern in California.
- No status definition.

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Table 3. Wildlife Species Mentioned in the Text

Common Name	Scientific Name
Valley elderberry longhorn beetle	<i>Desmocerus californicus dimorphus</i>
Northwestern pond turtle	<i>Clemmys marmorata marmorata</i>
Giant garter snake	<i>Thamnophis gigas</i>
White-tailed kite	<i>Elanus caeruleus</i>
Northern harrier	<i>Circus cyaneus</i>
Swainson's hawk	<i>Buteo swainsoni</i>
Little willow flycatcher	<i>Empidonax trailli brewsteri</i>
American crow	<i>Corvus brachyrhynchos</i>
Bank swallow	<i>Riparia riparia</i>
California yellow warbler	<i>Dendroica petechia brewsteri</i>
Brewer's blackbird	<i>Euphagus cyanocephalus</i>
House finch	<i>Carpodacus mexicanus</i>
Pocket gopher	<i>Thomomys</i> spp.
Ringtail	<i>Bassariscus astutus</i>

Special-Status Species

No special-status plant or wildlife species were found during the May field visit. In addition, no wetland resources occur on the project site.

ENVIRONMENTAL IMPACTS

Criteria for Determining Impact Significance

Impacts on biological resources are considered significant if they would result in:

- direct mortality or the permanent loss of existing or potential habitat for species that are federally or state listed or proposed for listing as threatened or endangered;
- loss or disturbance of substantial portions of local populations of federal candidate species, California Native Plant Society list 1B,2, 3 or 4 plant species; California state species of special concern, or game species;
- adverse effects on a substantial portion of a vegetation type (including sensitive natural communities) in a local region;
- temporary loss of habitat that may result in increased mortality or lowered reproductive success of special-status wildlife species; or
- avoidance by wildlife of biologically important habitat for substantial periods at the risk of increased mortality or lower reproductive success.

Impacts of the Proposed Project

Drilling Entry and Exit Sites

Implementation of the proposed project would result in the temporary disturbance (2-3 days) of the agricultural field and common wildlife at the drilling entry and exit sites. This impact is considered less than significant because the area is small and already highly disturbed, the disturbance would be short term, and common wildlife species found there are locally and regionally abundant.

Special-Status Plant Species

Drilling Entry and Exit Sites

The project site lacks suitable habitat for rose mallow, so no adverse effects on this special-status plant species would occur from the proposed project.

Special-Status Wildlife Species

Implementation of the proposed project site would not result in adverse environmental impacts on special-status wildlife species. The reasons for this conclusion are discussed for each species below.

Willow Flycatcher

Willow flycatchers would not be affected by the proposed project because suitable habitat for them is not present at the site. The NDDDB records sightings of the willow flycatcher in a riparian forest in the area in 1974. These detections were likely individuals migrating to their breeding site.

Bank Swallow

Bank swallows have not been recorded near the project site since 1986, and none were sighted during the field survey. No impacts on bank swallows would occur from the proposed project.

Valley Elderberry Longhorn Beetle

No impacts would occur on the valley elderberry longhorn beetle because elderberry shrubs, the species' required habitat, were not found during field surveys at the proposed project sites.

White-Tailed Kite and Northern Harrier

Temporary disturbance of foraging habitat for the white-tailed kite and northern harrier would occur during drilling. This impact is considered less than significant because the proposed project sites provide low-quality foraging habitat for these species, disturbance would be temporary (2-3 days), and high-quality foraging habitat is abundant in the project vicinity. No mitigation is required.

Swainson's Hawk (Nesting)

Swainson's hawks have not been reported nesting near the project vicinity (within ½ mile) since 1990, and none were observed during the field visit. No impacts on nesting Swainson's hawks would occur from the proposed project.

Swainson's Hawk (Foraging)

Suitable Swainson's hawk foraging habitat includes alfalfa, fallow fields, low-growing row crops, irrigated pasture, and grain crops (California Department of Fish and Game 1994). No impacts on foraging Swainson's hawks would occur because the affected area is small (less than 1 acre), construction activities are temporary (approximately 3-5 days), and after drilling is complete, the affected area will still provide suitable fallow field foraging habitat. No mitigation is required.

Giant Garter Snake, Northwestern Pond Turtle, Yellow Warbler, and Ringtail

No impacts on the giant garter snake, northwestern pond turtle, yellow warbler, and ringtail would occur because their required habitat is not present at the proposed project sites.

CITATIONS

California. Department of Fish and Game. 1994. Staff report regarding mitigation for impacts to Swainson's hawks (*Buteo swainsoni*) in the Central Valley of California. Sacramento, CA.

Natural Diversity Data Base. 1995. Records search for the Tisdale Weir 7.5-minute quadrangle. California Department of Fish and Game. Sacramento, CA.

**Appendix B. Cultural Resources Inventory Report for the
Stafford Pipeline Extension Sacramento River
Crossing**

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PROJECT DESCRIPTION

Slawson Exploration Company, Inc. (Slawson) has contracted with Jones & Stokes Associates to conduct a cultural resources inventory for the Stafford pipeline Sacramento River crossing (Stafford pipeline) project in Sutter and Colusa Counties, California (Figure 1). The project involves installing steel pipeline under the Sacramento River using directional drilling technology. The western side of the Sacramento River (Colusa County) will be the entry point for the bore; the east side (Sutter County) will be the exit point. Both the entry and exit points are located in agricultural fields. This report documents the results of the cultural resources inventory, conducted in compliance with the California Environmental Quality Act (CEQA), for the Stafford pipeline project.

