

MINUTE ITEM

22

W 23658
W 23621
Fong
Griggs
Meier
Small

**CERTIFY AN ENVIRONMENTAL IMPACT REPORT,
APPROVE LEASES FOR RIGHT-OF-WAY USE AND INDUSTRIAL USE,
APPROVE DELEGATION OF AUTHORITY**

Dwight Sanders asked Mary Griggs, Project Officer, to present Calendar Item 22, to be followed by Ron Small, staff counsel, who will address the items more related to the use of the school lands in the project.

Ms. Griggs introduced several letters of comment from various parties.

Scott Doksansky, Executive Director of the Barstow Area Chamber of Commerce, read into the record a letter from the city manager of the City of Barstow, Eric Ziegler, urging the Commission to deny certification of the lease as the Chamber of Commerce would prefer the pipeline to go north of the city as opposed to where it is slated in the south.

Commissioner Manning questioned why this particular location was chosen. Mr. Ferguson, attorney for the Mojave Pipeline Company, stated that to the best of his recollection the Bureau of Land Management and their comments on the original EIS/EIR recommended that a utility corridor be followed to the south of the city rather than the north of the city. The route they are following is also a utility corridor. Also Mojave is required to follow that route by one of the specific mitigation measures required by FERC.

After considerable discussion it was adopted 2-0 that the staff recommendation be approved.



The City of

BARSTOW

California

March 1, 1991

State Lands Commission
1807 Thirteenth Street
Sacramento, CA 95814

Re: Item 22, March 6, 1991 Agenda
Mojave Pipeline Company EIR 400

Honorable Commission:

It is with a sense of deep frustration that the following letter is written.

The City of Barstow has been commenting on and following this project since February of 1986, when the first scoping meeting was conducted in Barstow on what was then referred to as the Mojave-Kern River-El Dorado Environmental Impact Report. We submitted comments at that time on issues that should be addressed in the EIR.

Since that time, the following has occurred:

- 1) April 15, 1987 - Written comments submitted to the Federal Energy Regulatory Commission (FERC) on the EIR/EIS. FERC is the lead agency.
- 2) January, 1988 - Received Final EIR/EIS. Barstow's comments were not addressed.
- 3) January 26, 1988 - Spoke with Robert Arvedlund, Federal Energy Regulatory Commission about the failure of the EIR/EIS to address Barstow's comments. He suggested I send another copy to his attention and he would make them part of the record.
- 4) January 26, 1988 - Mailed another copy of the comments to FERC. No response.
- 5) February, 1990 - A representative of Mojave Pipeline Company came to Barstow with a preliminary pipeline route. This particular route did not coincide with previous proposals to place the pipeline in the BLM utility corridor north of Barstow. Mojave Pipeline was advised in writing (copy attached).

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State Lands Commission
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March 1, 1991

- 6) March, 1990 - Same comments reiterated to the Fluor Daniel Company. Copies sent to State Land Commission and Federal Energy Regulatory Commission. No response.
- 7) January 24, 1991 - Mojave Pipeline Company graciously delivers a copy of Mojave-Kern River Pipeline Projects - Environmental Impact Report Amendment (State Lands Commission). Unfortunately the final date for comments was January 18, 1991. Why was Barstow not in the distribution list for this revised EIR?
- 8) February 11, 1991 - Comments sent to Al Powers (Mojave Pipeline) and the State Lands Commission.
- 9) February 21, 1991 - Final EIR amendment received. Barstow's comments not addressed.

As I think you can see, this whole EIR process has been fatally defective from beginning to end, both in process and in substance.

The Mojave Pipeline route crosses an active fault (Lenwood), which is on the Alquist-Priolo Special Studies Zone Maps of the State Division of Mines and Geology. There is a considerable amount of residential development, both existing and planned, in the area of West Main Street where the pipeline will be constructed. These impacts are not addressed in the EIR.

Given the foregoing, we urge the Commission to deny certification of EIR 400, Mojave-Kern River Pipeline Projects.

The City of Barstow remains ready and willing to discuss the impacts and alternatives of this project.

Sincerely,



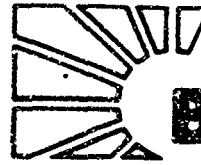
Eric G. Ziegler
City Manager

EGZ:jb

Enclosures: Copies of All Correspondence

1-1-91

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The City of

BARSTOW

California

February 11, 1991

Al Powers
Field Services Coordinator
Mojave Pipeline Operating Company
P.O. Box 10269
Bakersfield, CA 93389-0269

Dear Mr. Powers:

Thank you for hand delivering a copy of the Environmental Impact Report Amendment for the Mojave-Kern River Pipeline Projects on January 24, 1991. It is unfortunate that the final date for comments appears to have been January 18, 1991.

As we have pointed out in previous correspondence, the City of Barstow feels that additional pipelines should utilize the existing utility corridor north of Barstow. The Lenwood Interchange area is in the process of being developed as prime commercial and industrial property, which could be impacted by the alignment of a pipeline through this area. There is a considerable amount of residential development, both existing and planned, near the intersection of Lenwood Road and West Main Street.

We also continue to be concerned with the geology of the area. Even with mitigation and safety measures, potential pipe rupture or displacement due to potential activity on the Lenwood fault would constitute a good reason for routing this pipeline away from population concentrations.

We have also been advised by a property owner in the area that the route now under easement is not the route shown on Map 9 in this amended EIR.

If we may provide any additional information in this matter, please feel free to call.

Very truly yours,

Paul Warner
Planning Director

PW:lc

cc: Mary Griggs, State Lands Commission
Eric Ziegler

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The City of
BARSTOW
California

March 28, 1990

Al Powers
Fluor Daniel, Inc.
One Fluor Daniel Drive
Sugar Land, TX 77478

RE: Transmission Pipeline Proposals through the Lenwood
area of Barstow - Your Inquiry of March 23, 1990

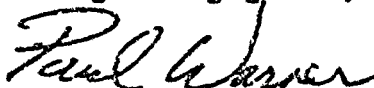
Attached is a letter which was sent to Mojave Pipeline on
February 7, 1990 regarding natural gas transmission lines
through Lenwood.

As we indicated in this letter, the Lenwood Interchange area
is in the process of being developed as prime commercial and
industrial property. Routing of a pipeline through this
area has the potential to split properties and render them
undevelopable. A McDonald's and Pilot Oil Travel Center
have already been constructed in this area.

As we also noted, this pipeline alignment was never
contained in any environmental documentation received by the
City of Barstow. Additionally, you should be aware that
there is a considerable amount of residential development
near the intersection of Lenwood Road and Main Street.

The City of Barstow feels that any additional pipelines in
this area should utilize the existing utility corridor north
of Barstow.

Very truly yours,



Paul Warner
City Planner

PW:lc

cc: Eric Ziegler
Johnny Tan
Mary Griggs, State Land Commission
Robert Arvedlund, F.E.R.C.

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The City of
BARSTOW
California

February 7, 1990

Mojave Pipeline Operating Company
P.O. Box 10269
Bakersfield, CA 93389
Attention: Dennis Egger, Survey Manager

RE: Proposed Mojave Pipeline

Enclosed are copies of the City of Barstow's Development Constraints Map, showing the location of all earthquake faults and fault traces which traverse the City, and the State of California Special Studies Zone (Alquist Priolo), showing the Lenwood Fault. The Lenwood Fault has been upgraded to active fault status and is currently a special studies zone of the State Division of Mines and Geology.

Also enclosed is a site development plan for development of the northwest quadrant of Lenwood Road and Interstate 15. Please note that Pilot Oil and McDonald's have already been developed.

Additional transmission pipelines through the Lenwood area would be inconsistent with both the Barstow General Plan and the Lenwood Specific Plan. The Lenwood Interchange area is in the process of being developed as prime commercial and industrial property.

The proposed routing of a pipeline through this area was never submitted the City of Barstow for review and approval. The City of Barstow attended scoping meetings on the Mojave-Kern River-El Dorado Environmental Impact Report, reviewed the Draft Environmental Impact Report and submitted comments to the Federal Energy Regulatory Commission (which were never responded to). Additionally, it is noted that the pipeline alignments for the Mojave project (as shown in the EIR) were all shown north of Barstow.

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Mojave Pipeline Operating Co.

February 7, 1990

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NOTE 9A B

I hope this information is of assistance to you in your engineering work. Please call if we can be of any additional assistance.

Very truly yours,



Paul Warner
City Planner

PW:lc

CC: City Manager
City Engineer

Encl:

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The City of
BARSTOW
California

January 26, 1988

Robert Arvedlund
Federal Energy Regulatory Commission
825 North Capitol Street, N.E.
Washington, D.C. 20426

Re: Environmental Impact Report/
Statement for Mojave-Kern River-El Dorado
Natural Gas Pipeline Projects

Dear Sir:

Attached are the comments which the City of Barstow sent to the Commission in April of 1987. I appreciate your cooperation in making them part of the record, and addressing or mitigating these concerns as appropriate.

If we may be of any further assistance in this matter, please feel free to contact us.

Sincerely,


Paul Warner
City Planner

/s/

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The City of
BARSTOW
California

April 15, 1987

Office of the Secretary
Federal Energy Regulatory Commission
825 North Capitol Street, N.E.
Washington, D.C. 20426

Re: Environmental Impact Report Statement for Mojave-Kern River-El Dorado
Natural Gas Pipeline Projects

The City of Barstow, California has reviewed this draft EIR and has the following comments:

1) Traffic delays in the Barstow area are listed as a cumulative impact on page 4-280 of Volume 1. The magnitude of these delays needs to be described, so that the impact to Barstow can be adequately assessed. In addition to a more definitive description, the City of Barstow would ask that mitigation measures be proposed to minimize these delays, that these measures be approved by the City of Barstow and that the cost of providing these measures be borne by the applicant.

2) On Page 4-180 of Volume 1, watering is proposed to be the mitigation measure for fugitive dust. Given the wind patterns in the Barstow area, this may not be totally adequate. Recent pipeline trenching has shown this to be the case. If watering is utilized, how many watering trucks will be utilized per construction spread, and at what frequency will the water be applied?

We appreciate the opportunity to respond to this Environmental Impact Report/Statement and would appreciate receiving a copy of the Final EIR, including any responses to comments received.

If we may be of any further assistance in this matter, please feel free to contact us.

Sincerely,



E. Wayne Lamm
City Manager

jb

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THE *Paragon* COMPANIES

March 5, 1991

Mr. Leo McCarthy
1807 - 13th Street
Sacramento, CA 95814

RE: Agenda Item No. 22

Dear Mr. McCarthy:

After reviewing the Order of Business for the Wednesday, March 6th Public Meeting, it is my belief that the documents are incomplete and require further review.

The areas of my concern are:

- 1) The pipeline bisects a large area of population without concerns for property lines or proposed planning areas.
- 2) The pipeline in Barstow area runs across the Lenwood Fault through the Alquist-Preiolo Special Study Zone. This zone has been shown to be an active fault area and I question the wisdom of a major gas line through this fault zone.
- 3) I question proper sequa notification in compliance with the review process relative to the concerns of the City of Barstow.

It is my suggestion that more environmental assessment is needed before approval.

Thank you for your consideration of my proposal.

Sincerely,

PARAGON HOMES, INC.

Brian Catalde

BC/dh

C: Brenda Duncan, Calendar Coordinator
Gray Davis, State Controller, Commissioner
Thomas W. Hayes, Director of Finance, Commissioner

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THE *Paragon* COMPANIES

March 5, 1991

Mr. Gray Davis
1807 - 13th Street
Sacramento, CA 95814

RE: Agenda Item No. 22

Dear Mr. Davis:

After reviewing the Order of Business for the Wednesday, March 6th Public Meeting, it is my belief that the documents are incomplete and require further review.

The areas of my concern are:

- 1) The pipeline bisects a large area of population without concerns for property lines or proposed planning areas.
- 2) The pipeline in Barstow area runs across the Lenwood Fault through the Alquist-Preiolo Special Study Zone. This zone has been shown to be an active fault area and I question the wisdom of a major gas line through this fault zone.
- 3) I question proper sequa notification in compliance with the review process relative to the concerns of the City of Barstow.

It is my suggestion that more environmental assessment is needed before approval.

Thank you for your consideration of my proposal.

Sincerely,

PARAGON COMPANIES, INC.

Brian Catalde

BC/dh

C: Brenda Duncan, Calendar Coordinator
Leo McCarthy, Lieutenant Governor, Chairman
Thomas W. Hayes, Director of Finance, Commissioner

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THE *Paragon* COMPANIES

March 5, 1991

Mr. Thomas Hayes
1807 - 13th Street
Sacramento, CA 95814

RE: Agenda Item No. 22

Dear Tom:

After reviewing the Order of Business for the Wednesday, March 6th Public Meeting, it is my belief that the documents are incomplete and require further review.

