

MINUTE ITEM
This Calendar Item No. C70 was approved as
Minute Item No. 70 by the California State Lands
Commission by a vote of 3 to 0 at its
9/19/00 meeting.

**CALENDAR ITEM
C70**

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09/19/00

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PRC 8218

W 6005.81

A. Nitsche

**CONSIDER APPROVAL OF A NON-EXCLUSIVE GEOPHYSICAL
SURVEY PERMIT ON TIDE AND SUBMERGED LANDS
UNDER THE JURISDICTION OF THE
CALIFORNIA STATE LANDS COMMISSION**

APPLICANT:

Sheridan California Energy, Inc.
Attn.: Mr. Ron Touchon
1200 17th Street, Suite 770
Denver, CO 80202

AREA, LAND TYPE AND LOCATION:

The proposed geophysical survey will cover lands within the city of Rio Vista and upland areas to the west and south of the city of Rio Vista in the Montezuma Hills, the southern portion of the Yolo Bypass, and portions of Ryer, Grand, Ida, and Brannan Islands. State waterways within the proposed project area include the Sacramento River, Cache Slough, Steamboat Slough, Elkhorn Slough, and Tomato Slough, located in Sacramento and Solano Counties.

TERMS OF PROPOSED PERMIT:

Beginning October 1, 2000, through September 30, 2001.

PREREQUISITE CONDITIONS, FEES AND EXPENSES:

Required fees, expense deposit, and other security have been received.

PROPOSED SURVEY:

A three dimensional (3D) seismic survey of approximately 33 square miles is planned for fall of 2000 and covers State lands in the Rio Vista area (Sacramento and Solano Counties). The survey design is a rectangular grid consisting of receiver lines oriented east to west every 1,320 feet and containing groups of six geophones spread over a 220-foot interval. The receiver seismic cable is an approximately 3/8-inch diameter insulated cable and carries no

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detectable electrical current. The receiver line cables will be weighted down to the bottom of all waterways. Placement of the receiver cable will be done by boat or barge (no dragging). Source lines will be oriented north to south and will have an east to west separation of 1,244.5 feet. Shotpoint spacing (all on private lands) along a source line will be 220 feet and consists of a single 30 foot maximum depth hole loaded with two and a half (2.5) pounds of dynamite or its equivalent (in this case an explosive known as "dynoseis"). The shot holes will be dug with a drill rig mounted on a John Deer tractor and back filled with bentonite to contain the explosive charge.

Program layout will be accomplished with either helicopter; ATV or foot traffic support, while normal vehicle traffic will be confined to the existing roads and shoulders. No shot holes will be drilled, or air guns used, in State waterways under this Geophysical Survey Permit.

STATUTORY AND OTHER REFERENCES:

- A. Public Resources Code section 6826.
- B. Public Resources Code section 21080(c).
- C. Public Resources Code section 6870.
- D. California Code of Regulations, section Title 2, Article 2.9, 2100.
- E. California Code of Regulations, section Title 2, 2905(e)(3).
- F. California Code of Regulations, section Title 14, 15074.

PERMIT STREAMLINING ACT DEADLINE:

September 23, 2000.

OTHER PERTINENT INFORMATION:

- 1. A Mitigated Negative Declaration was adopted for this project by the city of Rio Vista. The California State Lands Commission's staff has reviewed this document.
- 2. A Mitigation Monitoring Program was adopted by the city of Rio Vista in coordination with the California State Lands Commission.
- 3. This activity involves lands identified as possessing significant environmental values pursuant to Public Resources Code section 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

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that the permit, as part of the program for the project as proposed, is consistent with the use classification.

EXHIBITS:

- A. Survey Area
- B. Location Map
- C. Mitigation Monitoring Program

RECOMMENDED ACTION:

IT IS RECOMMENDED THAT THE COMMISSION:

CEQA FINDINGS:

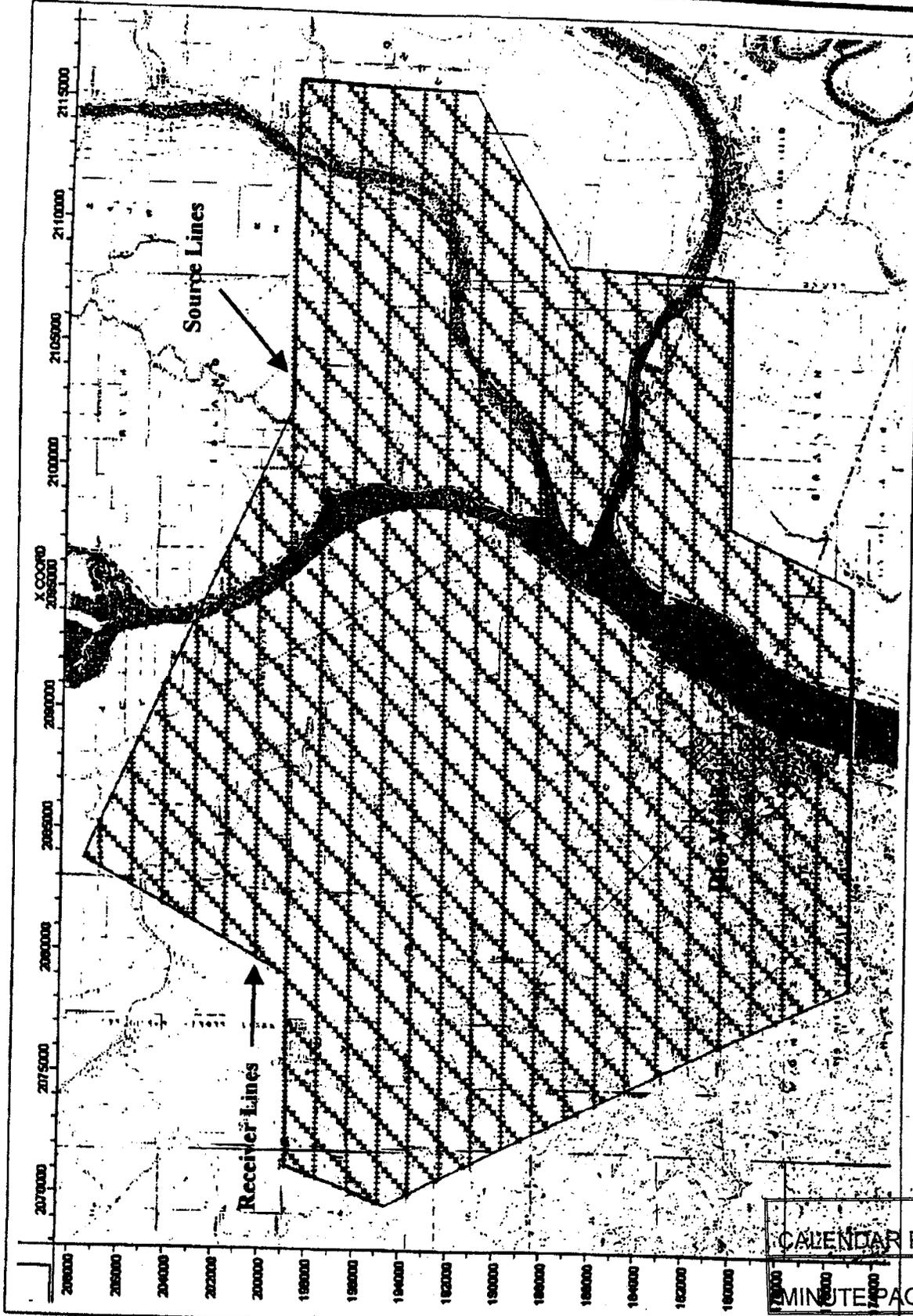
1. FIND THAT A MITIGATED NEGATIVE DECLARATION AND A MITIGATION MONITORING PROGRAM WERE PREPARED AND ADOPTED FOR THIS PROJECT BY THE CITY OF RIO VISTA AND THAT THE COMMISSION HAS REVIEWED AND CONSIDERED THE INFORMATION CONTAINED THEREIN. THE MITIGATED NEGATIVE DECLARATION IS ON FILE AT THE OFFICE OF THE CALIFORNIA STATE LANDS COMMISSION.
2. ADOPT THE MITIGATION MONITORING PROGRAM, AS CONTAINED IN EXHIBIT C, ATTACHED HERETO.
3. FIND THAT THIS ACTIVITY IS CONSISTENT WITH THE USE CLASSIFICATION DESIGNATED BY THE COMMISSION FOR THE LAND PURSUANT TO PUBLIC RESOURCES CODE SECTIONS 6370, ET. SEQ.

AUTHORIZATION:

AUTHORIZE ISSUANCE TO SHERIDAN CALIFORNIA ENERGY, INC., OF A NON-EXCLUSIVE GENERAL PERMIT TO CONDUCT GEOPHYSICAL SURVEYS UTILIZING CABLES AND GEOPHONES ON STATE WATERWAYS FOR THE PERIOD OCTOBER 1, 2000, THROUGH SEPTEMBER 30, 2001, WITHIN THE SURVEY AREA DESIGNATED ON EXHIBIT A.

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Sheridan California Energy, Inc. - Grand Island 3-D Survey