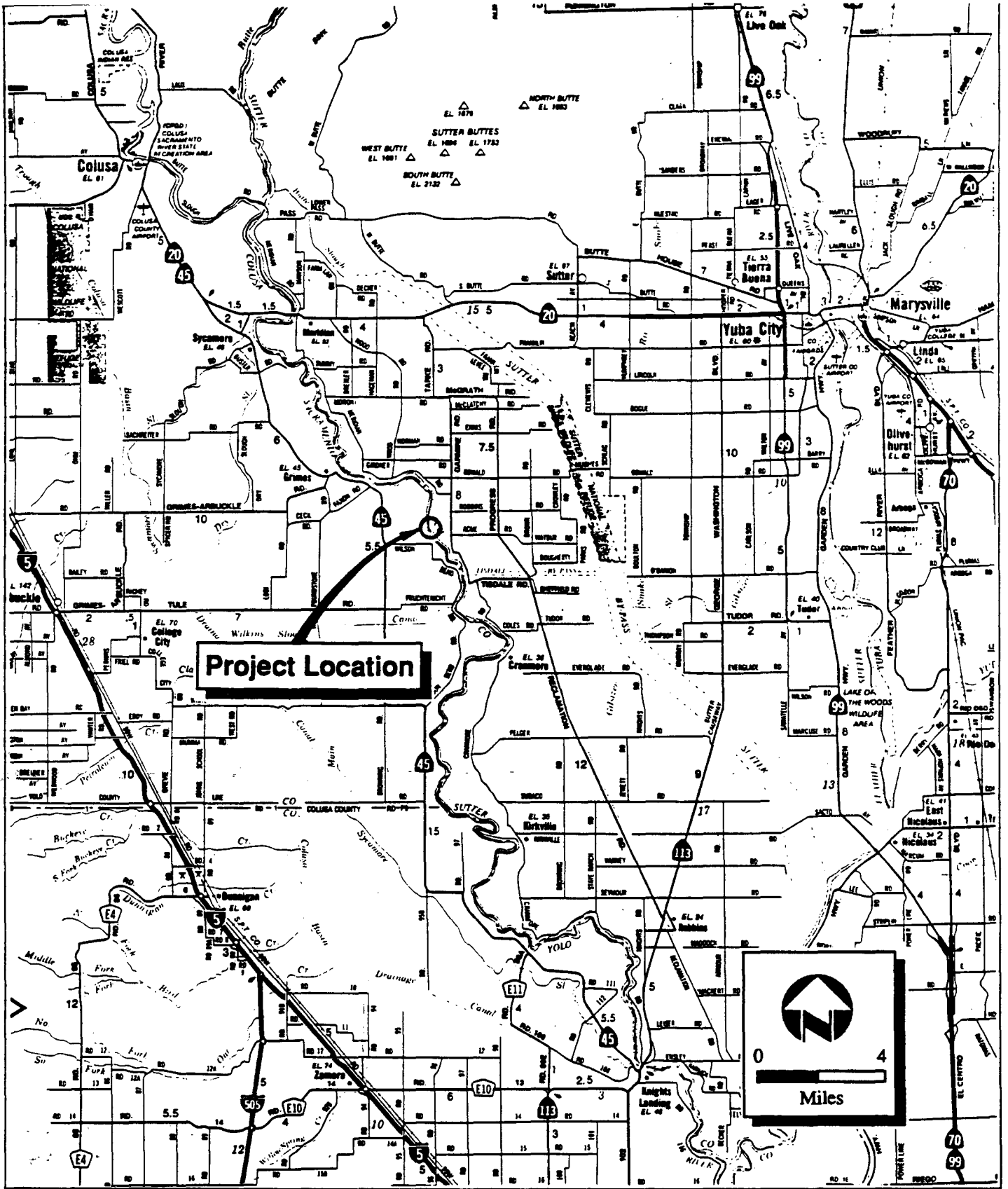
SETTING

Prehistoric Context

Although human occupation of the northern Sacramento Valley may extend back 10,000 years or more, reliable evidence of the presence of these early inhabitants is lacking. Evidence of human use of the valley at this early period may be deeply buried under alluvium (Moratto 1984).

More reliable evidence exists for early substantial occupation of the northern Sacramento Valley after 8000 years before present (B.P.) (Johnson et al. 1984). The Lower Archaic Period (8000-5000 B.P.), locally represented by the Borax Lake Pattern, consists largely of wide-stemmed projectile points, manos, and metates. The subsequent Middle Archaic Period (5000-2500 B.P.), identified locally as the Late Borax Lake Pattern, is associated with an increase in the types of projectile points, the use of the atlatl, continued use of manos and metates, and the use of bowl mortars.

The Upper Archaic Period (2500-1500 B.P.) reflects a shift to the use of the mortar and pestle, which replaced the mano and metate. This may indicate an increased reliance on acorns as a food staple (Johnson et al. 1984). The Emergent Period (1000 B.P. to the historic period) is identified locally as the Shasta Aspect of the Augustine Pattern and is represented by settlements near streams, semisubterranean dwellings, a subsistence economy based on hunting and gathering, and numerous artifact types. This last period is thought to represent an intrusion of peoples and influence from the north (Moratto 1984).



Jones & Stokes Associates, Inc.