The areas of my concern are:

- 1) The pipeline bisects a large area of population without concerns for property lines or proposed planning areas.
- 2) The pipeline in Barstow area runs across the Lenwood Fault through the Alquist-Preiolo Special Study Zone. This zone has been shown to be an active fault area and I question the wisdom of a major gas line through this fault zone.
- 3) I question proper sequa notification in compliance with the review process relative to the concerns of the City of Barstow.

It is my suggestion that more environmental assessment is needed before approval.

Thank you for your consideration of my proposal.

Sincerely,

PARAGON HOMES, INC.

Brian Catalde

BC/dh

C: Brenda Duncan, Calendar Coordinator
Leo McCarthy, Lieutenant Governor, Chairman
Gray Davis, State Controller, Commissioner

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THE *Paragon* COMPANIES

March 5, 1991

Ms. Brenda Duncan
1807 - 13th Street
Sacramento, CA 95814

RE: Agenda Item No. 22.

Dear Ms. Duncan:

After reviewing the Order of Business for the Wednesday, March 6th Public Meeting, it is my belief that the documents are incomplete and require further review.

The areas of my concern are:

- 1) The pipeline bisects a large area of population without concerns for property lines or proposed planning areas.
- 2) The pipeline in Barstow area runs across the Lenwood Fault through the Alquist-Preiolo Special Study Zone. This zone has been shown to be an active fault area and I question the wisdom of a major gas line through this fault zone.
- 3) I question proper sequa notification in compliance with the review process relative to the concerns of the City of Barstow.

It is my suggestion that more environmental assessment is needed before approval.

Thank you for your consideration of my proposal.

Sincerely,

PARAGON HOMES, INC.

Brian Catalde

BC/dh

C: Leo T. McCarthy, Lieutenant Governor, Chairman
Gray Davis, State Controller, Commissioner
Thomas W. Hayes, Director of Finance, Commissioner

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March 5, 1991

VIA TELECOPY AND FEDERAL EXPRESS

Ms. Mary Griggs
Project Manager
State Lands Commission
1807-13th Street
Sacramento, CA 95814

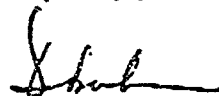
Re: Mojave-Kern River Pipeline Project Comments to FEIR/S

Dear Ms. Griggs:

As you know, we represent Robert and Melissa Sutton, owners of the CZQ Ranch located in Kern County, California (the "Suttons"). This letter serves to inform you that, assuming that the Sutton Ranch Reroute reflected on page G-63 of the Final Amendment is approved, the Mojave Pipeline Company, Kern River Gas Transmission Company and the Suttons will have reached a mutually satisfactory accord relating to the issues raised in the comments as they pertain to the CZQ Ranch by virtue of pending agreements between the parties.

Thank you for your cooperation.

Very truly yours,



Deborah S. Siegel
of LATHAM & WATKINS

cc: Michael Ferguson, Esq.
Thomas V. DeNatale, Jr., Esq.
Allan J. Abshez, Esq.
Robert & Melissa Sutton
John A. Woodward, Esq.

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March 4, 1991

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VIA TELECOPY AND FEDERAL EXPRESS

Ms. Mary Griggs
State Lands Commission
1087 13th Street
Sacramento, California 95814

Re: Mojave Kern River Pipelines Projects, Comments
re Environmental Impact Report for Proposed Amendment
SCH 85081912, SCH 90021170, File Ref.: W 30038

Dear Griggs:

We represent Robert and Melissa Sutton (the "Suttons"), owners of the CZQ Ranch located in Kern County, California. The Suttons have separately submitted to Commission staff extensive comments and objections to the Draft and Final EIR for the proposed Amendment to the Mojave/Kern Natural Gas Pipeline Project (which comments were dated January 18, 1991 and March 4, 1991) (the "Project"). In addition to these many objections, the Suttons wish to bring to each Commissioner's personal attention a critical issue whose deficient treatment in the documentation of this Project should lead the State Lands Commission to disapprove the Project, or to delay decision to permit subsequent environmental analysis and public comment.

THE DRAFT AND FINAL EIR FOR THE PROJECT COMPLETELY
FAILED TO ADDRESS POTENTIAL RISKS TO PUBLIC SAFETY
WHICH MAY ARISE FROM AN EXPLOSION OF A
HIGH-PRESSURE NATURAL GAS PIPELINE.

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Ms. Mary Griggs
March 4, 1991
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In 1985 in Beaumont Kentucky, a smaller pipeline than is now proposed by Mojave/Kern, ruptured due to corrosion. The rupture tore out 29 feet of the pipe, blew apart 16 feet of a 36 inch diameter casing pipe that surrounded the carrier, blasted an opening across Kentucky State Highway 60 and cut out a crater 90 feet long, 38 feet wide and 12 feet deep. 5 persons were killed and 3 were injured in a house 320 feet north of the rupture and numerous buildings and parked cars were destroyed. Special Report 219, Pipelines and Public Safety, Transportation and Research for the National Research Council, Washington D.C. (1988).

The environmental documentation before the Commission completely conceals and fails to address such impacts. The Final EIR merely states "[i]t is possible for accidents to occur resulting in the release of natural gas. If subjected to an ignition source, this released gas can burn and/or explode." The Final EIR goes on to recite that all required engineering precautions will be taken. This is a glib and shallow treatment of a very serious subject.

As evidenced by the Beaumont, Kentucky incident, high pressure natural gas pipelines do fail despite engineering precautions. When high-pressure natural gas pipelines fail, their effects can be catastrophic and result in death and destruction far beyond minimal easements, such as those which are being acquired in connection with the Mojave/Kern Pipeline. The Final EIR indicates that Mojave/Kern currently intends to place the pipeline within 50 feet of existing and future residences.

To protect the public safety of the citizens of California, the Commission should demand that potential risk of upset impacts be candidly disclosed in full detail as required by CEQA, and that they be studied and critiqued with the benefit of public review. As lead agency within California, the Commission should require that such study include a consideration of increasing the size of pipeline easements to ensure adequate clear-zones which will protect the lives and property of the citizens of California along the entirety of the pipeline route in California. This issue assumes special importance because clear-zone standards for high pressure natural gas pipelines have not been addressed by other federal or California state regulations to date.

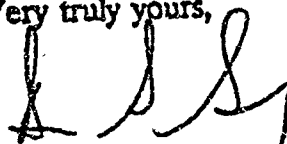
The Suttons are confident that the Commission will fulfill its responsibility by disapproving the Project, and will not permit the critical issue of public safety and the many other issues raised by the Suttons to be swept under the rug in favor of the narrow interests of private enterprise. That this issue has been

LATHAM & WATKINS

Ms. Mary Griggs
March 4, 1991
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brought to light at this late date is regrettable but chiefly attributable to the defective project documentation and the procedures used in permitting this Project, which have denied the public meaningful information and opportunity to comment.

Very truly yours,



Deborah S. Siegel
of LATHAM & WATKINS

cc: Mr. & Mrs. Robert Sutton (via messenger)
Dan Lungren, Esq., California Attorney General (via telecopy & messenger)
Mr. Charles Warren, Executive Director, SLC

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March 4, 1991

BY FEDERAL EXPRESS

Ms. Mary Griggs
Project Manager
State Lands Commission
1807 13th Street
Sacramento, California 95814

Re: Mojave-Kern River Pipeline Project (the "Project")

Dear Ms. Griggs:

As you know, we represent Robert and Melissa Sutton, owners of the CZQ Ranch (the "Suttons"), located in Kern County, California. In addition to renewing their objections under their initial set of comments, the Suttons are filing this second set of comments to point out some of the many inadequacies of the responses contained in the Final Environmental Impact Report (the "Final EIR"). The most basic inadequacy is that the SLC has not prepared and circulated for public review a Revised Draft EIR in accordance with the requirements of the California Environmental Quality Act ("CEQA"). In addition, as discussed in the many examples below, despite an effort to make them appear long and detailed, the responses contained in the Final EIR are substantively flawed because they: (a) frequently contain

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Ms. Mary Griggs
March 4, 1991
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conclusory statements unsupported by factual information in violation of CEQA Guidelines Section 15088; (b) fail to provide detailed responses and thereby allow stubborn problems or serious criticism to be "swept under the rug," People v. County of Kern, 39 Cal.App.3d 830, 841 (1974); (c) rely on future studies and fail to provide currently requested analysis, EPIC, Inc. v. Johnson, 170 Cal.App. 3d 604 (1985); (d) fail to provide responses which are specifically tailored to the comment, question or unique concern raised, Clary v. County of Stanislaus, 118 Cal.App.3d 348 (1981); or (e) attempt to rely on boilerplate statements such as 'the project as conditioned should adequately mitigate any adverse effect' or 'the project will conform with all applicable regulations,' Gallegos v. State Board of Forestry, 76 Cal.App.3d 945 (1978). These additional deficiencies should lead the SLC to decline to certify the Final EIR.

THE SUTTON RANCH REROUTE

The Suttons appreciate that the Commission has modified the Project to change the route of the pipeline across the C2Q Ranch as reflected in the Final EIR for the Amendment. As we indicated earlier, the originally proposed route would have devastated an important and sensitive oak tree habitat. Clearly, the reroute is a feasible mitigation measure of the type which

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Ms. Mary Griggs
March 4, 1991
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should have been identified by the Draft EIR. The modification of the route, however, while clearly feasible and appropriate, does not alleviate the Suttons' other concerns with the Project and the environmental review (or lack thereof) which has taken place to date. For all of the other reasons set forth below, a Revised Draft EIR should be prepared and circulated for public review and comment, describing the environmental effects of the Project not only along the reroute through the CZQ Ranch, but across all of the route within California.

PUBLIC SAFETY CONCERNS

THE DRAFT AND FINAL EIR FOR THE PROJECT COMPLETELY FAILS TO ADDRESS POTENTIAL RISKS TO PUBLIC SAFETY WHICH MAY ARISE FROM A POTENTIAL EXPLOSION OF A HIGH-PRESSURE NATURAL GAS PIPELINE.

In 1985 in Beaumont Kentucky, a smaller high-pressure natural gas pipeline than now proposed by Mojave/Kern, ruptured due to corrosion. The rupture tore out 29 feet of the pipe, blew apart 16 feet of a 36 inch diameter casing pipe that surrounded the carrier, blasted an opening across Kentucky State Highway 60 and cut out a crater 90 feet long, 38 feet wide and 12 feet deep. 3 persons were killed and 3 were injured in a house 320 feet north of the rupture and numerous buildings and parked cars were

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destroyed. Special Report 219. Pipelines and Public Safety,
Transportation and Research for the National Research Council,
Washington D.C. (1988).

The environmental documentation before the SLC completely conceals and fails to address such impacts. The Final EIR merely states "it is possible for accidents to occur resulting in the release of natural gas. If subjected to an ignition source, this released gas can burn and/or explode." The Final EIR goes on to recite that all required engineering precautions will be taken. This is a glib and shallow treatment of a very serious subject.

As evidenced by the Beaumont, Kentucky incident only six years ago, high pressure natural gas pipelines do fail despite engineering precautions. When high-pressure natural gas pipelines fail, their effects can be catastrophic and result in death and destruction far beyond minimal easements, such as those which are being required in connection with the Mojave/Kern Pipeline. The Final EIR indicates that Mojave/Kern currently intends to place the pipeline within 50 feet of existing and future residences. To protect the public safety of the citizens of California, the Commission should demand that potential risk of upset impacts be candidly disclosed in full detail as required by CEQA, and that they be studied and critiqued with the benefit of public review. As lead agency within California, the SLC

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should require that such study include a consideration of increasing the size of pipeline easements to ensure setbacks which will protect the lives and property of the citizens of California along the entire pipeline route in California. This issue assumes special importance because safety setback standards for high pressure natural gas pipelines have not been addressed by other federal or California state regulations to date.

GENERAL COMMENTS

Initially, the Suttons request clarification of the staff's responses to comments which contain certain conflicting positions. For example, staff's response to the Landsberger comments concerning access to properties states that permission is not required to enter the property while staff's response to the Suttons comment number 2 indicates that court ordered permission to access the CZQ Ranch was required. Aside from this contradiction, there is absolutely no excuse for the lack of thorough, comprehensive studies on the CZQ Ranch and other portions of the route in California before the Draft EIR was published. Indeed, a few site-specific studies were conducted at the CZQ Ranch for the first time in January of this year in response to the Suttons comments which revealed significant new biotic information. It would violate CEQA to approve a Final EIR based on incomplete studies conducted within two months of

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approval of the Final EIR. Since the public did not have an opportunity to review and comment on the substantial changes indicated by the results of these studies, as well as the rest of staff's errata in the Final EIR, the Final EIR should not be certified.