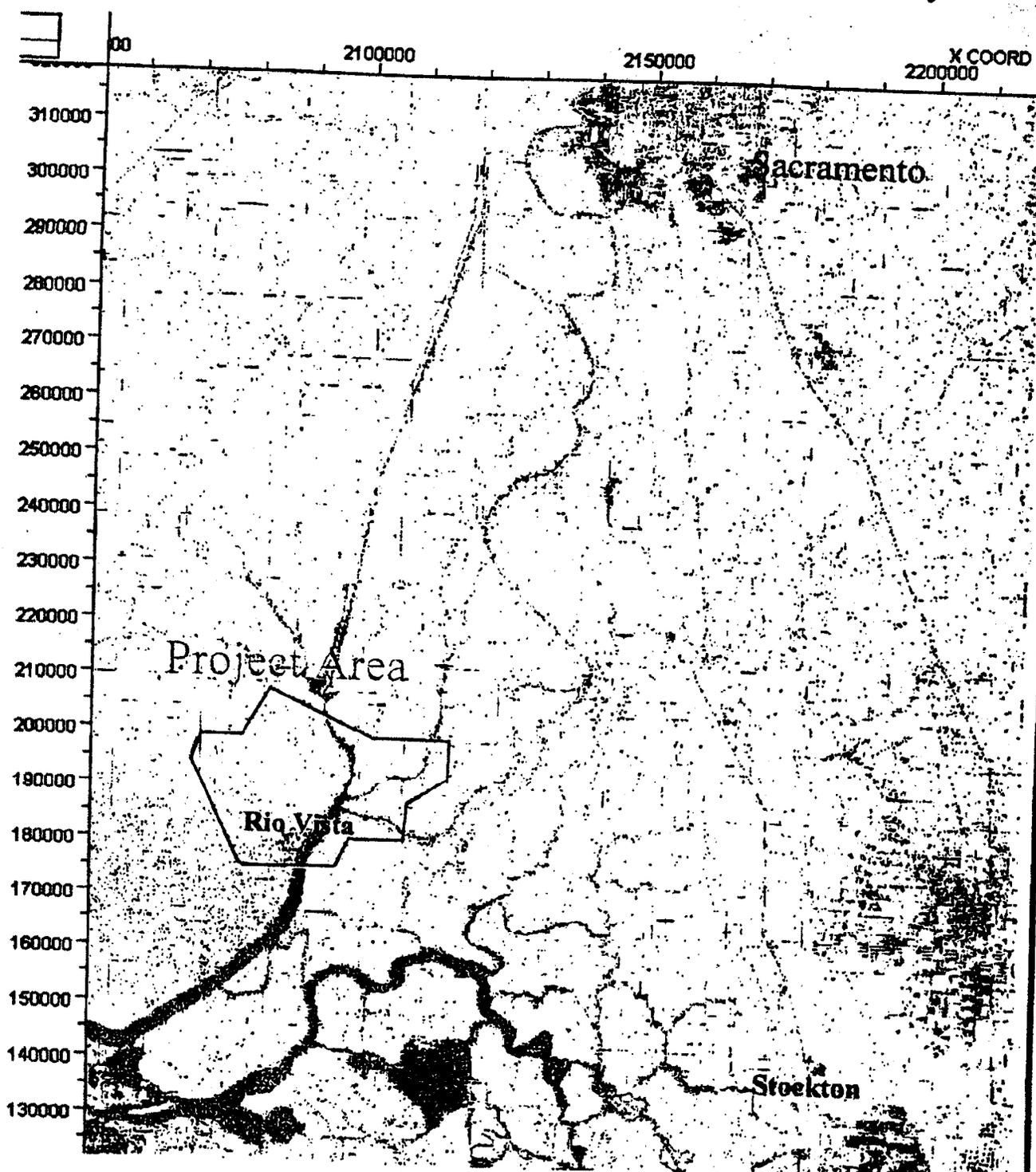


STATE LANDS COMMISSION EXHIBIT A

Robert A. Booker Consulting
Environmental Associates

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Calpine Natural Gas Corporation - Grand Island 3-D Survey



Robert A. Booher / BioEnvironmental

STATE LANDS COMMISSION EXHIBIT B

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EXHIBIT C

**Sheridan California Energy, Inc.
Grand Island 3D**

**Final
MITIGATION MONITORING PROGRAM**

In accordance with Section 15074(d) of the CEQA Guidelines, the following Mitigation Monitoring and Reporting Program (MMRP) identifies the mitigation measures for Sheridan California Energy, Inc.'s Grand Island 3D geophysical exploration project. The MMRP includes the monitoring and reporting provisions that will be required to ensure proper implementation of these measures.

The City of Rio Vista, as lead agency, is responsible for compliance and verification of activities within the City limits. State Lands Commission will oversee mitigation monitoring activities in jurisdictional tidal and submerged lands. Actual compliance monitoring will be carried out by one or more onsite monitors hired by the City, at the expense of the Applicant, and subject to supervision by the City of Rio Vista and State Lands Commission. The onsite compliance monitor(s) will be responsible for oversight of day-to-day activities; the City will also hire a compliance monitor to conduct spot checks for various aspects of the mitigation program, with an emphasis on biological resources.

Reports will be prepared weekly by the onsite compliance monitor(s) once field activities are initiated and will continue through project completion. These compliance reports will be submitted to the City of Rio Vista and copied to the California State Lands Commission, the U.S. Army Corps of Engineers, and the California Department of Fish and Game and any other requesting agency. Failure by the Applicant to comply with the mitigation, as outlined in this MMRP, may result in the revocation of the Conditional Use Permit and/or other project-related permits.

LAND USE

Mitigation Measure 2.1-A

Restrict placement of drilling equipment and explosives. No drilling equipment or explosives shall be used on streets within residential neighborhoods or commercial districts.

Responsible Parties:	Sheridan California Energy, Inc.
Monitoring Authority:	City of Rio Vista
Implementation Schedule:	Ongoing through project completion
Monitoring Schedule:	Upon issuance of encroachment permit
Funding:	Sheridan California Energy, Inc.
Performance Criteria:	Compliance with conditions of the City's encroachment permit

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Mitigation Measure 2.1-B

Comply with terms of encroachment permit(s). The Applicant shall comply with the provisions stated on the City's encroachment permit to avoid disruptions within urbanized areas.

Responsible Parties:	Sheridan California Energy, Inc.
Monitoring Authority:	City of Rio Vista
Implementation Schedule:	Ongoing through project completion
Monitoring Schedule:	Upon issuance of encroachment permit
Funding:	Sheridan California Energy, Inc.
Performance Criteria:	Compliance with conditions of the City's encroachment permit

Mitigation Measure 2.1-C

Limit hours of operations. The Applicant shall limit operations to daylight hours in order to minimize potential disruptions to the community.

Responsible Parties:	Sheridan California Energy, Inc.
Monitoring Authority:	City of Rio Vista
Implementation Schedule:	Ongoing through project completion
Monitoring Schedule:	Upon issuance of encroachment permit
Funding:	Sheridan California Energy, Inc.
Performance Criteria:	Compliance with conditions of the City's encroachment permit

WATER RESOURCES

Mitigation Measure 2.4-A

Properly dispose of generated waste. Waste generated during project activities shall be stored in designated waste collection containers away from waterways and shall be disposed of according to applicable regulatory requirements.

Responsible Parties:	Sheridan California Energy, Inc.
Monitoring Authority:	City of Rio Vista
Implementation Schedule:	Ongoing through project completion
Monitoring Schedule:	Weekly report filed by compliance monitor
Funding:	Sheridan California Energy, Inc.
Performance Criteria:	Water quality is maintained at pre-project levels

Mitigation Measure 2.4-B

Properly maintain vehicles and equipment. Vehicles and equipment shall be maintained properly to prevent leakage of hydrocarbons and other automotive fluids. All maintenance shall occur in designated areas located away from waterways.