Figure 1
Project Location

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Ethnography

The project area was once inhabited by people referred to as Patwin. This term does not denote a political entity, but a linguistic and cultural continuity. The Patwin are Wintuan speakers of the Penutian language family. They lived in an area that, in the northern reaches, included the present-day town of Princeton (northwest of the Sutter Buttes) and Little Sutter Creek. To the east, Patwin territory ran along the eastern side of the Sacramento River to its confluence with the Feather River, then along the Sacramento River's western side to Suisun Bay. The western boundary ran from the easternmost edge of San Pablo Bay north along the Napa River up to Bartlett Creek, north of Clear Lake. The Patwin's northern neighbors were the Yuki, Nomlaki, and Konkow; their eastern neighbors were the Nisenan; and the Miwok shared their eastern and southern borders. West of the Patwin lived the Coast Miwok, the Wappo, the Pomo, and the Lake Miwok. (Johnson 1978.)

The Patwin obtained food by gathering and hunting, with each season bringing different food items for their sustenance. As other California native groups, the Patwin relied on the acorn as a primary staple. They also collected pine nuts, manzanita berries, blackberries, and wild grapes, as well as various bulbs. The Patwin also hunted large animals, such as tule elk, deer, and antelope, as well as smaller animals, such as ducks, geese, quail, and turtles. They used fishing nets and weirs to catch salmon, sturgeon, perch, pike, trout, and other fish. (Johnson 1978.)

The largest political unit of the Patwin was the tribelet, which consisted of one primary and several outlying villages. Each tribelet maintained a sense of territory and autonomy, and each village had a leader, a position usually passed on from father to son, who directed the activities of the village. The position of leader, or chief, was the highest rank attainable. (Johnson 1978.)

Three missions--Mission Dolores, Mission San José, and Mission Sonoma--were established between 1776 and 1823 near Patwin lands. As early as 1800, Patwin were taken from their villages to become neophytes at these missions. During the 1830s and 1840s, most of the land inhabited by the Patwin was taken over by Mexicans and Americans who secured title to large grants of land and claimed its resources. During the 1850s and 1860s, Patwin who had survived earlier epidemics and conflicts became lost in Euro-American culture, serving as laborers or house servants, or they were placed on reservations. (Johnson 1978.)

HISTORIC CONTEXT

In 1808, Gabriel Moraga led his third expedition into the Central Valley and up the Sacramento River to present-day Butte City (Kyle 1990). From 1827 to 1848, English and American fur trapping parties searched for beaver up and down the Central Valley. These trappers included men such as Jedediah Smith, Peter Ogden, and John Work.

During the 1840s, many settlers applied and received large land grants from the Mexican government. A decade later, the discovery of gold in the Sierra Nevada foothills and along the

Trinity River near Redding triggered a major influx of immigrants to the region. Towns were established along the Sacramento River, which served as a major thoroughfare for incoming immigrants and supply wagons. In the 1870s, the railroad system was well established in California and managed to dominate transportation. As a result, areas such as Sacramento developed into major agricultural lands. (Johnson and Johnson 1974, Beck and Haase 1974.)

METHODS

Prefield Research

A cultural resources records search of the project area was completed at the Northeast Information Center in Chico, California, for the project area portion in Sutter County, and at the Northwest Information Center in Sacramento, California, for the portion in Colusa County. The records searches included previously identified cultural resources and previous investigations in the project area, as well as those within a 1-mile radius. The searches revealed that no previous surveys had been conducted and no cultural resources had been located within the project area.