The following numbered paragraphs correspond to the paragraph numbers of staff's responses to the Suttons initial set of comments.

1. Staff's responses indicate that Mr. Denatale, Mojave's attorney, provided Mr. Woodward, Mr. Sutton's attorney with certain information, including FERC orders, however it fails to answer the specific question in this comment which asked why the Draft EIR, the most critical document necessary for adequate review (and which was then circulating for public comment), was not distributed to the Suttons or Mr. Woodward, nor were they informed of any proceedings before the SLC. The Suttons have serious concerns that the Draft EIR proceedings, the Suttons' only meaningful opportunity to comment on the destruction of portions of their property, were concealed from the Suttons. Responses which are not specifically tailored to the comment or question raised are inadequate. Unique concerns must be addressed. Clery v. County of Stanislaus, supra.

2. As indicated in staff's responses, the Suttons request an explanation as to why environmental surveys were

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conducted on January 23, 24 and 25 of 1991. It is obvious that these studies on the CZQ Ranch would not have been conducted in absence of the Suttons' comments. This study alone revealed significant new environmental information, such as the presence of nine raptor nests on the CZQ Ranch alone, where the Draft EIR had indicated no (0) raptor nests along the entire route within California. It is equally obvious that because of the methodology underlying the Draft EIR, most other properties in California have been similarly overlooked and understudied. Please see the attached assessment of Fugro-McClelland West, consultants who accompanied Mojave's consultants on the site visit. It does not take an expert to know that aerial surveys and reading literature are no substitute for site-specific analysis. If this project is progressing to the Commission level for final approval on March 6, 1991, applicant should have conducted comprehensive environmental analysis on the entire pipeline route long before five weeks prior to potential final approval. Under CEQA, the results of these studies are required to be circulated for the public to review and for agency comment. These CEQA procedures are conspicuously and illegally absent.

3. While you have explained the reasons for avoiding El Dorado Alternative B, the responses still do not explain why El Dorado Alternative A (through the Mojave Desert) or C was not utilized as the primary route for the pipeline. As

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indicated in staff's responses, Among others, Alternative C would be 3.3 miles shorter than the Main El Dorado Route, have four fewer miles of potentially unstable slopes and impact 32 fewer acres of soils with poor reclamation potential. If differences between these routes are "so minor that no preference be assigned," then why not use another route that does not impact the valley oaks, Tehachapi Slender Salamander, not to mention the land use conflicts associated with the El Dorado Mainline route? Responses which are not specifically tailored to the comment or question raised are inadequate. Unique concerns must be addressed. Cleary v. County of Stanislaus, supra. Again, the Suttons request a complete, not partial, response tailored to the question, and further request that this information be provided in a Revised Draft EIR to allow public comment and agency review.

Furthermore, staff states that the data in the Draft EIR were specifically prepared to provide detailed site-specific information on biological and cultural resources which were not available in the 1987 FEIR/S. The Suttons request an explanation why no such studies were conducted on their property until late January of 1991 and also whether other properties have been subjected to this piecemeal methodology.

4. The Suttons renew their comments and believe that the Revised Draft EIR must be recirculated. In addition, under Laurel Heights, if impacts associated with the utilization

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of natural gas beyond those discussed in the EIR are reasonably foreseeable (as they are by virtue of the altered project description in the proposed Amendment) these impacts must be addressed. The Suttons request an explanation of these impacts.

Again, as indicated above and below, the Suttons did not receive responses tailored to their comments. CEQA Guidelines Section 15088 requires that comments be responded to in detail, with good faith reasoned analysis. Detailed responses are required to keep "stubborn problems or serious criticisms from being swept under the rug." People v. County of Kern, supra.

5. Literature and map searches are not adequate to address environmental impacts on property. Under CEQA, comprehensive site-specific studies are required even for the most modest development projects in California. The Suttons would like an explanation as to how detailed current biological, hydrological, cultural and paleontological assessments of the property can be accomplished solely through maps, literature and aerial photographs. Notwithstanding the foregoing, the Suttons would like an explanation as to why Oak Flat, a valley of oaks which may represent an extreme taxa for the community was not discovered through staff's methodology. Undoubtedly, the accuracy of these superficial survey methodologies are suspect and should not be relied upon by the Commission in acting on this

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important project. Site-specific work should be done on the Sutton Ranch Reroute, the remaining portion of the route within California, and should be presented in a Revised Draft EIR for public comment and agency review.

Further, staff's responses do not specifically address the Suttons questions. For example, staff's responses do not provide an analysis of the requested studies for issues such as wetlands, streams, sensitive plants, and raptors. Staff's purported methodology of "worst case" scenario assessments has only resulted in outlines of areas that should have been studied but have not been. Therefore, staff, the Commission and the public have no real awareness of impacts. If pipeline construction occurs and significant impacts are found, the ramifications of these impacts will be past the point of public comment and agency review. Deferring environmental assessment to a future date explicitly runs counter to the policy of CEQA; CEQA requires environmental review at the earliest feasible stage in the planning process. Pub. Res. Code § 21003.1, Sundstrom, supra. The EIR is an "alarm bell" whose purpose is to alert the public and its responsible officials to environmental changes before they have reached "ecological points of no return." The Suttons are fearful that if the project is approved, this irreversible momentum will lead to significant environmental impacts which could have been avoided or mitigated.

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6. Staff's response that mitigation measures refer to guidelines of other agencies presumes that no public review of these mitigation measures is warranted. Under CEQA, this is an incorrect presumption. The Suttons renew their comment.

7. Contrary to staff's response, Page C4-5 of the Final EIR states that oaks encountered within the right of way with a trunk diameter greater than 24 inches shall be avoided. In addition, such section states that all construction in the vicinity of oaks shall occur outside of the drip line. To ensure proper evaluation and mitigation of the Sutton Ranch Reroute, the Suttons request an analysis of the current number of oaks which will be impacted and appropriate mitigations.

8. Because the cumulative impacts of oak removal based on the number of trees to be removed is reasonably foreseeable, Staff's answer is nonresponsive. Laurel Heights. If site-specific studies had been conducted and contained in the Draft EIR, this information would have been known. The Suttons renew their comment.

9. The Suttons renew their comment. Driving and field spot checks do not constitute adequate environmental assessment. In addition, new information about the painted monkeyflower, a rare and endangered species, is significant, and, although staff states that this information was omitted, this new information,

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as well as other new information in the Final EIR should be circulated for public review and agency comment.

In addition, the methodology for the biological review of the CZQ Ranch was inappropriate. Please see the attached assessment of Fugro-McClelland West, consultants who accompanied Mojave's consultants on their February 9th and 10th visits to the CZQ Ranch. As indicated in Fugro-McClelland's report, what site-specific environmental review of the CZQ Ranch that has occurred does not meet the standards of CEQA. The Suttons fear that other portions of the pipeline were also analyzed in this defective manner. If more property owners were made aware of the pipeline crossing their properties by personal notice, more careful environmental review would have occurred. The Suttons request that such notice be provided in conjunction with their request for a Revised Draft EIR. Responses to detailed comments with statements similar to the "plan as finally amended should adequately mitigate any adverse effect" as provided here are conclusory and inadequate. Gallegos v. State Board of Forestry, SRPFA.

10. Staff's answer is nonresponsive. The Draft EIR requires a five day survey period for the Tehachapi Slender Salamander which has not yet been conducted. In addition, during times of environmental stress such as drought, organisms will persist in refugia of less than ideal habitat that contain.

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essential elements for completion of their lifecycle (Fugro-McClelland West). There is a canyon on the CZQ which will be crossed by the pipeline which contains all of these necessary elements identified by staff's experts as habitat for the salamander (Fugro-McClelland West). Where objections have been lodged regarding future studies, and requested analysis has not been provided, the Final EIR has been found invalid for inadequate response to comments. EPIC, Inc. v. Johnson, supra. The Suttons request an explanation as to why this five day study has not occurred prior to the proposed final approval of the project.

11. The Suttons renew their comments. The limited scope of staff's and applicant's surveys are hopelessly inadequate for sensitive animals. It appears that only a cursory records search was the basis for the identification of all potentially occurring sensitive animals. In the brief time that Fugro-McClelland West studied the area, a number of concerns surfaced for which the Final EIR provides no documentation. For example, at least four species of migratory bats live in trees that would be removed because of the pipeline. Furthermore, the Final EIR nowhere mentions Tehachapi Pocket Mouse and the Tehachapi Mountain Silverspot Butterfly, a federal candidate for listing as endangered. The Suttons request that a thorough analysis of these sensitive animals be conducted in the

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Revised Draft EIR. Staff's deferral of analysis to future studies limits option for avoidance and mitigation because an alignment has already been approved and adopted. This is in direct contravention of CEQA.

12. Staff indicates nine raptor nests were located on the CZQ Ranch during the January, 1991 survey. This is new information not included in the FEIR. For example, Page 5-6 still indicates that no (0) raptor nests will be impacted in California. This statement is inaccurate. The Suttons request an explanation of the impacts on raptor nests on the rest of the pipeline. Under CEQA, the public has a right to review and comment on these potential impacts, as well as the new information that the staff provided in the response. If nine nests were discovered on one property during a late study in a drought period out of season, how many nests would have been discovered had site-specific study been conducted throughout California?

13. Staff's answer does not address impacts to this valuable habitat, even though there is a current plan to release Condors to reestablish them in the area (Furgo-McClelland West). The Suttons renew their comment.

14. Wetland impacts warrant site-specific review; none was conducted on the CZQ Ranch. Cumulative impacts to wetland habitats must be analyzed by the Commission as lead agency before

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the Final EIR is approved. Such analysis may not be deferred to the Army Corps or CDFG, which will act as responsible agencies. The Suttons renew their comment.

15. Staff's answer is nonresponsive. The Office of Historic Preservation has informed us that Mojave/Kern has yet to initiate Section 106 compliance. The Suttons renew their comment.

16. Staff's answer is nonresponsive; several steep slopes exist on the CZQ Ranch. Deferring determination of types of slope instability and as staff states, rerouting the pipeline to avoid the active slides upon finding them during construction, violates CEQA. Project shaping choices should be made long before actual construction. The Suttons renew their comment.

17. Staff admits that the Final EIR inadequately assesses fault crossings. See also response to Comment 1. The Suttons renew their comment.

18. Staff's answer is nonresponsive, general and addresses only construction impacts on short-term land use, not impacts to long-term land use caused by the pipeline. The Suttons renew their comment.

19. Staff's answer admits that the crossing of Stallion Springs II is prohibited. The Suttons renew their comment.

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20. Staff's comment that land use impacts of the pipeline are negligible are conclusory and inadequate. Gallegos v. State Board of Forestry, supra. The Final EIR merely provides a description of land uses not a discussion of impacts to land uses as required by CEQA. The Suttons renew their comment, particularly in view of the public safety issues discussed above.

21. The Suttons renew their comment; Staff's response is vague. Portions of the CZQ Ranch are zoned residential and do have utility rights of way. In addition, as discussed earlier, critical safety issues, such as setback issues are nowhere addressed in the Final EIR. Indeed, the Final EIR indicates that some houses are going to be within 50 feet of the pipeline.

22. Staff's answers are nonresponsive. The Final EIR merely describes land uses, it does not discuss impacts. The Suttons renew their comment.

23. Staff suggests that routes need not follow existing linear facilities if there is an environmentally preferable alternative. The CZQ Ranch is not an environmentally preferable alternative to any existing linear facilities. The Suttons once again request an answer as to why existing linear facilities were not utilized in their area. Detailed responses are required to keep "stubborn problems or serious criticisms from being swept under the rug." People v. County of Kern,

SUPRA.

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24. Staff's answers are only partially responsive; there are other existing linear facilities in the Tehachapi area which could have been followed. The Suttons renew their comment and request an explanation as to why these linear routes were not followed.

25. Staff's answers are nonresponsive; if additional roads are necessary, their impacts should be analyzed in the EIR prior to, not after, project approval.

26. Staff's answer is not complete; the Construction, Operation and Maintenance Plan was promulgated in February of 1991 and was not subject to public review and comment. The Revised Draft EIR should include this Plan.

27. See Comment 28 below.

28. Staff's answer is nonresponsive; Mr. DeNatale and Mr. Ferguson, lawyers for Mojave were present at a meeting held at the offices of Latham & Watkins wherein three Mojave agents indicated that the right of way would be 200 to 300 feet on portions of the CZQ Ranch. Since the project applicants specifically stated that enlarged right-of-ways would be required, such right-of-way is reasonably foreseeable (Laurel Heights) and the Suttons hereby request that the project description be appropriately modified and that the right-of-way issue be properly analyzed in the Revised Draft EIR.