Responsible Parties:	Sheridan California Energy, Inc.
Monitoring Authority:	City of Rio Vista
Implementation Schedule:	Ongoing through project completion
Monitoring Schedule:	Weekly report filed by compliance monitor
Funding:	Sheridan California Energy, Inc.
Performance Criteria:	Water quality is maintained at pre-project levels

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Mitigation Measure 2.4-C

Designate fueling areas that will minimize risk of water contamination. Fueling of vehicles shall occur in designated areas away from surface waters.

Responsible Parties:	Sheridan California Energy, Inc.
Monitoring Authority:	City of Rio Vista
Implementation Schedule:	Ongoing through project completion
Monitoring Schedule:	Weekly report filed by compliance monitor
Funding:	Sheridan California Energy, Inc.
Performance Criteria:	Water quality is maintained at pre-project levels

Mitigation Measure 2.4-D

Maintain accessibility to spill prevention and response equipment. Spill prevention and response equipment including drip pans, drop cloths, and absorbent materials shall be kept at all designated maintenance and fueling areas.

Responsible Parties:	Sheridan California Energy, Inc.
Monitoring Authority:	City of Rio Vista
Implementation Schedule:	Ongoing through project completion
Monitoring Schedule:	Weekly report filed by compliance monitor
Funding:	Sheridan California Energy, Inc.
Performance Criteria:	Quick response time

Mitigation Measure 2.4-E

Promptly clean up spills and notify responsible agencies. Any accidental spill of hydrocarbons or other vehicle fluids shall be cleaned up immediately. Crewmembers shall use absorbent material to prevent a spill from entering waterways. Responsible agencies shall be notified immediately in the event of an accidental spill to ensure proper clean up and disposal of the spilled material.

Responsible Parties:	Sheridan California Energy, Inc.
Monitoring Authority:	City of Rio Vista
Implementation Schedule:	In the event of any spills of vehicle fluids
Monitoring Schedule:	Follow up to any reports of spills involving contamination
Funding:	Sheridan California Energy, Inc.
Performance Criteria:	Spills involving water contamination are reported promptly and problem is resolved

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AIR QUALITY

Mitigation Measure 2.5-A

Minimize fugitive dust emissions. To minimize the generation of fugitive dust emissions, the Applicant shall implement the following dust control measures:

- Vehicles shall adhere to all posted speed limits.
- Vehicles operating in the project area shall be restricted to 15 miles per hour on all two-track trails.
- A helicopter and ATVs shall be used to transport equipment off-road.

Responsible Parties:	Sheridan California Energy, Inc.
Monitoring Authority:	City of Rio Vista
Implementation Schedule:	Ongoing through project completion
Monitoring Schedule:	Weekly report filed by compliance monitor
Funding:	Sheridan California Energy, Inc.
Performance Criteria:	Compliance with dust control measures

TRANSPORTATION AND CIRCULATION

Mitigation Measure 2.6-A

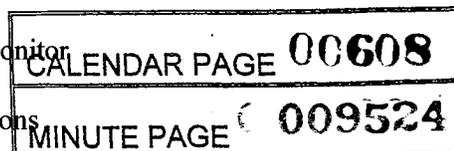
Obtain encroachment permit for operations on public roadways. The Applicant shall obtain and comply with terms of encroachment permits from applicable agencies prior to commencement of work on City or county roads, or State highways. Notice of start and completion of cable roadway crossing operations shall be provided to the agency.

Responsible Parties:	Sheridan California Energy, Inc.
Monitoring Authority:	City of Rio Vista, Caltrans, Solano County, and Sacramento County
Implementation Schedule:	Prior to issuance of encroachment permit
Monitoring Schedule:	Upon issuance of encroachment permit
Funding:	Sheridan California Energy, Inc.
Performance Criteria:	Compliance with terms of encroachment permit

Mitigation Measure 2.6-B

Conform with applicable rules and regulations. All permitted cable roadway crossings will conform to the rules and regulations pertaining to safety established by the California Division of Industrial Safety and CAL-OSHA.

Responsible Parties:	Sheridan California Energy, Inc.
Monitoring Authority:	City of Rio Vista
Implementation Schedule:	During all cable roadway crossings
Monitoring Schedule:	Weekly report filed by compliance monitor
Funding:	Sheridan California Energy, Inc.
Performance Criteria:	Compliance with applicable regulations



Mitigation Measure 2.6-C

Comply with applicable Caltrans regulations. All necessary traffic convenience and warning devices and personnel shall be provided, placed, and maintained by the project proponent in accordance with the Caltrans Manual of Traffic Control.

Responsible Parties:	Sheridan California Energy, Inc.
Monitoring Authority:	City of Rio Vista and Caltrans
Implementation Schedule:	Ongoing through project completion
Monitoring Schedule:	Weekly report filed by compliance monitor
Funding:	Sheridan California Energy, Inc.
Performance Criteria:	Compliance with Caltrans Manual of Traffic Control

Mitigation Measure 2.6-D

Properly secure seismic cable. The seismic cable shall be secured on either side of the roadway and across roadway intersections with rubberized road guards, tape or other means approved by the City.