Field Survey

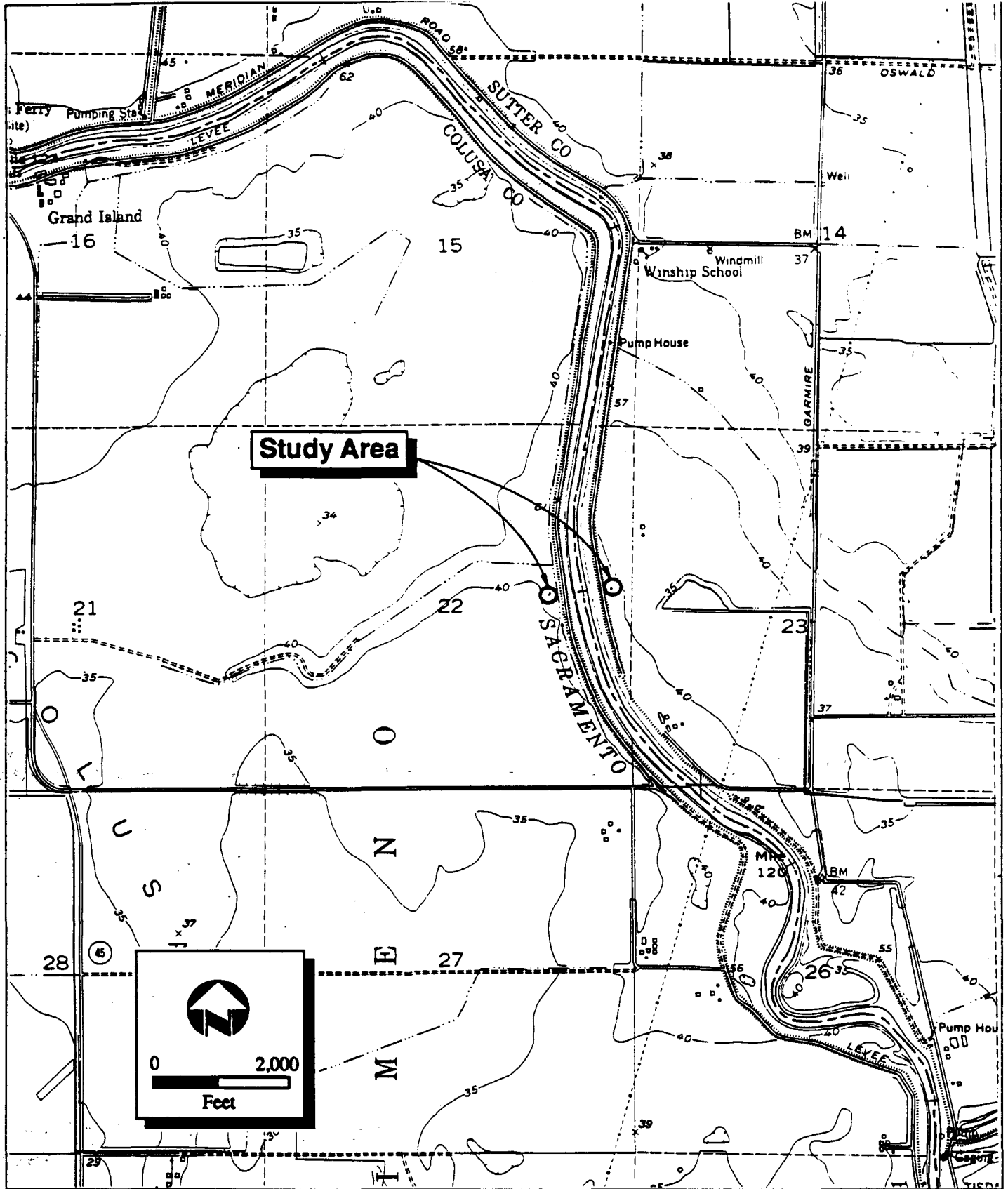
On May 15, 1996, a field survey of the study area was conducted by a cultural resource staff member of Jones & Stokes Associates. Intensive coverage strategy was used to survey the study area, in transects no wider than 15 meters apart (Figure 2). The entire study area was surveyed in this manner.

RESULTS

No cultural resources were located as a result of the field survey conducted by Jones & Stokes Associates.

Impacts and Recommendations

No cultural resources were located in the study area; therefore, no impacts on cultural resources are anticipated. However, cultural resources not identified during the field survey could be unearthed during project activities, which could result in their destruction or damage. If cultural materials are located during project activities, work should be halted so that their significance can be determined by a qualified archaeologist.



Base map: USGS Tisdale Weir, California 1952, photorevised 1973.

 Jones & Stokes Associates, Inc.

Figure 2
Study Area

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CITATIONS

- Beck, W. A., and Y. D. Haase. 1974. Historical atlas of California. University of Oklahoma Press. Norman, OK.
- Johnson, J. J., and P. Johnson. 1974. Cultural resources along the Sacramento River from Keswick dam to Sacramento. The Foundation of California State University, Sacramento. Sacramento, CA. Prepared for the U.S. Army Corps of Engineers (Contract #DACW05-74-P-1562), Sacramento, CA.
- Johnson, J. J., D. J. Theodoratus, C. M. Blount, and S. D. Dondero. 1984. Black Butte Lake intensive cultural resources survey. The Foundation of California State University, Sacramento. Sacramento, CA. Prepared for the U.S. Army Corps of Engineers, Sacramento, CA.
- Johnson, P. J. 1978. Patwin. Pages 350-360 in R. F. Heizer (ed.), Handbook of North American Indians. Volume 8: California. Smithsonian Institution. Washington DC.
- Kyle, D. E. 1990. Historic spots in California. 4th edition. Stanford University Press. Stanford, CA.
- Moratto, M. J. 1984. California archaeology. Academic Press, Inc. San Francisco, CA.

Appendix C. Contingency Plans

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SLAWSON EXPLORATION COMPANY, INC.

Subsurface Rupture Contingency Plan for a Directionally Drilled River Crossing

The directionally drilled river crossing procedure includes a very accurate monitoring and control system to track the progress and exact location of the drilling head at all times. Fine horizontal and vertical adjustments are made throughout the procedure to assure that the drilling profile matches the planned profile. Drilling mud (Bentonite slurry) is used during the advancement of the drill string to erode the formation and aid in stabilizing the pilot hole. The specific weight of the drilling mud is adjusted throughout the procedure to ensure hydrological stability. However, in the event a subsurface rupture should occur or that seepage of Bentonite slurry is noticed in the project area, operations will stop immediately and the following procedure will be implemented.

Containment and Control

Should seepage occur on the ground in the project area, on-site materials consisting of industrial grade PVC mesh with steel T-posts and natural straw bales will be installed around the seepage area to contain the fluid.

Should seepage occur beneath the waterway, on-site materials consisting of industrial grade PVC mesh with steel T-posts and natural straw bales will be installed above and below the crossing site where the depth of the waterway allows.

Note: Bentonite is a naturally occurring substance that would eventually be physically and biologically degraded without intervention.

After this entire procedure is implemented, any Bentonite seepage that has occurred will be removed using a vacuum truck and then transported to a disposal site as approved by the California Division of Oil and Gas.