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29. Staff's answer is nonresponsive as it nowhere discusses the non-bypass agreements. Responses which are not specifically tailored to the comment or question raised are inadequate. Unique concerns must be addressed. Clery v. County of Stanislaus, supra.

30. Staff's answer is nonresponsive, a Revised Draft EIR is warranted to address the environmental impacts of the non-EOR market delivery points. FERC's monitoring the requirements for construction of new delivery lines is inadequate and violative of CEQA. The public has a right to review and comment in a Revised Draft EIR and impacted landowners should be notified of the whereabouts of these new delivery lines. Project approval should be withheld until a project definition adequate for the purposes of assessing environmental impacts is prepared.

31. Staff's answer is nonresponsive. See enclosed biological assessment. In addition, no-site specific biological or cultural specific studies were done on the CZQ Ranch until the end of January, 1991. The Suttons renew their comment.

32. Staff's answer is nonresponsive, particularly in view of the apparent total lack of on-site study throughout the route of the pipeline in California. For example, as to raptors alone, if 9 raptor nests were discovered on the CZQ Ranch alone after a belated site visit in response to the Suttons comments, what is the foreseeable cumulative impact to raptors ~~all along~~

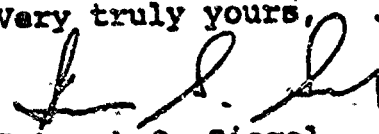
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the pipeline route? The Final EIR further admits that 10% of the pipeline has yet to be surveyed at all. This is unacceptable. Gallegos, SUPER.

CONCLUSION

The Suttons have submitted these additional comments in the hopes of building the most comprehensive and thorough data base for a decision that will have a major effect on the environment and public safety of the citizens of the State of California. The Commission's modification of the Project to incorporate the Sutton Ranch Reroute as reflected in the Final EIR is a first step towards responsible compliance with CEQA, but many other issues remain to be addressed---particularly the critical issue of public safety. Until adequate documentation addressing such issues is prepared and circulated for public review, the Project should not be approved.

Very truly yours,



Deborah S. Siegel
of LATHAM & WATKINS

Enclosure

cc: Dan Lundgren, Esq., California Attorney General
(w/enclosure; via Federal Express)
Mojave Pipeline Operating Company
(w/enclosure; via telecopy)

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FUGRO-McCLELLAND (WEST), INC.



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Latham & Watkins
Attorneys at Law
633 West Fifth Street, Suite 4000
Los Angeles, California 90071

February 13, 1991

Attention: Ms. Deborah Siegel

Subject: Biological Resources of CZQ Ranch
Summary of Findings, February 9-10 Site Visit

Ms. Siegel:

The purpose of this letter is to provide you and Mr. Robert Sutton the owner of the subject property, with an account of our observations made during the biological reconnaissance of an alternative pipeline route. The new alternative alignment was walked over the course of two days and the project biologists (representing the EIR consultant or the project proponent) were consulted when the opportunity arose. Comments are provided below, grouped according to general topic.

1. Chronology

On Saturday, February 9, Biological Services staff from Fugro-McClelland arrived at the project site (Sasha Road south of Girauda Road) where surveyor's teams, pipeline representatives and biologists were assembled. We introduced ourselves and indicated the reason for our presence, which was to observe the survey and assess whether the information gathered was of appropriate detail. Further, we indicated that we believed that there had been inadequacies in the EIR and that we would serve as a "control" to review biological reports incorporated into environmental documents so that field observations were properly reported. We stated that we had no intention of challenging the expertise of the field biologists, nor did we wish to provide them with guidance on the conduct of their work.

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U.S. operating companies in California, Louisiana, Missouri, and Texas
International operating companies in Australia, Belgium, Brazil, Canada, Germany, Hong Kong, Indonesia, Japan,
Malaysia, The Netherlands, Saudi Arabia, Singapore, United Kingdom, and United Arab Emirates.

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 Ms. Deborah Siegel

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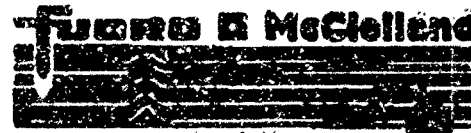
The project biologists (Uptain, Mitchell, Meese) spoke among themselves and some time later informed me that they would drop off a car at the far end of the survey route and return to Sasia Road to commence their survey. This sequence was then altered in that Uptain indicated that he would not be working that day. We were unable to locate Mitchell and/or Meese the remainder of the day, but understand that they walked the eastern portion of the alternative route.

On February 10, Meese and Mitchell were not seen at the project site, but we were informed by the pipeline representative (Sokol) that they would be surveying the extreme western end of CZQ Ranch and continuing off the ranch onto adjacent lands. Hansen and Uptain (herpetologist and wildlife biologist) started their survey near Sasia Road. During the time it took to park a car at Jack Springs and return to the Sasia Road access to CZQ Ranch, the survey team (Uptain, Hansen, Sokol) had progressed approximately two miles along the southern ranch boundary. Fugro-McClelland staff, along with Mr. and Mrs. Sutton located the survey team on the slope leading into an unnamed canyon above the terminus of Jack Springs Road.

On the eastern slope of the canyon, Hansen and Uptain left the alignment identified by flagging and proceeded to the head of the canyon (northward). The biologists did not respond to calls from Sokol for approximately one-half hour, although they were apparently within earshot, according to Mrs. Sutton who observed them (and could hear Sokol) in the area. When they finally responded, Sokol requested that they return to the canyon to speak with Mr. Sutton and his representatives (Fugro-McClelland). Mr. Sutton became upset because the biologists were not surveying the identified alignment and expressed his dissatisfaction to Sokol and the biologists. To resolve the situation, the biologists descended into the canyon and briefly examined conditions in the drainage for suitable habitat for the Teliachapl slender salamander. Following this, the biologists continued westward off the Suttons' property and we terminated our conduct of field observations.

2. Adequacy of Surveys

As representatives of the landowner, our greatest concern is for the level of detail to which the route surveys were conducted. It appears that the botanist, wildlife biologist and herpetologist were surveying only for specific taxa (species or subspecies of plants or animals).



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or, identifying areas that constituted the "best" habitat for these taxa. Our conclusion that surveys were being conducted with this extremely limited focus was corroborated in conversations with Uptain and Hansen. Concerns regarding specific resources are itemized below:

- Tehachapi slender salamander. The most striking fact concerning this organism is the near complete lack of documentation of populations, distribution and habitat requirements. The primary source of information on this taxon remains the Peterson Field Guide to Reptiles and Amphibians. As such the majority of information on the life history and requirements is anecdotal, largely derived from the few persons who have conducted research on them, including Mr. Hansen. Mr. Hansen indicated in the field that he estimated the best habitat for this species was located off the project site in the understory of a mixed woodland largely dominated by buckeye (*Aesculus californica*), on north-facing, shaded slopes trending into the canyon. When queried on the rationale for determining "best" habitat, the response was that this is where people had looked for the organism and found it. In addition, it was noted that these slopes contained sufficient area of mesic habitat that even with climatic fluctuation, the species could persist in reduced numbers. Our response to this is that these slopes were not surveyed except by binoculars from a distance of at least 200 meters and conditions at the surface could not be evaluated. For example, we do not know soil moisture or leaf litter accumulation on the slope.

If we assume (and we do not) that the slopes identified by Hansen do in fact constitute the best and largest habitat in the area, it still does not preclude the use of other areas, the canyon north of Jack Springs for example, by this animal. It is a fact that during times of environmental stress such as drought, organisms will persist in refugia of less than ideal habitat that contain essential elements for completion of their life cycle. The canyon under consideration for the alternative pipeline route contains all of the elements identified by Hansen and others consulted as habitat features for this salamander. Because of the size of the drainage, moisture still persists here on lower slopes although the general area is in prolonged drought conditions.

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We believe that the proposed alignment crossing this drainage could result in significant losses of individuals and habitat for the Tehachapi slender salamander. The full extent of this impact should be determined and appropriate mitigation developed before any pipeline alignment is adopted as the chosen route.

- Additional Sensitive Animal Taxa. The limited scope of the surveys is hopelessly inadequate with regard to sensitive animals. It appears that only a cursory records search was the basis for the identification of all potentially occurring sensitive animals. In the brief time we have had to study this area a number of concerns surfaced for which the environmental documentation provided no answers. These include:

- At least four species of migratory bats that would likely utilize the area, including snags or hollow, living trees that would be removed as a consequence of the project;
- The Tehachapi pocket mouse, that is known to be of scattered distribution between Tehachapi Pass to the east and Mt. Pinos to the southwest of the proposed alignment;
- The Tehachapi Mountain silverspot butterfly (*Speyeria egleis tehachapina*) a federal candidate for listing as endangered. Almost nothing is known of this taxon except from older collections.

We believe that a thorough analysis of these and other potentially occurring sensitive taxa must be conducted prior to the adoption of any alignment for the proposed pipeline.

- Sensitive Plant Species. The speed with which the survey was conducted would imply that no effort was made to compile a comprehensive inventory, or even a detailed description of plant community types. According to Uptain, the focus of the survey by Diane Mitchell was essentially exclusively on the Calico monkeyflower an annual of rocky areas and dry slopes in the Tehachapi range. This species is



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Ms. Deborah Slagel

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unlikely to be visible at this time, and even dead, standing material may not be in evidence owing to the prolonged drought.

The potential exists for many plants of varying sensitivity to occur in the area. The Tehachapi range is a zone of dynamic convergence for plant communities between the Sierra Nevada to the north and the transverse ranges to the south. In addition, plant species from the Mojave Desert and the San Joaquin Valley occur here. To conclude that there are no sensitivities other than one for which records exist does not serve the process of impact analysis. Very little research has been conducted in this area and even less has been published. Although the same concerns would apply to a number of alternative routes through the general area, we believe that it is not appropriate to approve this route or any route across the Suttons' property without extended studies over the appropriate seasons to document the flora of the route and evaluate impacts to sensitive plant species.

3. Conclusions

After review of the documentation for this project and assessment of the focus and level of detail for the surveys conducted, it is our conclusion that environmental documentation is not in compliance with the letter or intent of CEQA. The lack of effort to document and assess impacts to the resources on CZQ Ranch and the deferral of site-specific evaluation to later studies is inappropriate and not supportable. The deferral to future studies would not occur until such time as an alignment is adopted and options for avoidance and mitigation are limited.

We believe that the issues raised in our previous letter have not been resolved. Further, we believe that no discretionary action on this proposed pipeline should be taken until the full extent of biological impacts is assessed and precise mitigation is developed with complete assurance of implementation.

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Ms. Deborah Siegel

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Thank you for the opportunity to be of service regarding this project.

Sincerely,

FUGRO-McCLELLAND (WEST), INC.

A handwritten signature in cursive script, appearing to read "Tim".

Tim Laughlin
Natural Resources Program Manager

cc: Mr. and Mrs. Robert Sutton

PHILIP A. SMITH
City Attorney
BOYLE ENGINEERING
City Engineer
TEX R. SHEHAN
Public Works Superintendent
A. A. ANTHONY
Fire Chief
CHRISTOPHER GRIMES
City Planner
ROSE B. CORD-FRENG
City Treasurer



PHILIP A. SMITH
Mayor
LA VONNE D. BOOTH
Councilwoman
ALFRED M. DAMIAN
Councilman
KELCY OWENS
Councilman
WILLIAM BLAIR
Councilman
LAWRENCE M. COOK
City Administrator
KATHRYN L. KOSKI
City Clerk

February 27, 1991

State of California
State Lands Commission
Att: Mary Griggs
1807- 13th Street
Sacramento, California
95814

Dear Ms. Griggs

File: Pipelines SCH 90021170

I borrowed a copy of the Final EIR for the Mojave-Kern River Pipeline Project and have several concerns regarding this project. The City did not receive any information regarding this project from the State Clearinghouse or your agency during the early environmental analysis of the project therefore the EIR does not adequately address the concerns of this City.

The EIR does not include any analysis regarding risk to human life as a result of a pipeline accident. The risk of upset from pipeline accidents is very clear following the pipeline explosion in San Bernardino County. The pipeline route does pass through numerous residential parcels in the Sphere of Influence of this City. The pipeline route is very close to the City water reservoir.

Currently this City is processing an application for development of a 478 unit residential subdivision which appears to straddle the pipeline route. The EIR does not address the risk associated with this subdivision.

I have not received accurate maps of the pipeline route through the Sphere of Influence of this City. The State mandated Safety Element of the General Plan of the City of Tehachapi must address this pipeline therefore exact pipeline routes must be provided. I request that your agency provide accurate legal descriptions of the pipeline route through Township 32 South, Range 33 East, Mount Diablo Base and Meridian, County of Kern, State of California. If you are unable to provide accurate legal descriptions then a map prepared at a scale of 1" to 500" is requested.