Responsible Parties:	Sheridan California Energy, Inc.
Monitoring Authority:	City of Rio Vista
Implementation Schedule:	During all cable roadway crossings
Monitoring Schedule:	Weekly report filed by compliance monitor
Funding:	Sheridan California Energy, Inc.
Performance Criteria:	Compliance with terms of encroachment permit

Mitigation Measure 2.6-E

Coordinate flight schedule with Rio Vista Airport management. Prior to initiating any helicopter flights over the project area, the geophysical contractor and helicopter pilot shall coordinate with the Rio Vista Municipal Airport management.

Responsible Parties:	Sheridan California Energy, Inc.
Monitoring Authority:	City of Rio Vista
Implementation Schedule:	Prior to helicopter takeoff
Monitoring Schedule:	During helicopter flight operations
Funding:	Sheridan California Energy, Inc.
Performance Criteria:	Compliance with City airport authority

Mitigation Measure 2.6-F

Prohibit placement of geophones, cables and recording equipment in the Deep Water Channel. No geophones, seismic cables, or other recording equipment shall be placed in the Sacramento River Deep Water Channel.

Responsible Parties:	Sheridan California Energy, Inc.
Monitoring Authority:	City of Rio Vista and State Lands Commission
Implementation Schedule:	Ongoing through project completion
Monitoring Schedule:	Weekly report filed by compliance monitor
Funding:	Sheridan California Energy, Inc.
Performance Criteria:	Deep Water Channel remains clear of equipment

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Mitigation Measure 2.6-G

Comply with applicable navigational regulations. Project crews shall follow all applicable rules of navigational safety to avoid waterway hazards or conflicts.

Responsible Parties: Sheridan California Energy, Inc.
Monitoring Authority: City of Rio Vista and State Lands Commission
Implementation Schedule: Ongoing through project completion
Monitoring Schedule: Weekly report filed by compliance monitor
Funding: Sheridan California Energy, Inc.
Performance Criteria: Waterway hazards and conflicts are avoided

Mitigation Measure 2.6-H

Locate cables on the bottom of waterways. Seismic cables shall be located on the bottom of waterways to avoid potential conflicts with water traffic. Sufficient cable shall be available to conform to channel contours and to avoid having cables dragging on the channel bottom.

Responsible Parties: Sheridan California Energy, Inc.
Monitoring Authority: City of Rio Vista and State Lands Commission
Implementation Schedule: Ongoing through project completion
Monitoring Schedule: Weekly report filed by compliance monitor
Funding: Sheridan California Energy, Inc.
Performance Criteria: Waterways remain unimpaired for boaters

Mitigation Measure 2.6.3-I

Provide alerts to placement of cables in waterways. A flagger will be present on the equipment boats (holding a red flag) to alert persons of its presence. Boats will operate slowly and lower the seismic cable directly to the bottom of the channel at each stop.

Responsible Parties: Sheridan California Energy, Inc.
Monitoring Authority: City of Rio Vista and State Lands Commission
Implementation Schedule: Ongoing through project completion
Monitoring Schedule: Weekly report filed by compliance monitor
Funding: Sheridan California Energy, Inc.
Performance Criteria: Boaters will be adequately alerted so that they remain at a safe distance from equipment boats

Mitigation Measure 2.6-J

Limit hours of boating operation. No boating operations associated with the proposed project will occur during evening or nighttime hours.

Responsible Parties: Sheridan California Energy, Inc.
Monitoring Authority: City of Rio Vista and State Lands Commission
Implementation Schedule: Ongoing through project completion
Monitoring Schedule: Weekly report filed by compliance monitor
Funding: Sheridan California Energy, Inc.
Performance Criteria: Waterways are clear of equipment boats during evening and nighttime hours.

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BIOLOGICAL RESOURCES

Mitigation Measure 2.7-A

Conduct pre-activity special-status species survey. Prior to seismic start-up operations, the Applicant shall retain a qualified, City-approved biologist to assist seismic personnel in choosing receiver line water crossings and boat landing sites that are dominated by ruderal vegetation and conduct a pre-activity special-status species survey. This survey is to ensure that no special-status plant or wildlife species are present at these sites during the seismic project and that sensitive habitats (e.g., riparian) are avoided. The same process will be used for all waterway cable crossings and boat landing sites.

Responsible Parties:	Sheridan California Energy, Inc.
Monitoring Authority:	City of Rio Vista and State Lands Commission
Implementation Schedule:	Prior to commencement of seismic operations
Monitoring Schedule:	Ongoing through project completion with weekly report filed by compliance monitor
Funding:	Sheridan California Energy, Inc.
Performance Criteria:	Biological surveys are made available to the City upon request

Mitigation Measure 2.7-B

Avoid disturbance to roosting areas and nests of sensitive avian species. The project proponent shall ensure that all major roosting areas for waterfowl, greater sandhill cranes, and Aleutian Canada geese will be identified by a qualified wildlife biologist and will be monitored on an ongoing basis throughout the duration of the project and shall be avoided while they are occupied. Generally, birds will disperse off roost sites in the morning and return during the late afternoon. Timing restrictions for all project activities shall be implemented as follows:

No project activities, including helicopter flights, will occur within 1,000 feet of waterfowl, crane, or Aleutian Canada goose roost sites until after 8:00 a.m. each morning and only up until 4:00 p.m. each evening. These timing restrictions shall be modified based on the findings of the initial monitoring. If monitoring determines that roosts are occupied for longer periods during the day, these areas shall be avoided until cleared by the compliance monitor.

Responsible Parties:	Sheridan California Energy, Inc.
Monitoring Authority:	City of Rio Vista and State Lands Commission
Implementation Schedule:	Ongoing through project completion
Monitoring Schedule:	Ongoing through project completion with weekly report filed by compliance monitor
Funding:	Sheridan California Energy, Inc.
Performance Criteria:	Roosting areas and nests are not disturbed

Mitigation Measure 2.7-C

Establish a buffer area around nest sites. Where nest sites are identified during pre-activity surveys, the qualified biologist shall establish the following buffer zones around the nest sites and no seismic survey activities shall occur within these buffer zones. Buffer zones shall be verified with California Department of Fish and Game and/or U.S. Fish and Wildlife Service prior to commencement of project activities.