Notification Procedures - The following agencies will be notified immediately in the event this contingency plan is implemented:

1. California State Lands Commission
Mr. Kirk Walker
916-574-1822
2. State Department of Fish and Game
Environmental Services
916-358-2929

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3. The Reclamation Board
Mr. Donald L. Jackson
916-663-5434

Evaluation Plan - After the above action has been taken, Slawson Exploration Company, Inc. management and the contract drilling engineer will evaluate the feasibility of continuing the boring procedure or implementing the Abandonment Contingency Plan (ACP) after evaluating the following:

The exact location of the drilling head assembly will be verified with portable locating equipment. If it is determined that the drilling profile does not match the planned profile, and exceeds design limits, the ACP will be implemented.

If the location and profile are within design limits, the specific weight of the drilling mud will be verified to ensure a slightly overbalanced condition to the surrounding formation. The specific weight will be adjusted if necessary.

If location, profile, and drilling mud weight are determined to be within design limits, and seepage of Bentonite slurry is controlled, the contract drilling engineer may proceed.

Should it be determined that the stability of the bored crossing is in serious question, even if location, profile, and drilling mud weight are deemed satisfactory, the ACP will be implemented.

STAFFORD PIPELINE EXTENSION
SACRAMENTO RIVER
DIRECTIONALLY DRILLED RIVER CROSSING
ABANDONMENT CONTINGENCY PLAN

The following general plan would be executed if for any reason the drilling operation were forced to be suspended and the partially completed drilled hole abandoned.

During Pilot Hole Drilling

If drilling were to be suspended during pilot hole drilling the following general procedure would be executed.

1. Advancement of the drill string would be halted.
2. Cement or Bentonite mixing and pumping equipment would be mobilized to the drilling location.
3. Cement or Bentonite pumping equipment would be rigged up to the drill string.
4. Drill string would be withdrawn, with pumped cement or Bentonite filling void and displacing the Bentonite slurry material.

During Reaming

If drilling were to be suspended during the reaming of the hole, the following general procedure would be executed.

1. Pull back of the reaming string would be halted.
2. Cement or Bentonite mixing and pumping equipment would be mobilized to the drilling location.
3. Cement or Bentonite pumping equipment would be rigged up to the drill string.
4. If possible the reamer would be pushed back to the exit end and:
 - A. The reamer would be replaced with a cementing head.
 - B. Drill string would be withdrawn with pumped cement or Bentonite filling void and displacing the Bentonite slurry material.

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5. If reamer could not be pushed back to exit end, then:
- A. Drill string would be withdrawn with pumped cement or Bentonite filling void and displacing the Bentonite slurry material.
 - B. Drilling rig would rig down at entry end and rig up at exit end.
 - C. Run in pilot hole with cement head on pilot hole drill string until previously cemented reamed hole is bumped.
 - D. Drill string would be withdrawn with pumped cement or Bentonite filling void and displacing the Bentonite slurry material.

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SLAWSON EXPLORATION COMPANY, INC..
OPERATION, MAINTENANCE AND EMERGENCY RESPONSE PLAN
FOR SLAWSON EXPLORATION COMPANY, INC.
PIPELINE IN
SUTTER AND COLUSA COUNTIES, CALIFORNIA

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OVERVIEW

Contained herein are the various plans for the SLAWSON EXPLORATION COMPANY, INC. pipeline in Sutter and Colusa Counties, California. These plans are intended only as a guide to the safe operation of the pipelines and are not intended to cover every emergency or condition. The pipeline is to be operated in accordance with the specific requirements of California Public Utilities Commission General Order 112-D and The United States Department Of Energy Title 49 Part 142 as these regulations may apply. Additionally, specific requirements regarding notification of the Sutter and/or Colusa County Department Of Environmental Management or other relevant county agency, The California State Lands Commission and The California State Reclamation Board may be required in the case of any repair to the pipeline.

OPERATIONS

A. Daily - The operations Contractor shall visit the pipeline terminal facility daily. Pipeline operating criteria including pressure and flow rate to be recorded.

Weekly - The entire route of the pipeline to be inspected by vehicle. Any unusual conditions to be reported immediately.

Quarterly - The entire route of the pipeline to be inspected by walking. Any unusual conditions to be reported immediately.

Additionally, the preventative maintenance testing on the cathodic protection system will be performed every three months. A technician will measure each sampling point to insure the integrity of the cathodic protection system.

Semi-Annually - A leak survey, using a calibrated sniffer, will be performed every six months in conjunction with the cathodic testing.

Annually - All relief valves to be re-calibrated.

B. PIPELINE REPAIRS

If the pipeline repairs are being performed by an outside company, an employee of the Operations Contractor familiar with such repairs will be assigned the responsibility of assuring that repairs are made properly and safely.

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When repairs to the line are to be made, the Operations Contractor must comply with the local State/County rules. These include but are not limited to the following:

1) NOTIFICATION

The Operations Contractor is responsible for notifying and obtaining the permission of the State/County authorities prior to the start of any maintenance.

2) TRAFFIC CONTROL

A minimum of one 11 foot traveled way shall be maintained in each direction on public streets at all times. If it is necessary to reduce the traveled way to less than two 11 foot lanes, flagmen shall be required.

SLAWSON EXPLORATION COMPANY, INC. will also construct signs, lights, barriers fences, and detours as necessary to give adequate warning to the public that work is in progress and that dangerous conditions exist. Special emphasis will be placed on the requirement of fences to protect the public from any hazards.