CALENDAR PAGE _____
MINUTE PAGE 654

115 SOUTH ROBINSON STREET
MAILING: P. O. BOX 668

TEHACHAPI, CALIFORNIA 93561-0668
TEHACHAPI, CALIFORNIA 93581-0668

(805) 822-2200
FAX (805) 822-8559

State of California
State Lands Commission
February 27, 1991
Page 2

In the future when your agency is involved in land use planning activities within the Tehachapi Valley please notify the City as soon as possible so that concerns of the City may be brought to your attention. Please send a copy of the Final EIR to me as well.

Sincerely,

Christopher Grimes

Christopher Grimes
City Planner

cg

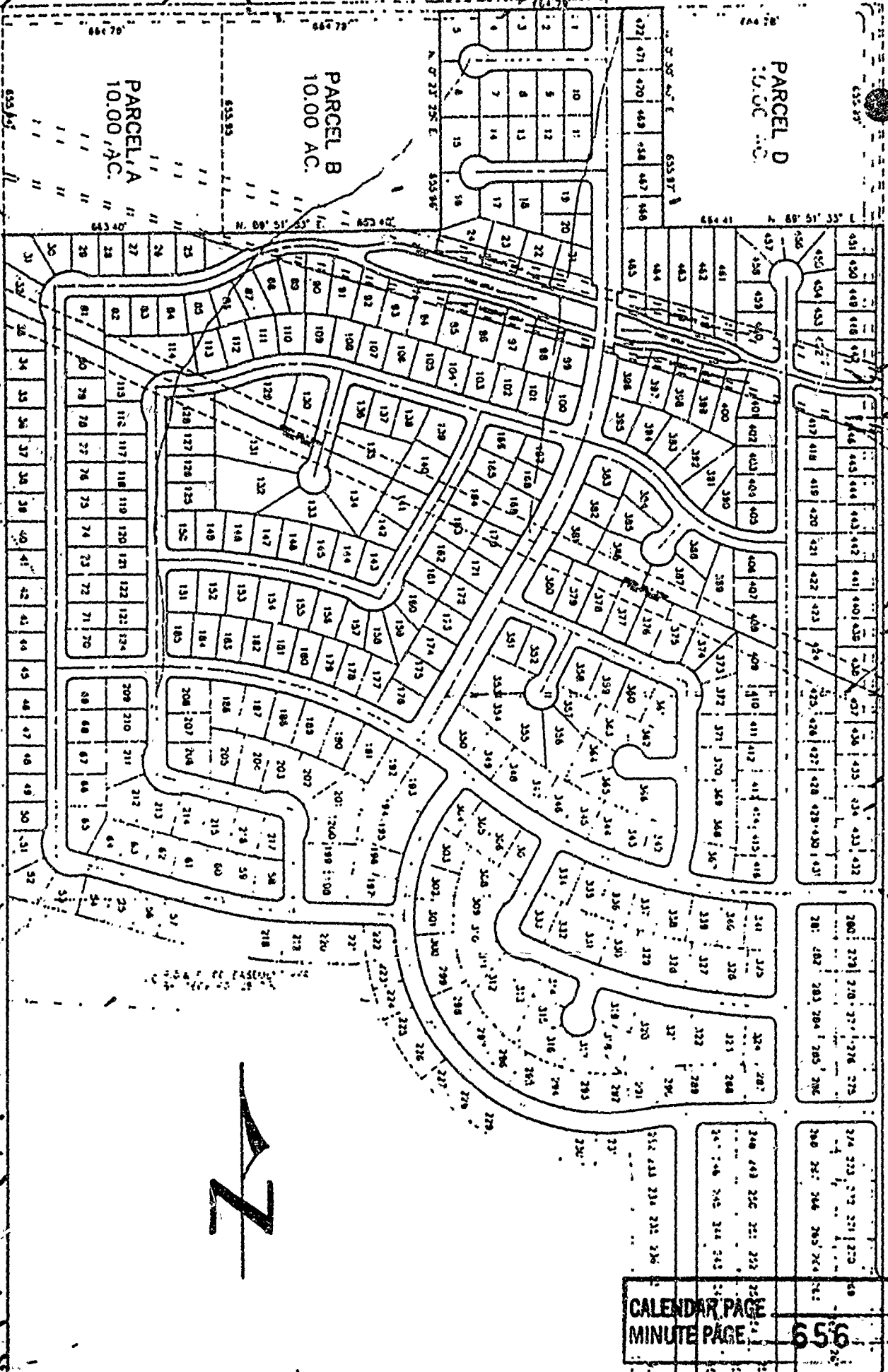
CALENDAR PAGE	
MINUTE PAGE	555

TUCKER RD

PARCEL D
10.00 AC.

PARCEL B
10.00 AC.

PARCEL A
10.00 AC.



P.L. 2077
B.C. 10
P.C. 33

P.L. 2364
B.C. 10
P.C. 107



CALENDAR PAGE	656
MINUTE PAGE	

Neva Claflin
820 River Oaks Drive
Bakersfield, CA 93309
Telephone: 805-398-0857

RECEIVED
FEB 26 1991
STATE LANDS COMMISSION

February 26, 1991

State Lands Commission
1807 13th Street
Sacramento, CA 95814

bkd
Attention: Brenda Duncan

In re: Tract No. K4-084

Dear Ms. Duncan:

I have received notice of public hearing to be held March 6, 1991, of the State Lands Commission. Item No. 22 to be considered at this hearing concerns Mojave Pipeline Company, Kern River Gas Transmission Company and Mojave Pipeline and Kern River Gas Transmission Company.

The aforementioned companies are wanting to place a pipeline on my above referenced tract. I am using this means of bringing to the Commissions my protest of this plan by said companies. Their proposed pipeline construction renders my property almost worthless if they are allowed to build on my property.

Yours truly,

Neva Claflin
Neva Claflin

NC/rf

CALENDAR PAGE _____
MINUTE PAGE 657

Jean Proel
Star Route 1
Box 2575
Tehachapi, Ca
93561

March 4, 1991

State Lands Commission
Mary Griggs
1807 13th St.
Sacramento, Ca. 95814

Reference: Mojave Pipeline Co. Routing

Gentlemen:

The Mojave Pipeline Co. has proposed to construct a natural gas transmission pipeline crossing land in which I have a vested interest. The land is located in the Tehachapi area of California. Please see enclosed map for proposed routing and the preferred (by my family) route. The property ranges from meadow to moderate slope with oak trees. An existing 32" pipeline operated by PG & E crosses the property with a 15' wide easement.

The Mojave Pipeline Co. proposes a route which follows the PG & E easement for only a portion of the way through my property. The deviation of the route from PG & E easement enters steeper terrain and crosses a wooded ridge line which will result in the destruction of approximately 20 oak trees ranging in diameter from 8" to 36". The width of the proposed easement is 50' for the 42" pipeline.

I strongly object to this route through my property because the property is already devalued by a similar pipeline carrying the same product. If the additional capacity is absolutely necessary, the expansion line should follow the exact path of the existing line sharing the easement where possible to minimize damage to the property. The new route will destroy needlessly, about 20 oak trees which are not replaceable in a lifetime. The PG&E route has already cleared the trees for what appears to be adequate width to install another pipeline. The Mojave Pipeline is proposing an easement of 50' with a 100' temporary easement. I do not understand why PG&E can operate with only 15' and Mojave "needs" 50'.

On a more personal side, the proposed route will destroy several exceptional ridge line home sites, with commanding views and mature oak trees. My family has been holding this land as a long term investment for future development. The law allows the pipeline

CALENDAR PAGE	_____
MINUTE PAGE	658

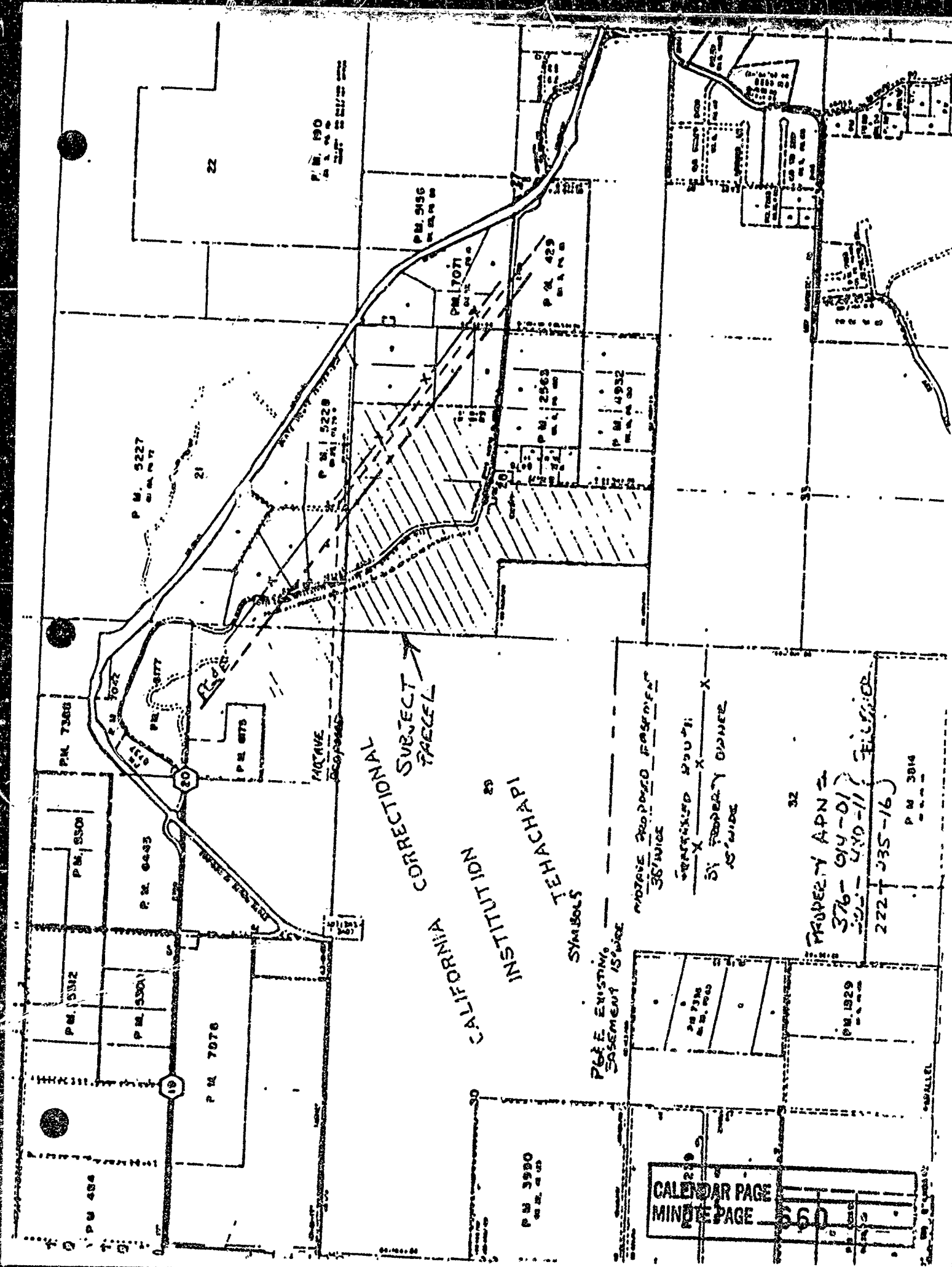
to disregard the intended future use in valuing the worth of the take. Now the value is based on the present use which has the appearance of being somewhat unfair to those who are invested in this property for the long term. Those lovely sites will be acquired at acreage price since they are not parceled out.

The future use of the land will require the construction of access roads which will cross the pipeline. The Mojave Pipeline is proposing a depth of cover to be 36". This depth will no doubt cause extra expense for the construction of access roads in a future development. I believe that the Mojave Pipeline Co. should cover their pipeline with 60" to minimize my future expense in dealing with this unwanted intrusion and for maximum safety for those using this land.

My property lies in a natural pass which will no doubt be the target for future transmission lines and pipelines. If each line is allowed to consume a 50' separate easement without paralleling its predecessors the property will become worthless. It would seem that this is the time to require these projects to be coordinated in an effort to minimize the losses to the public in selecting the routes.

Please consider my objections to the Mojave Pipeline Co. proposed route and assist in minimizing the impact of this project upon me and my family.