Responsible Parties: Sheridan California Energy, Inc.
Monitoring Authority: City of Rio Vista and State Lands Commission
Implementation Schedule: Buffers will be established before any project work begins. During all project activities, these buffer zones will not be entered or subjected to any seismic survey activities.
Monitoring Schedule: Ongoing through project completion with weekly report filed by compliance monitor
Funding: Sheridan California Energy, Inc.
Performance Criteria: No project activities will occur within established buffer zones.

Mitigation Measure 2.7-D

Avoid direct mortality of Greater Sandhill Cranes and Aleutian Canada Geese. To avoid mortality of cranes and Aleutian Canada geese, the project proponent shall ensure that no helicopter flights occur within 1,000 feet of all roost sites (as identified by the biological monitor) and areas identified by the biological monitor as major feeding concentrations until birds disperse from these areas and clearance is provided by the compliance monitor.

Responsible Parties: Sheridan California Energy, Inc.
Monitoring Authority: City of Rio Vista and State Lands Commission
Implementation Schedule: Ongoing through project completion
Monitoring Schedule: Ongoing through project completion with weekly report filed by compliance monitor
Funding: Sheridan California Energy, Inc.
Performance Criteria: Disturbance of roost sites and feeding areas is avoided

Mitigation Measure 2.7-E

Avoid removing natural vegetation. Drill areas will be limited to cultivated farmlands where possible. The Applicant shall ensure that no vegetation will be cut, cleared, or otherwise removed in any habitat types other than agricultural or herbaceous upland (ruderal) types and minimize removal to the greatest extent possible.

Responsible Parties: Sheridan California Energy, Inc.
Monitoring Authority: City of Rio Vista and State Lands Commission
Implementation Schedule: Ongoing through project completion
Monitoring Schedule: Ongoing through project completion with weekly report filed by compliance monitor
Funding: Sheridan California Energy, Inc.
Performance Criteria: Disturbance to natural vegetation is minimized

Mitigation Measure 2.7-F

Avoid disturbance to riparian and other wetland habitats and rare plants. To avoid impacts on riparian and other wetland habitats and rare plants, the project proponent shall ensure that project activities will avoid vegetated areas on the water side of levees. Where project activities must be conducted in these areas, the activities shall take place away from the riparian, or streamside, vegetation and emergent marsh vegetation. No excessive foot or vehicular traffic shall take place in the zone between 5 feet below mean tide and 8 feet above mean tide unless it is essential.

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unvegetated. For instance, the coupling and decoupling of geophones and cables shall be conducted on unvegetated portions of the levee above the vegetation zone; or in vegetation, so long as it is more than 8 feet above the mean tide level; or in boats or water areas beyond any emergent vegetation (rooted vegetation extending to or above the water surface). Boat landings will be minimized. Where landings are necessary they shall be on non-vegetated sand, gravel bars, or rip-rap revetment areas, whenever possible. Mud flat areas, vegetated or not, shall be avoided to the fullest extent possible.

Responsible Parties:	Sheridan California Energy, Inc.
Monitoring Authority:	City of Rio Vista and State Lands Commission
Implementation Schedule:	Ongoing through project completion
Monitoring Schedule:	Ongoing through project completion with weekly report filed by compliance monitor
Funding:	Sheridan California Energy, Inc.
Performance Criteria:	Riparian and other wetland habitats and rare plants are protected

Mitigation Measure 2.7-G

Avoid prolonged concentrated activities. To avoid keeping birds off of important sandhill crane and waterfowl foraging areas for extended periods, the project proponent shall avoid continual concentrated activity in any specific area for more than 5 consecutive days. If clean-up work or other activities require additional time in any specific area, no work will be permitted until after five (5) consecutive non-work days, unless the area is given clearance by the biological monitor.

Responsible Parties:	Sheridan California Energy, Inc.
Monitoring Authority:	City of Rio Vista and State Lands Commission
Implementation Schedule:	Ongoing through project completion
Monitoring Schedule:	Ongoing through project completion with weekly report filed by compliance monitor
Funding:	Sheridan California Energy, Inc.
Performance Criteria:	Maintain wildlife accessibility to foraging area

Mitigation Measure 2.7-H

Prohibit all project activities within 200 feet of all biologically unique habitats. To avoid impacts on sensitive habitats and associated plant and wildlife species, the project proponent shall ensure that all project activities remain at least 200 feet away from areas determined to be biologically unique habitats. These areas include in-basin wetland habitats associated with blow-out lakes and ponds, vernal pools, wetland and riparian habitats associated with irrigation channels, all in-channel islands, and in areas that support special status plant species. The biologist will identify areas in the field that have potential to support special status plant species (McCarten 1990). These areas shall be identified and a 200-foot buffer zone established with flagging.

These areas will be avoided by all types of vehicle and boat travel, used as a landing and/or staging zone. Seismic crew foot traffic (limited to 1-2 persons and directed by a biologist) will only be allowed in these areas. Examples of such areas include streamside edges that have potential to support sensitive wildlife and special status plant species and buffer zones adjacent to wetland areas.