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GAS PIPELINE EMERGENCY RESPONSE PLAN

PREFACE

The following is an EMERGENCY RESPONSE PLAN for the 6 inch Natural Gas Pipeline in Sutter and Colusa Counties. The plan provides emergency personnel to be contacted and an emergency procedure.

The purpose of the following plan is to establish a predetermined mode of operation in an emergency, which includes: (1) a system of notifications, (2) delegation of responsibilities and authority for different activities, and (3) a chain of communications, properly established so that all areas of concern are continually informed. The word "emergency", as used, includes leaks, spills, fires, explosion, natural disasters, etc. The entire system is to be treated as an area requiring immediate response to prevent hazards to the public.

The basic responsibility for implementing the emergency plan rests with the Operations Contractor. He must ensure that the personnel react as instructed, that equipment and personnel are available and adequate, and that reliable communications and documentation are established.

A. NOTIFICATION OF EMERGENCY:

The authorities and the general public should notify SLAWSON EXPLORATION COMPANY, INC. of problems by contacting:

AA Production Services, Inc.
(24 hours)..(916) 982-0123

1. By Outside Source:

The employee receiving notification from an outside party is to obtain as much pertinent data as possible and the information to complete Appendix I, "Initial Leak Report," which includes:

a. Leak Report by:

Obtain the name of the person who is reporting the emergency. The caller's address and telephone number should also be requested. Record the time and date of the reporting.

b. Time and Date Emergency Discovered:

Ask and record the time and date the party discovered the emergency.

c. Location of Emergency:

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It is very important to obtain a precise location to aid the isolation of the emergency. The site's relationship to highways, streets, roads, railroads, houses, buildings, etc., is significant and will assist in determining required notifications.

d. **Type of Emergency:**

Ask the caller whether there was an explosion or if fire exists. If there is no fire, question whether hazardous conditions exists, such as product near railroad tracks, businesses, homes, roads, or possible ignition source.

e. **Emergency Agencies:**

Inquire if anyone has been injured and if any emergency agencies (fire department, police, ambulance, etc.) were at the site or had been notified.

2. **By Company or Contractor Personnel:**

Company or Contractor personnel discovering an emergency must take appropriate action to limit hazards to the public and property and to contain and prevent the discharge of additional product. If the emergency is accompanied by fire or explosion, with resultant injuries, first aid is to be rendered and emergency assistance secured. Appendix 4., "First Personnel at Leak Site Action," provides a form for recording the necessary data.

B. COMPANY/CONTRACTOR RESPONSE TO AN EMERGENCY:

When the information as required on Initial Leak Report, Appendix 1, has been obtained from the reporter or an employee discovering an emergency, the required emergency actions must be taken. This includes promptly dispatching personnel to identify the exact location and to close the appropriate valves to isolate the problem.

Simultaneously, Company/Contractor will notify local police and fire departments it has received information that may constitute an emergency.

If it is determined that an emergency exists, Company/Contractor will have already closed the necessary valves to stop gas flowing to the problem area.

SLAWSON EXPLORATION COMPANY, INC. will make an assessment, along with local emergency authorities, to minimize the effects of the emergency and to correct the problem.

Company Notifications of Emergency

When the information has been received and the appropriate responses made then the notifications as indicated in Appendix 2., "Notification," are to be made.

C. GOVERNMENT AGENCY NOTIFICATIONS:

Area Manager or his appointee will determine the direct notifications of government agencies and other company departments deemed necessary by the circumstances of the emergency.

D. PRODUCT MOVEMENT ACTIONS:

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1. Evaluation and Line Shutdown:

The Company/Contractor Supervisor must evaluate from information supplied from the field or outside parties whether the reported leak is or could be our pipeline. Appendix 3., "Company/Contractors Actions," provides a form with the pertinent information needed for recording by the Company/Contractor Supervisor.

2. Closing Block Valves:

After the line has been shut down, the Company/Contractor Supervisor, in cooperation with field forces, will direct the closing of certain block valves determined by the individual circumstances (leak location known or unknown) and at times request pressure monitoring until the leak has been isolated. When the leak has been isolated, the field forces will take charge of leak repair direction. A record should be made of all valves closures.

3. Opening Block Valves:

When field forces have determined that temporary or permanent repairs have been completed, the Company/Contractor Supervisor, in cooperation with field forces, will direct the opening of the block valves as required to perform pressure test and for resuming line operations. Field personnel are to remain at the leak site and report status of repaired facilities to the Company/Contractor Supervisor during the pressure test and initial operations.

4. Final Notifications:

When the line has returned to normal operation, the Company/Contractor Supervisor is to advise the Area Manager.

5. Follow-up:

When a final product loss figure is available, the Area Manager is to be notified indicating the estimated product loss and the estimated time to repack the line.

E. EMERGENCY SITE:

1. First Employee at Site:

a. Hazardous Conditions:

The first employee to arrive at the emergency site must evaluate the situation and determine if any hazards or potential hazards to people or property exist. If the emergency is accompanied by injuries, first aid is to be rendered and emergency assistance secured.

b. Limit Hazards:

Although a great deal of judgment must be exercised, appropriate action must be taken to limit hazards to the public and property and to contain and prevent the discharge of additional product if possible.

c. Notifications:

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After the required emergency actions and notifications as described in Appendix 2., "Notifications," have been taken, details of the conditions at the site including information indicated in Appendix 4., "First Company Personnel at Leak Actions," are to be relayed to the Area Manager.