Sincerely, *Jean Paul*
For Marie Jeanne Pellesier



SUBJECT PARCEL

CALIFORNIA CORRECTIONAL INSTITUTION

TETHACHAPI

EXISTING BASEMENT SPACE

PROPOSED BASEMENT SPACE

SYMBOLS

CALENDAR PAGE
MINUTE PAGE 360

PROPERTY APN =
376-014-01
222-035-16

P.M. 3814

P.M. 7388

P.M. 5227

22

P.M. 190

P.M. 5156

P.M. 17071

P.M. 2563

P.M. 4932

P.M. 5229

P.M. 7042

P.M. 8173

P.M. 5142

P.M. 5301

P.M. 7076

P.M. 6443

P.M. 484

P.M. 3980

P.M. 7316

P.M. 1929

32

PARALLEL

MINUTE ITEM

This Calendar Item No. 22
was approved as Minute Item
No. 22 by the State Lands
Commission by a vote of 2
0 at its 3/16/91
meeting.

CALENDAR ITEM

22

A 33, 34, 61

S 16, 25

PRC 7510
PRC 7511
PRC 7512
PRC 7515

03/06/91 PRC 7508
W 23658 PRC 7509
W 23621 PRC 7516
Fong
Griggs
Meier
Small

**CERTIFY AN ENVIRONMENTAL IMPACT REPORT,
APPROVE LEASES FOR RIGHT-OF-WAY USE AND INDUSTRIAL USE,
APPROVE DELEGATION OF AUTHORITY**

APPLICANTS:

Kern River Gas Transmission Company,
a General Partnership
P.O. Box 58900
Salt Lake City, Utah 84158-0900

Mojave Pipeline Company, a General Partnership
P. O. Box 1492
El Paso, Texas 79978

Mojave Pipeline Company, a General Partnership and Kern
River Gas Transmission Company, a General Partnership, as
co-lessees
P. O. Box 1492
El Paso, Texas 79978

AREA, TYPE LAND AND LOCATION:

Three (3) parcels of school land and two (2) parcels of
sovereign land.

LAND USE:

Installation, operation, and maintenance of a natural gas
pipeline system and the installation, operation, and
maintenance of metering and maintenance stations.

TERMS OF PROPOSED LEASES:

The proposed pipeline project will require the issuance of
the following five leases:

- (1) Kern River Gas Transmission Company lease of school
lands located in San Bernardino County.

CALENDAR ITEM NO. 22 (CONT'D)

- (2) Mojave Pipeline Company lease of sovereign lands at the Colorado River near Topock, Arizona.
- (3) Mojave Pipeline Company lease of school lands at Daggett located east of Barstow.
- (4) Mojave Pipeline Company and Kern River Gas Transmission Company as co-lessees of school lands located near Daggett.
- (5) Mojave Pipeline Company and Kern River Gas Transmission Company as co-lessees of sovereign lands at the Kern River in the city of Bakersfield.

Initial period:

Thirty (30) years beginning March 7, 1991.

Surety bond:

\$5,000,000 for each lease, to be reduced to \$50,000 after full compliance with all mitigation measures and compensation agreements.

Public liability insurance:

Combined single limit coverage of \$5,000,000 during construction to be reduced to \$1,000,000 after the completion of construction.

Special Lease Provisions:

1. The following conditions have been added to the Lease and the lease shall be found to be in default if any are not met:

(a) Lessee shall comply with all mitigation measures and the mitigation monitoring plan adopted by the Commission or any other governmental agency pursuant to the CEQA.

(b) Lessee shall enter into a legally binding agreement with the Department of Fish and Game prior to the start of construction which requires acquisition and transfer to the Department of Fish and Game, or to an agency or land conservation organization acceptable

CALENDAR ITEM NO. 22 (CONT'D)

to the Department of Fish and Game of desert tortoise habitat in the eastern Mojave desert, Mojave ground squirrel habitat in the western Mojave desert, and habitat for listed wildlife species in the San Joaquin Valley.

(c) Lessee shall deposit with the Department of Fish and Game letters of credit for the acquisition of compensation lands and funds for habitat improvement and long term maintenance on the acquired lands.

(d) Lessee shall comply with the approved Cultural Resources Management Plan and Historic Properties Treatment Plan.

2. No construction will be allowed until the Habitat Mitigation and Acquisition agreement with the Department of Fish and Game, Bureau of Land Management and the State Lands Commission has been executed by all the parties involved.
4. Lessee shall provide Lessor with "as-built" plans within one year after completion of construction of the authorized improvements.

CONSIDERATION:

KERN (School Lands): \$ 8,300 per annum; with the State reserving the right to fix a different rental on each fifth anniversary of the lease.

MOJAVE (Sovereign Lands): \$190 per annum; with the State reserving the right to fix a different rental on each fifth anniversary of the lease.

MOJAVE (School Lands): \$250 per annum; with the State reserving the right to fix a different rental on each fifth anniversary of the lease.

KERN/MOJAVE (Sovereign Lands): \$230 per annum; with the State reserving the right to fix a different rental on each fifth anniversary of the lease.

CALENDAR ITEM NO. 22 (CONT'D)

KERN/MOJAVE (School Lands): \$556 per annum; with the State reserving the right to fix a different rental on each fifth anniversary of the lease.

BASIS FOR CONSIDERATION:

Pursuant to 2 Cal. Code Reg. 2003.

APPLICANT STATUS:

Applicants are common carriers.

PREREQUISITE CONDITIONS, FEES AND EXPENSES:

Filing fee and environmental costs have been received.

STATUTORY AND OTHER REFERENCES:

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

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

AB 884:

MOJAVE - 03-18-91

KERN - 12-17-91

OTHER PERTINENT INFORMATION:

1. The proposed project will transport natural gas supplies from various sources outside of California to the Bakersfield, California, area for use in enhanced oil recovery (EOR) and non-EOR projects. Producers of crude oil in the San Joaquin Valley would use the natural gas as boiler fuel to create steam which would be injected into the oil fields to produce crude oil not recoverable by primary methods. The producers currently use crude oil and a limited amount of natural gas for steam generation.

The project proponents, Mojave Pipeline Company (MOJAVE) and Kern River Gas Transmission Company (KERN RIVER), have proposed to construct and operate a new interstate system made up of components of both systems which they had previously proposed individually. This proposal would result in a merger between MOJAVE and KERN RIVER into a joined project with common facilities that both applicants would use to transport natural gas to Kern County.

CALENDAR ITEM NO. 22 (CONT'D)

The Federal Energy Regulatory Commission (FERC) as the Federal Lead Agency under the National Environmental Policy Act (NEPA) has already approved and certified the pipeline routes for the KERN and MOJAVE projects.

The proposed Mojave facilities consist of approximately 159 miles of 30-inch diameter pipeline extending from the area near Topock, Arizona to the point of interconnection with the KERN RIVER facilities near Daggett, California.

KERN RIVER is constructing a 676 mile long 36-inch diameter pipeline from Wyoming to the interconnection point at Daggett.

The jointly owned facilities consist of approximately 225 miles of 42-inch diameter pipeline extending westerly from the Daggett interconnection point to the Bakersfield area.

The State lands involved in this proposed project consist of crossings at the Colorado and Kern Rivers, 1.92 miles of right of way on three parcels of state school lands, and a metering and maintenance facility approximately 3 acres in size at Daggett.

2. Although staff is recommending the issuance of leases for the pipeline rights of way and the metering station, staff is currently negotiating the sales of easements across the school land parcels to the pipeline companies. Staff also proposes to sell in fee the school land parcel occupied by the metering stations at the interconnection point. When staff and the pipeline companies agree upon suitable terms for these sales, staff will return to the Commission for its approval.

The Commission, as the CEQA Lead Agency, is required to monitor the lessee's compliance with the mitigation measures. The FERC has also requested the SLC to monitor the applicant's compliance with environmental mitigation measures required by the FERC. Currently,

CALENDAR ITEM NO. 22 (CONT'D)

the Habitat Mitigation and Acquisition agreements are being finalized with the pipeline companies, the Department of Fish and Game, and the Bureau of Land Management. Staff is requesting authority from the Commission for a delegation of authority for the Executive Officer to enter into the Habitat Mitigation/Acquisition agreements. Being a signatory to the Habitat Mitigation and Acquisition Agreements will allow staff to coordinate its monitoring activities associated with construction and post construction with the Department of Fish and Game and the Bureau of Land Management.

Pursuant to the Habitat Mitigation/Acquisition Plan, the pipeline companies will be required to acquire desert tortoise habitat to compensate for the related, unavoidable impacts of their proposed project. Staff has identified numerous State School Land parcels as being located in areas of high density desert tortoise habitat. As indicated previously, staff is negotiating with the pipeline companies for the sales of the school land parcels having desert tortoise habitat. Additionally, staff is in consultation with the Department of Fish and Game to determine which of these parcels will be acceptable for acquisition pursuant to the Habitat Mitigation/Acquisition Plan. Upon identification of such school land parcels and upon agreement with the pipeline companies, staff will present the terms of the sale to the Commission for consideration and request approval of the sale, and issuance of patents in conformance with all applicable laws, rules, and regulations. The monies to be received from these sales would be deposited into the School Land Bank Fund to benefit the State Teachers Retirement System (STRS). It is anticipated that negotiations with the pipeline companies will benefit both the applicants and the STRS.

3. History of Environmental Document Preparation

The document discussed below is a Joint EIR/EIS prepared by the Federal Energy Regulatory Commission (FERC) pursuant to the National Environmental Policy

Act (NEPA) and the State Lands Commission (SLC) pursuant to California Environmental Quality Act (CEQA). The required Notice of Preparation (NOP) dated August 25, 1985 was sent, as specified in the CEQA Guidelines, to responsible agencies and other interested federal, state and local agencies, and jurisdictions.

During February, 1986, six scoping meetings were held in cities in the general vicinity of the proposed pipeline route, in California and the other affected states. These meetings were used to identify major issues and concerns. Comments were received through the NOP process and through these scoping meetings and were subsequently addressed in the Draft EIR/EIS (DEIR/EIS).

On January 23, 1987, copies of the DEIR/EIS were submitted to the State Clearinghouse (OPR). Approximately thirteen hundred copies of the document were mailed to responsible agencies, local, State and federal agencies, environmental groups, and interested parties.

The comment period for the DEIR/EIS ended April 24, 1987. Public meetings were held during the week of March 23, 1987 in four locations both within and without California along the proposed pipeline routes.

All comments to the document, both in letter form and by written and/or verbal testimony at the public meetings, are addressed in the Final EIR/EIS (FEIR/EIS), which was distributed on December 18, 1987.

The FEIR/EIS was supplemented in 1988 to include information associated with the inclusion of the Wyoming-California Pipeline Project (WYCAL) into the proceedings of both the SLC and the FERC. FERC and SLC issued a Notice of Intent/Notice of Preparation to supplement the FEIR/EIS on December 14, 1987. The Supplement primarily addressed areas in Wyoming, Utah, and Nevada. Scoping meetings were held out-of-state.

CALENDAR ITEM NO. 22 (CONT'D)

The Draft Supplement was released on July 29, 1988. Public meetings were held out of state in August, 1988. The Final Supplement was issued on October 3, 1988.

The SLC prepared another NOP on November 7, 1989 to announce preparation of a Joint Environmental Amendment/Assessment to analyze additionally proposed project changes to the FEIR/EIS projects. This NOP resulted in the preparation of the FERC Environmental Assessment and the SLC Amendment. The Draft Amendment was released on December 4, 1990 and the Final Amendment released on February 18, 1991.

4. This activity involves lands identified as possessing significant environmental values pursuant to P.R.C. 6370, et seq. Based upon the staff's consultation with the persons nominating such lands and through the CEQA review process, it is the staff's opinion that the project, as proposed, is consistent with its use classification.
5. As indicated, pursuant to the Commission's delegation of authority and the State CEQA Guidelines (14 Cal. Code Regs. 15025), the staff has caused to be prepared an EIR identified as EIR No. 400, State Clearinghouse No. 85081912. Such EIR was prepared and circulated for public review pursuant to the provisions of the CEQA.

APPROVALS OBTAINED:

Federal Energy Regulatory Commission certification.

FURTHER APPROVALS REQUIRED:

Bureau of Land Management, Bureau of Indian Affairs, United States Air Force, United States Army Corps of Engineers, Environmental Protection Agency, Department of Fish and Game, Department of Transportation, Air Resources Board, State Water Resources Control Board, Department of Water Resources, Reclamation Board, and Office of Historic Preservation.