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Responsible Parties:	Sheridan California Energy, Inc.
Monitoring Authority:	City of Rio Vista and State Lands Commission
Implementation Schedule:	Ongoing through project completion
Monitoring Schedule:	Ongoing through project completion with weekly report filed by compliance monitor
Funding:	Sheridan California Energy, Inc.
Performance Criteria:	Sensitive habitats and associated plant and wildlife species will be protected

BIOLOGICAL SURVEYS AND COMPLIANCE MONITORING TASKS

The biologist, who will also serve as an onsite monitor, shall coordinate with the cable layout, pick-up and shothole (drilling) crews, at a morning meeting each day, to provide biological survey data (collected ahead of the crew and from the previous day) for sensitive wildlife and special status plant species and unique habitats. These areas will be flagged in the field for project personnel avoidance. Communication will occur between the biologist/monitor and the seismic crew via hand-held two-way radio, mobile phone, and at the daily morning meeting concerning these issues.

The biologist will survey for resources and monitor resource compliance throughout the day. A biologist/monitor will be assigned to each crew if the crew is working in areas that are potential habitat for sensitive wildlife and special status plant species. This approach will also be used to document all sensitive flora and fauna, and direct seismic field crews for resource avoidance and cable and/or shothole re-routing and relocation. Compliance monitoring will be conducted on a daily basis as the crew moves through a particular area.

A typical day for the biologist/compliance monitor(s) will be as follows:

1. Communicate directly with the project supervisor and field crews. Project Monitors shall provide information daily to the project supervisors on the locations of important roost and feeding areas.
2. If necessary, conduct an employee orientation program for all project personnel. The orientation shall include the occurrence and distribution of listed species and other sensitive resources in the project area, measures being implemented to protect these sensitive resources during project actions, and applicable definitions and prohibitions under the state and federal Endangered Species Acts.
3. Attend a morning meeting at the project office to report on the previous day's surveys and monitoring. Communication on a daily basis and at numerous times per day will be mandatory between the biologist/monitor and the seismic crew so that resource avoidance and compliance will be met.
4. Dispatch to the field and conduct surveys for roosting waterfowl, and other sensitive wildlife and special status plant species as defined in the Negative Declaration, prior to project activities. Roost data collected the evening before will assist the biologist(s) on making decisions as to avoidance. Sensitive water channel crossings and other types of habitats will be identified in advance for avoidance.

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5. Communicate with the crew(s) by two-way radio several times per day, as necessary, to direct the crew(s) for reroutes, relocation, planning prior to approaching a sensitive habitat and/or resource.
6. The biologist(s) will direct the crew(s) throughout the day while conducting pre-activity biological surveys just ahead of the crew as they progress in laying out cable, or moving on to a new shothole drill site.
7. At the end of each day, the biologist(s) will return to the office and update the party manager and biological resource map(s). Biological resources and sensitive habitats will be placed on the map each day. Seismic surveyors will digitize these areas into their database. The crew(s) will be briefed on the location and provided with instructions for best practices of avoidance and mitigation. The briefing will be conducted at the morning meeting the next day and reinforced to the crew(s) throughout the day, as the biologist(s) work with them.
8. The monitor will prepare and submit weekly status reports to the City of Rio Vista and State Lands Commission with results of biological surveys and project compliance. Infractions will be conveyed to the seismic crew(s) and their managers and to the City or State Lands Commission, as appropriate, by phone or e-mail. Strategies will be implemented immediately to correct non-compliance, repair damage and ensure that they do not recur.

HAZARDS

Mitigation Measure 2.9-A

Restrict access to staging areas. Staging areas shall be identified with tape and will have signs posted restricting access to the area. Security around staging areas within the City limits shall be ongoing through the duration of the project while potential hazards remain, as determined by City law enforcement and/or fire officials.

Responsible Parties:	Sheridan California Energy, Inc.
Monitoring Authority:	City of Rio Vista
Implementation Schedule:	Ongoing through project completion
Monitoring Schedule:	Weekly report to be filed by compliance monitor
Funding:	Sheridan California Energy, Inc.
Performance Criteria:	Access by non-project personnel does not occur

Mitigation Measure 2.9-B

Restrict access to drilling sites. Drilling sites shall be taped to identify the work area and restrict access within the City of Rio Vista. Security around drilling sites within the City limits shall be ongoing through the duration of the project while potential hazards remain, as determined by City law enforcement and/or fire officials.

Responsible Parties:	Sheridan California Energy, Inc.
Monitoring Authority:	City of Rio Vista
Implementation Schedule:	Ongoing through project completion

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Monitoring Schedule: Weekly report to be filed by compliance monitor
Funding: Sheridan California Energy, Inc.
Performance Criteria: Access by non-project personnel does not occur

Mitigation Measure 2.9-C

Prohibit storage of explosives within the City limits. Explosives shall be stored outside the City limits and the Applicant shall obtain an explosives storage permit from the appropriate agency..

Responsible Parties: Sheridan California Energy, Inc.
Monitoring Authority: City of Rio Vista
Implementation Schedule: Ongoing through project completion
Monitoring Schedule: Upon issuance of explosives storage permit
Funding: Sheridan California Energy, Inc.
Performance Criteria: Compliance with terms of explosives storage permit

Mitigation Measure 2.9-D

Cease operations during periods of high winds and low humidity. The Fire Chief may require project operations to cease during periods of low humidity when winds are in excess of 15 miles per hour.

Responsible Parties: Sheridan California Energy, Inc.
Monitoring Authority: City of Rio Vista
Implementation Schedule: Ongoing through project completion
Monitoring Schedule: As weather conditions dictate
Funding: Sheridan California Energy, Inc.
Performance Criteria: Compliance with Fire Chief's directives

NOISE

Mitigation Measure 2.10-A

Limit hours of operation. This activity shall occur during daylight hours between 8 am. and 8 p.m. Monday through Saturday, in accordance with the City's Noise Ordinance.