F. COMPANY/CONTRACTOR SUPERVISOR RESPONSIBILITIES:

1. Emergency Plan:

SLAWSON EXPLORATION COMPANY, INC. will maintain an emergency plan within the county to initiate actions immediately on report of an emergency and ensure that company personnel are acquainted and trained to execute the emergency actions. Personnel shall be informed concerning the characteristics of natural gas in the system and the safe practices in the handling of accidental discharge and repair of facilities. Each emergency will require individual evaluation by the Company/Contractor Supervisor depending on availability of personnel, emergency location, if it involves a fire or explosion, whether it is in or near water, sewer or drainage system. The plan must always have personnel assigned to initiate and be responsible for the following.

a. Company/Contractor Supervisor in Charge at Site:

A person is to be selected to charge and coordinate all phases of the actions required for the emergency.

(1) Company/Contractor Maintenance and Repair:

The company/contractor representative in charge is to be notified if and when company maintenance and repair equipment and personnel will arrive at the emergency site. The representative in charge must determine the need and arrange for outside services and equipment (back hoe, bulldozer, vacuum trucks, dump trucks, barricades, contract personnel, pipeline contractors, etc.) depending on the requirements of the emergency. Appendix 5., "Outside Contractor," indicates the outside contractors and equipment companies available for emergencies and their telephone numbers. The Company/Contractor Supervisor will make necessary plans to proceed to leak site with necessary equipment. The Supervisor is to complete Appendix 6., "Leak Site Report," indicating information required as it happens.

(2) Communications and Documentation:

A Company/contractor employee is to be assigned to remain in the near vicinity with a mobile radio to provide a communications link to and from the emergency site. This person should also be assigned the responsibility of all documentation, including times and record of emergency agencies arrival and departure, roads blockaded and opened, evacuation of housing or businesses, valve closing and opening, emergency repairs made, equipment available, and any other pertinent facts that may arise.

(3) Safety:

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A company/contractor employee is to be assigned the responsibility of safety at the emergency site. His duties would include installation of No Smoking signs in hazardous areas, barricading danger areas, routing people and vehicles as required, determining by use of explosimeter if hazardous conditions exist, ensuring that sufficient fire-fighting equipment is available and located in proper positions. Appendix 7., "Safety Coordinator," indicates a check list to be used by the person assigned. This person would be directed by the representative in charge.

(4) Public Relations:

Unless a company public representative is available, someone with appropriate knowledge and authority is to be assigned the responsibility of responding to the news media, if present, answering questions or complaints from outside parties, dealing with emergency agencies, etc. In addition, someone should be assigned the duties of taking photos of the site in relations to markers, streets, roads, highways, railroad, dwellings, businesses, product confines, damage caused, etc. The Area Manager is to approve any statement concerning the emergency prior to its being released.

(5) Pipeline Repairs:

If the pipeline repairs are being performed by an outside company, a Company/Contractor Supervisor familiar with such repairs will be assigned the responsibility of assuring that repairs are made properly and safely.

To facilitate repairs, the gas pressure will have to be relieved from the pipeline. This will be accomplished at the plant mixing station through the blow off valve. The venting procedure, shall be done in such a manner to limit as far as practical, release of natural gas to the atmosphere.

When repairs to the line are to be made, the Company/Contractor Supervisor must comply with the local County rules. These include but are not limited to the following:

(a) Traffic Control

A minimum of one 11 foot traveled way shall be maintained in each direction on public streets at all times. If it is necessary to reduce the traveled way to less than two-11 foot lanes, flagmen shall be required. SLAWSON EXPLORATION COMPANY, INC. will also construct signs, lights, barriers fences, and detours as necessary to give adequate warning to the public that work is in progress and that dangerous conditions exist. Special emphasis will be placed on the requirement of fences to protect the public from any hazards.

- (b) Repair of existing improvements and services

SLAWSON EXPLORATION COMPANY, INC. will repair all existing improvements and services that were damaged by the emergency or the repairs.

2. Notifications:

a. Emergency Agencies:

The Company/Contractor Supervisor should direct notifications of any agency required for emergency field activities for the public safety. This notification procedure will include the

Sutter County Office Of Emergency Services.	(916)741-7370
Colusa County Office Of Emergency Services	(916)458-0350
California Office Of Emergency Services	(800)852-7550
State Lands Commission	(310)590-5201

b. SLAWSON EXPLORATION COMPANY, INC. - Area Manager:

(1) Immediate:

The Company/Contractor Supervisor is to notify the Area Manager of the report of a leak or suspected leak and any facts known at the time and discuss actions presently being taken and those anticipated based on the initial report.

(2) When Emergency is Located:

After the initial report from the emergency site, the Area Manager is to be notified and informed of existing conditions. From these conditions a determination will be made by the Area Manager of what agencies, government or local (sanitation, water or irrigation companies, city, government, health departments, Captain of Port, claims agents, public relations) that require immediate notification. The Company/Contractor Supervisor preliminary emergency plan actions for this incident are to be reviewed with the Area Manager, including estimates of anticipated timing of various activities.

(3) Periodic Progress Report:

Reasonably frequent progress reports should be made to appropriate management personnel. As a guideline, these should be approximately every two hours unless advised otherwise.

G. EMERGENCY REPORTS:

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Copies of reports made during emergency are to be submitted to the Area Manager for review and determination of effectiveness of the procedures.