CALENDAR ITEM NO. 22 (CONT'D)

EXHIBITS:

- A-1 through A-3.
Land Description and Location maps for Kern River Gas Transmission Company lease of school lands located in San Bernardino County.
- B-1 - B-2.
Land Description and Location maps for Mojave Pipeline Company lease of sovereign lands at the Colorado River near Topock, Arizona.
- C-1 - C-2.
Land Description and Location maps for Mojave Pipeline Company lease of school lands at Daggett, located east of Barstow.
- D-1 - D-2.
Land Description and Location maps for Mojave Pipeline Company and Kern River Gas Transmission Company as co-lessees of school lands at Daggett.
- E-1 - E-2.
Land Description and Location maps for Mojave Pipeline Company and Kern River Gas Transmission Company as co-lessees of sovereign lands at the Kern River in Bakersfield.
- F. EIR/EIS Executive Summary
- G. CEQA Findings
- H. Mitigation Monitoring and Reporting Plan

IT IS RECOMMENDED THAT THE COMMISSION:

1. CERTIFY THAT AN EIR, NO. 400, STATE CLEARINGHOUSE NO. 85081912, 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 CEQA FINDINGS ATTACHED AS EXHIBIT "G".

3. ADOPT THE FOLLOWING STATEMENT OF OVERRIDING CONSIDERATIONS:

STATEMENT OF OVERRIDING CONSIDERATIONS

THE CALIFORNIA STATE LANDS COMMISSION ADOPTS THIS STATEMENT OF OVERRIDING CONSIDERATIONS WITH RESPECT TO THE RESIDUAL, SIGNIFICANT IMPACTS REMAINING AFTER THE APPLICATION OF ALL FEASIBLE MITIGATION AS IDENTIFIED IN THE EIR, SPECIFICALLY THOSE IMPACTS ASSOCIATED WITH SOILS, VEGETATION AND WILDLIFE.

THE COMMISSION HEREBY FINDS THAT THE PROJECTS WILL PROVIDE NUMEROUS BENEFITS TO THE STATE. THESE BENEFITS INCLUDE A REDUCTION IN AIR QUALITY IMPACTS IN THE KERN COUNTY AIR BASIN AND ECONOMIC BENEFITS TO SAN BERNARDINO COUNTY DURING THE CONSTRUCTION PHASES OF THE PROJECT. THE MAJOR BENEFITS WOULD OCCUR WITH REGARD TO THE AVAILABILITY OF NATURAL GAS TO THE ENHANCED OIL RECOVERY (EOR) OPERATORS IN THE SOUTHERN SAN JOAQUIN VALLEY. THE ADDITION OF NEW INTERSTATE NATURAL GAS SUPPLIES WILL ALLEVIATE WHAT THE EOR OPERATORS PERCEIVE AS THREE BASIC FLAWS WITH THE CALIFORNIA GAS DISTRIBUTION COMPANIES. THESE FLAWS ARE: 1) LOW PRIORITY OF SERVICE; WITH THE EOR MARKET OF THE LOWEST PRIORITY (SUBJECT TO FIRST CURTAILMENT) AND SUBJECT TO INTERRUPTION OR DISCONTINUANCE WITH LITTLE OR NO NOTICE; 2) THE SHORT-TERM NATURE OF THE EXISTING RATES, WITH RATE SUBJECT TO MONTH-TO MONTH CHANGE YET OPERATIONS ARE DEPENDENT UPON LONG-TERM CAPITAL COMMITMENT AND EQUIPMENT INSTALLATION; AND 3) CURRENT RATES WERE ONLY marginally COMPETITIVE. BOTH MOJAVE AND KERN RIVER HAVE INDICATED THAT THEY CAN FULFILL THE REQUIREMENTS OF THE EOR PRODUCERS BY PROVIDING A DEDICATED, NON-INTERUPTABLE, AND FIRM TRANSPORTATION SERVICE AT A COST COMPETITIVE PRICE. THE PROOF OF THIS LIES IN THE FACT THAT THE FULL CAPACITY OF BOTH THE KERN RIVER AND MOJAVE PIPELINES IS COMMITTED TO SUCH SERVICE.

THE CALIFORNIA ENERGY COMMISSION (CEC), IN ITS BIENNIAL REPORT ENTITLED CALIFORNIA'S ENERGY OUTLOOK, EMPHASIZES THAT ONE OF THE KEY POLICY GOALS IN CALIFORNIA IS TO INCREASE COMPETITION IN THE PROVISION OF ENERGY TO CALIFORNIA CUSTOMERS. THE REPORT SPECIFICALLY RECOMMENDS THAT MARKET FORCES SHOULD BE ALLOWED TO DETERMINE WHETHER AN INTERSTATE

PIPELINE BE BUILT TO SERVE EOR CUSTOMERS. THE REPORT STATES THAT AN INTERSTATE PIPELINE IN CALIFORNIA WOULD PROVIDE SIGNIFICANT COMPETITION FOR BULK TRANSPORTATION OF NATURAL GAS, WHICH CURRENTLY DOES NOT EXIST IN THE STATE.

FINALLY, A CALIFORNIA PUBLIC UTILITIES COMMISSION (CPUC) INVESTIGATION (1.88-12-0277) AN INTERSTATE GAS CAPACITY BEGAN ON DECEMBER 19, 1988, AND CONCLUDED WITH A DECISION ISSUED ON FEBRUARY 7, 1990, EXPRESSED THE POSITION THAT CALIFORNIA HAS A NEAR-TERM NEED FOR 900 MMCFD OF NEW NATURAL GAS CAPACITY, AND A LONGER-TERM NEED FOR SOMEWHERE BETWEEN 1.6 AND 2.1 BILLION CUBIC FEET PER DAY. (BCFD). NEAR-TERM AND LONG-TERM CORRESPOND TO THE YEARS 1995 AND 2005, RESPECTIVELY. EMBODIED IN THE CPUC'S NEED PROJECTIONS IS AN ACKNOWLEDGEMENT OF THE NEED FOR NEW GAS SUPPLIES FOR AIR QUALITY REASONS TO OFFSET THE NEED FOR BURNING OIL. THE MOJAVE AND KERN RIVER PIPELINE PROJECTS ADDRESS THESE NEEDS WITH MINIMAL ADVERSE ENVIRONMENTAL EFFECTS.

THE COMMISSION FURTHER FINDS THAT ALL MITIGATION MEASURES IDENTIFIED IN THE EIR HAVE BEEN IMPOSED TO THE MAXIMUM EXTENT POSSIBLE TO LESSEN IMPACTS, AND FURTHERMORE FINDS THAT, NO ACTION ALTERNATIVE, NO PROJECT ALTERNATIVE, PGT/PG&E ALTERNATIVE, AND ALTERNATIVE ENERGY SOURCES ARE INFEASIBLE BECAUSE THEY HAVE GREATER ENVIRONMENTAL IMPACTS, DO NOT PROVIDE THE BENEFITS DESCRIBED HEREIN OR ARE SOCIALLY OR ECONOMICALLY INFEASIBLE.

BASED ON THE ABOVE DISCUSSION, THE COMMISSION FINDS THAT THE BENEFITS OF THE PROPOSED PROJECT OUTWEIGH THE UNAVOIDABLE ADVERSE ENVIRONMENTAL EFFECTS AND FINDS THAT SUCH RESIDUAL EFFECTS ARE CONSIDERED ACCEPTABLE.

4. ADOPT, PURSUANT TO SECTION 21081.6 OF THE P.R.C., THE MONITORING PROGRAM CONTAINED IN EXHIBIT "H", FOR THE PROJECT TO INSURE COMPLIANCE WITH THE REQUIRED MITIGATION MEASURES.
5. FIND THAT THIS ACTIVITY IS CONSISTENT WITH THE USE CLASSIFICATION DESIGNATED FOR THE LAND PURSUANT TO P.R.C. 6370, ET SEQ.

6. AUTHORIZE THE DELEGATION OF AUTHORITY TO THE EXECUTIVE OFFICER TO EXECUTE, ON BEHALF OF THE STATE LANDS COMMISSION, THE HABITAT MITIGATION AND ACQUISITION AGREEMENTS WITH THE DEPARTMENT OF FISH AND GAME, BUREAU OF LAND MANAGEMENT, KERN RIVER GAS TRANSMISSION COMPANY, AND MOJAVE PIPELINE COMPANY.
7. AUTHORIZE ISSUANCE OF THE FOLLOWING LEASES:

TO KERN RIVER TRANSMISSION COMPANY OF A GENERAL LEASE - INDUSTRIAL USE ON STATE SCHOOL LANDS; FOR A 30-YEAR TERM BEGINNING MARCH 7, 1991; IN CONSIDERATION OF ANNUAL RENTAL IN THE AMOUNT OF \$8,800; WITH THE STATE RESERVING THE RIGHT TO FIX A DIFFERENT RENTAL ON EACH FIFTH ANNIVERSARY OF THE LEASE; PROVISION OF A \$5,000,000 SURETY BOND TO BE REDUCED TO \$50,000 AFTER ALL MITIGATION MEASURES ARE CARRIED OUT AND COMPLIED WITH; PROVISION OF PUBLIC LIABILITY INSURANCE FOR COMBINED SINGLE LIMIT COVERAGE OF \$5,000,000 DURING CONSTRUCTION TO BE REDUCED TO \$1,000,000 UPON COMPLETION OF CONSTRUCTION; FOR THE INSTALLATION, OPERATION AND MAINTENANCE OF A NATURAL GAS PIPELINE AND THE INSTALLATION, OPERATION AND MAINTENANCE OF A METERING FACILITY ON THE LANDS DESCRIBED ON EXHIBIT "A" ATTACHED AND BY REFERENCE MADE A PART HEREOF.

TO MOJAVE PIPELINE COMPANY OF 1) GENERAL LEASE - RIGHT OF WAY USE FOR SOVEREIGN LANDS AND 2) GENERAL LEASE - RIGHT OF WAY USE FOR SCHOOL LANDS; FOR A 30-YEAR TERM BEGINNING MARCH 7, 1991; IN CONSIDERATION OF ANNUAL RENTAL IN THE AMOUNT OF \$190 FOR THE SOVEREIGN LANDS LEASE AND \$250 FOR THE SCHOOL LANDS LEASE; WITH THE STATE RESERVING THE RIGHT TO FIX A DIFFERENT RENTAL ON EACH FIFTH ANNIVERSARY OF THE LEASE; PROVISION OF A \$5,000,000 SURETY BOND TO BE REDUCED TO \$50,000 AFTER ALL MITIGATION MEASURES ARE CARRIED OUT AND COMPLIED WITH; PROVISION OF PUBLIC LIABILITY INSURANCE FOR COMBINED SINGLE LIMIT COVERAGE OF \$5,000,000 DURING CONSTRUCTION TO REDUCED TO \$1,000,000 UPON COMPLETION OF CONSTRUCTION; FOR THE INSTALLATION, OPERATION AND MAINTENANCE OF A NATURAL GAS PIPELINE AND THE INSTALLATION, OPERATION AND MAINTENANCE OF A METERING STATION ON THE LANDS DESCRIBED ON EXHIBITS "B" AND "C", RESPECTIVELY, ATTACHED AND BY REFERENCE MADE A PART HEREOF.

CALENDAR ITEM NO. 2.2 (CONT'D)

TO MOJAVE PIPELINE COMPANY AND KERN RIVER TRANSMISSION COMPANY AS CO-LESSEES OF 1) GENERAL LEASE - RIGHT OF WAY USE FOR SCHOOL LANDS AND 2) GENERAL LEASE - RIGHT OF WAY USE FOR SOVEREIGN LANDS; FOR A 30-YEAR TERM BEGINNING MARCH 7, 1991; IN CONSIDERATION OF ANNUAL RENTAL IN THE AMOUNT OF \$230 FOR THE SOVEREIGN LANDS LEASE AND \$556 FOR THE SCHOOL LANDS LEASE; WITH THE STATE RESERVING THE RIGHT TO FIX A DIFFERENT RENTAL ON EACH FIFTH ANNIVERSARY OF THE LEASE; PROVISION OF A \$5,000,000 SURETY BOND TO BE REDUCED TO \$50,000 AFTER ALL MITIGATION MEASURES ARE CARRIED OUT AND COMPLIED WITH; PROVISION OF PUBLIC LIABILITY INSURANCE FOR COMBINED SINGLE LIMIT COVERAGE OF \$5,000,000 DURING CONSTRUCTION TO REDUCED TO \$1,000,000 UPON COMPLETION OF CONSTRUCTION; FOR THE INSTALLATION, OPERATION AND MAINTENANCE OF A NATURAL GAS PIPELINE AND THE INSTALLATION, OPERATION AND MAINTENANCE OF A METERING STATION ON THE LANDS DESCRIBED ON EXHIBITS "D" AND "E", RESPECTIVELY, ATTACHED AND BY REFERENCE MADE A PART HEREOF.