Responsible Parties: Sheridan California Energy, Inc.
Monitoring Authority: City of Rio Vista
Implementation Schedule: Ongoing through the Drilling Phase
Monitoring Schedule: Prior to commencement of drilling operations
Funding: Sheridan California Energy, Inc.
Performance Criteria: Noise level complies with City Noise Ordinance

Mitigation Measure 2.10-B

Orient side of drill away from sensitive receptors. The drill rig shall be oriented so that either the front or back of the drill faces the sensitive receptor (i.e., the side of the drill shall not be oriented toward the sensitive receptor). This orientation will maintain noise levels in keeping with the City noise standards.

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Responsible Parties: Sheridan California Energy, Inc.
Monitoring Authority: City of Rio Vista
Implementation Schedule: Ongoing through the Drilling Phase
Monitoring Schedule: Prior to commencement of drilling operations
Funding: Sheridan California Energy, Inc.
Performance Criteria: Noise level complies with City Noise Ordinance

UTILITIES AND SERVICE SYSTEMS

Mitigation Measure 2.12-A

Restrict activities around power lines, power poles, underground utilities, wells and structures. Physical activities associated with the seismic survey (placement of source points, drilling of source points, and/or detonation of source points) shall not occur within 40 feet of power lines, telephones, or electric poles, 100-200 feet of underground utilities (in the unincorporated area) and 300 feet of oil and gas wells, water wells, building, or other structures.

Responsible Parties: Sheridan California Energy, Inc.
Monitoring Authority: City of Rio Vista
Implementation Schedule: Ongoing through project completion
Monitoring Schedule: Weekly report filed by compliance monitor
Funding: Sheridan California Energy, Inc.
Performance Criteria: Compliance with the above-described standards

Mitigation Measure 2.12-B

Maintain distance greater than 100 feet from underground utilities within the City limits. The project shall comply with the City of Rio Vista's Hydrocarbon Ordinance No. 476 and maintain a distance greater than 100 feet from underground utilities when drilling within the City limits.

Responsible Parties: Sheridan California Energy, Inc.
Monitoring Authority: City of Rio Vista
Implementation Schedule: Ongoing through project completion
Monitoring Schedule: Weekly report filed by compliance monitor
Funding: Sheridan California Energy, Inc.
Performance Criteria: Compliance with the City's Hydrocarbon Ordinance

CULTURAL RESOURCES

Mitigation Measure 2.14-A

Contact the Native American Heritage Commission. The Native American Heritage Commission will be contacted to determine if there are any sacred lands in the project area. If any identified sacred lands are identified, the Applicant will work with the Native American Heritage Commission to ensure that these areas are avoided by the project.

Responsible Parties: Sheridan California Energy, Inc.
Monitoring Authority: City of Rio Vista

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Implementation Schedule: During pre-construction survey
Monitoring Schedule: Prior to commencement of project activities
Funding: Sheridan California Energy, Inc.
Performance Criteria: Sacred Native American lands are avoided

Mitigation Measure 2.14-B

Conduct archaeological surveys of the project area. A qualified consultant will conduct archaeological surveys of the project area. Based on a preliminary review of the area by Pacific Legacy, an archaeological consulting firm, it is anticipated that approximately 80 linear miles of source lines in areas above sea level will require archaeological surveys along these lines to a distance of 10 meters on either side of the centerline. It is also assumed that receiver lines do not need to be surveyed because these would not have the potential to have an effect on cultural resources.

Responsible Parties: Sheridan California Energy, Inc.
Monitoring Authority: City of Rio Vista and State Lands Commission
Implementation Schedule: During pre-construction survey
Monitoring Schedule: Prior to commencement of project activities
Funding: Sheridan California Energy, Inc.
Performance Criteria: Sensitive archaeological sites are avoided

Mitigation Measure 2.14-C

Flag prehistoric and historic archaeological sites. Prehistoric and historic archaeological sites will be flagged for avoidance and recorded on State of California Department of Parks and Recreation 523 forms. Buildings and structures will not be recorded because these would be avoided by the project. However, it should be noted that the extent of the archaeological survey might vary based on the result of the cultural resources archival literature search and records review.

Responsible Parties: Sheridan California Energy, Inc.
Monitoring Authority: City of Rio Vista and State Lands Commission
Implementation Schedule: Ongoing through completion of the project
Monitoring Schedule: Weekly report filed by compliance monitor
Funding: Sheridan California Energy, Inc.
Performance Criteria: Delivery of completed 523 forms

Mitigation Measure 2.14-D

Halt work immediately if any cultural resources are discovered. All project personnel involved in any form of ground disturbance shall be advised of the remote possibility of encountering subsurface cultural resources. If such resources are encountered or suspected (such as chipped or ground stone debitage, historic debris, building foundations, human bone, remnants of village structure, lithic scatters, etc.), work shall be halted immediately and the City of Rio Vista (or the appropriate jurisdiction outside the City limits) contacted. A professional archaeologist shall be consulted to access any discoveries and develop appropriate management recommendations for archaeological resource treatment. If bones are encountered and appear to be human, California law requires that the County coroner and Native American Commission be contacted and, if Native American resources are involved,

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organizations and locally recognized individuals shall be notified and consulted about any plans for treatment.

Responsible Parties:	Sheridan California Energy, Inc.
Monitoring Authority:	City of Rio Vista and State Lands Commission
Implementation Schedule:	Ongoing through completion of the project
Monitoring Schedule:	Weekly report filed by compliance monitor
Funding:	Sheridan California Energy, Inc.
Performance Criteria:	Cultural and archaeological resources are protected and loss, if any, is compensated.

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