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APPENDIX A - RETAINED CONTRACTORS

SLAWSON EXPLORATION COMPANY, INC. has agreements with the following local contractors capable of responding to the emergencies in a timely manner immediately. These are:

**AA PRODUCTION SERVICES, INC.
MERVIN CLARK CONSTRUCTION COMPANY**

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SLAWSON EXPLORATION COMPANY, INC.
STAFFORD PIPELINE EXTENSION
HAZARDOUS MATERIALS CONTINGENCY PLAN

CONSTRUCTION PHASE

The only known hazardous materials which will be on site during the construction phase will be fuels and lubricants in construction equipment. No fuels or lubricants will be stored on the construction location. The exposure to a fuel or lubricant spill will be limited to the actual tank capacity of the equipment.

In the event of a fuel or lubricant spill on the construction location the following plan is to be followed.

1. Primary Action At The spill location
 - A. Notification of the Project Supervisor.
 - B. Contain the spill by building earth dikes to surround the spill.
2. Secondary Action
 - A. For small quantity spill apply absorbent pads, which are carried in each supervisors vehicle with additional pads stored in the construction storage container on site. All absorbent pads to be disposed of in plastic bags and placed into container marked for proper disposal.
 - B. For larger quantity spills request the contracted hazardous waste removal contractor to mobilize to the site with a vacuum truck.
 - C. If any hazardous material reaches any waterway or ditch containing water, deploy absorbent booms which are stored at the construction container on site.
3. Final Clean-up
 - A. All contaminated soil or other contaminated materials to be removed and placed into plastic bags or other approved container and disposed of off site by the contracted hazardous waste contractor.
 - B. Perform any remedial backfill and grading to restore area of spill.
4. Notifications
 - A. Immediately notify on site contractor supervisor and owner representative.

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- B. Make all notifications to county and state agencies as appropriate and as required by the regulations of the Sutter County or Colusa County Department of Environmental Management or any other county agency with jurisdiction. A copy of this notification information is in the possession of the contractor site supervisor.

Sutter County Office Of Emergency Services	(916)741-7370
Colusa County Office Of Emergency Services	(916)458-0350
California Office Of Emergency Services	(800)852-7550
State Lands Commission	(310)590-5201

OPERATION PHASE

There will be no hazardous materials on the project location after the pipeline is placed into operation.

STAFFORD PIPELINE EXTENSION

SACRAMENTO RIVER CROSSING

CONSTRUCTION PLAN

The following is the basic construction sequence and plan for the directionally drilled river crossing of the Sacramento River on the Stafford Pipeline Extension project.

1. A comprehensive survey of the directional route of the pipeline will be conducted, and the exact entry and exit points will be shot using EDM (electronic Distance Measurement) equipment. Both horizontal and vertical control points will be established at the entry and exit points.
2. The following construction areas will be prepared:
 - A. Product Pipe String Make-Up Area.
 - B. Drilling Site Area
 - C. Receiving (Exit) Site Area.
3. The product pipe string (4 Inch ERW .237 Wall ASTM Grade X42 Coated Pipe) will be welded out, radiographically inspected, and hydro-tested to 150% of MAWP.
4. Drilling contractor will mobilize equipment to drilling site.
5. Steering tool and directional tool will be made up on a nonmetallic bottom hole assembly and the drilling of the pilot hole will be commenced. Directional adjustments in azimuth and inclination (horizontal and vertical control) will be made at approximately 15 foot intervals to assure that the drilling profile matches the planned profile. Drilling mud (Bentonite slurry) will be used during advancement to erode the formation and aid in stabilizing the pilot hole.
6. Upon completion of the pilot hole the steerable bottom hole assembly will be replaced with a reaming device slightly larger than the diameter of the product pipe (4.5 inches). The reamer will then be rotated and pulled back along the pilot hole profile toward the entry side. Bentonite slurry will be injected through the drill string to the reamer providing a carrier for the reamer cuttings and stabilizing the reamed hole. When the reamer reaches the entry side it will be pushed back through the hole to the exit side with Bentonite again injected to stabilize the hole.
7. The reamer assembly will then be replaced by a pulling swivel and circulating sub assembly. The product pipe will be made up to this assembly and the entire product string will be pulled into the hole. Bentonite slurry will be injected from the circulating sub to fill the annular space between the product pipe and the reamed wall of the hole.
8. Drilling contractor will rig down and move equipment from location. Conventional pipe tie-ins will be made with mainline construction, and entry and exit points back-filled.

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**Appendix D. Summary of Mitigation Measures
Incorporated into the Proposed Project**

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EXHIBIT D

Mitigation Monitoring Program for Pipeline Boring

1. Prior to start of construction, the State Lands Commission staff will review and approve all contingency plans for the project, to include the following:

Rupture Contingency Plan
Abandonment Contingency Plan
Hazardous Materials Contingency Plan

2. Contractor will notify State Lands Commission staff at least 24 hours in advance of start of directional bore.
3. Staff of the State Lands Commission may inspect the site during bore operations to ensure that the provisions of the Negative Declaration and Contingency Plans are properly carried out.
4. As noted in the Contingency Plans and Cultural Resources section, the staff of the State Lands Commission will be notified immediately of any upset condition on the project site.

Appendix E. Citations

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Citations

PRINTED REFERENCES

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PERSONAL COMMUNICATIONS

Farhar, John. Senior planner. Sutter County Community Services Department, Yuba City, CA. June 19, 1996 - telephone conversation.

Hindbaugh, Earline. Administrative secretary. Colusa County Planning and Building Department, Colusa, CA. June 19, 1996 - telephone conversation.