EXHIBIT "A-1"

W 23658

LAND DESCRIPTION

Those four parcels of state-owned land situated in San Bernardino County, California, more particularly described as follows:

Parcel 1

COMMENCING at the southwest corner of Section 23, T9N, R1E, SBM; thence along the section line between Sections 23 and 26, N 89° 48' 10" E, 1813.31 feet; thence leaving said section line N 08° 54' 48" E, 15.61 feet to the POINT OF BEGINNING; thence N 08° 54' 48" E, 235.0 feet; thence S 81° 05' 12" E 397.5 feet; thence N 08° 54' 48" E, 298.28 feet to the south right-of-way line of the National Trails Highway; thence S 67° 43' 03" E along said right-of-way line 154.18 feet; thence S 08° 54' 48" W, 262.63 feet; thence S 81° 05' 12" E, 102.5 feet; thence S 08° 54' 48" W 235.0 feet; thence N 81° 05' 12" W, 650.0 feet to the point of beginning.

EXCEPTING THEREFROM any portion lying within Section 26, T9N, R1E, SBM.

ALSO SUBJECT TO a 30 foot right-of-way or easement for the purpose of ingress and egress, lying 15 feet on each side of the following described centerline:

BEGINNING at a point that is N 89° 48' 10" W, 2291.85 feet from the southwest corner of Section 23, T 9 N, R 1 E, SBM; thence N 08° 54' 48" E, 455.30 feet to the south right-of-way line of the National Trails Highway.

Parcel 2

A strip of land 50 feet wide situated in Section 23, T 9 N, R 1 E, SBM, lying 25 feet on each side of the following described centerline:

BEGINNING at a point on the east line of the SW 1/4 of the SE 1/4 of said section, said point being N 60° 26' 13" W, 1545 feet, more or less, from the southeast corner of said section; thence S 82° 13' 22" W, 911.21 feet; thence S 53° 58' 22" W, 878.01 feet; thence N 81° 01' 38" W, 132.00 feet to a point that bears N 84° 51' 51" E, 2222.14 feet, more or less, from the southwest corner of said Section 23, said point being the end of the herein described centerline.

EXCEPTING THEREFROM any portion lying within the National Trails Highway.

CALIFORNIA PAGE	279
ARIZONA PAGE	674

Parcel 3

A strip of land 50 feet wide situated in Section 36, T 14 N, R 6 E, SBM, lying 25 feet on each side of the following described centerline:

BEGINNING at a point on the north line of said Section 36, said point being N 89° 38' 50" E, 2154 feet, more or less, from the northwest corner of said section; thence S 52° 15' 42" W, 227.36 feet; thence S 62° 30' 34" W, 214.00 feet; thence S 73° 13' 47" W, 1610.00 feet; thence N 83° 52' 50" W, 1610.00 feet to a point on the west line of said section that bears S 00° 46' 32" E, 644 feet, more or less, from the northwest corner of said Section 36, said point being the end of the herein described centerline.

EXCEPTING THEREFROM any portion lying within that 13.5 acres described in Patent recorded in Instrument No. 85-112532 in the Official Records of San Bernardino County.

Parcel 4

A strip of land 50 feet wide situated in Section 16, T 17 N, R 14 E, SBM, lying 25 feet on each side of the following described centerline:

BEGINNING at a point on the east line of said Section 16, said point being N 01° 08' 11" W, 2548 feet, more or less, from the southeast corner of said section; thence S 78° 29' 59" W, 5294.27 feet to a point on the west line of said section that bears N 00° 58' 50" W, 1654 feet, more or less, from the southwest corner of said Section 16, said point being the end of the herein described centerline.

EXCEPTING THEREFROM any portion lying within that 24.29 acres described under Parcel 4 in Patent in Intermountain Power Agency recorded in Instrument No. 85-112533 in the Official Records of San Bernardino County.

END OF DESCRIPTION

PREPARED JANUARY, 1991 BY LLB

CALNDAR PAGE	280
MINUTE PAGE	675

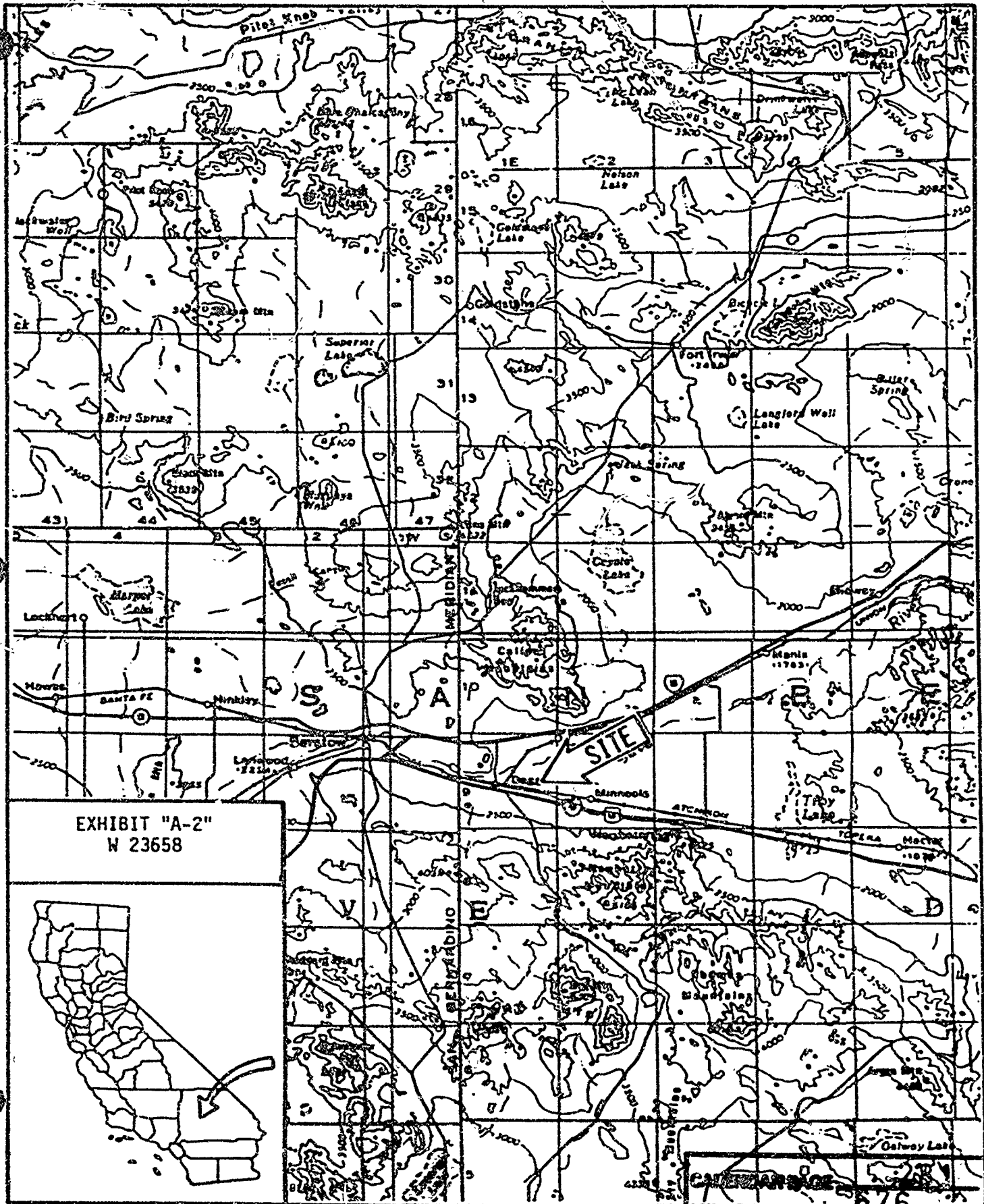


EXHIBIT "A-2"
W 23658



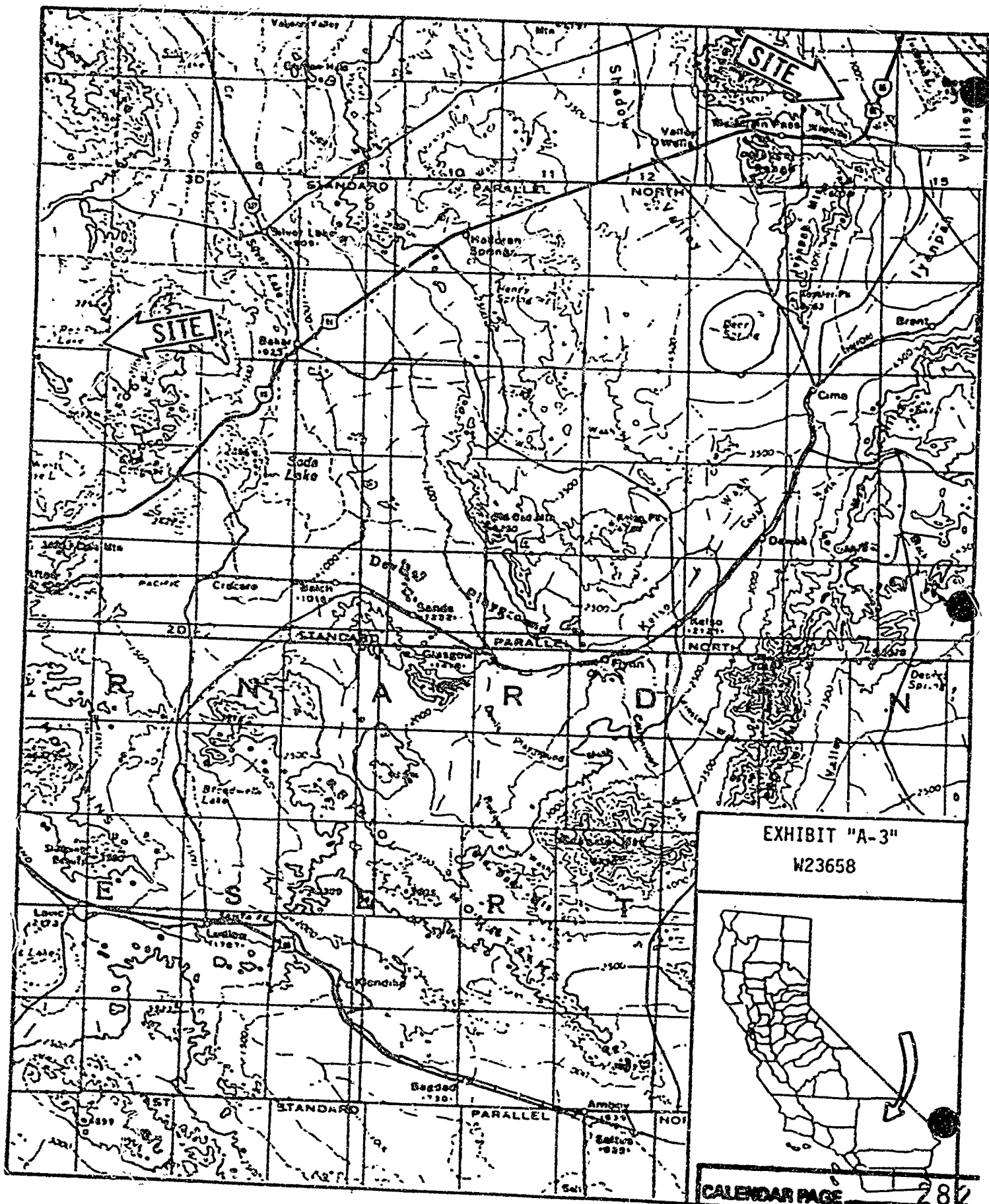


EXHIBIT "A-3"
W23658



CALENDAR PAGE 282
MINUTE PAGE 677

EXHIBIT "B-1"

W 23621

LAND DESCRIPTION

A strip of submerged land 50 feet wide in the bed of the Colorado River situated within the projected Section 8, T 7 N, R 24 E, SBM, San Bernardino County, California, as shown in Dwg. No. 231-001-A-9500, Sheet 2 and 3, by the Mojave Pipeline Company, said strip having a length of approximately 381.00 feet.

EXCEPTING THEREFROM any portion lying within the State of Arizona.

END OF DESCRIPTION

PREPARED FEBRUARY, 1991 BY LLB

CALENDAR PAGE	283
MINUTE PAGE	678

EXHIBIT "C-1"

W 23621

LAND DESCRIPTION

Those two parcels of state-owned land situated in Section 23, T 9 N, R 1 E, S B M, San Bernardino County, California, more particularly described as follows:

PARCEL 1

COMMENCING at the southwest corner of said section, thence along the section line between Sections 23 and 26, N 89° 48' 10" E, 1813.31 feet; thence leaving said section line N 08° 54' 48" E, 15.61 feet to the POINT OF BEGINNING; thence S 81° 05' 12" E, 650.00 feet; thence S 08° 54' 48" W, 225.00 feet; thence N 81° 05' 12" W, 650.00 feet; thence S 08° 54' 48" W, 225.00 feet to the point of beginning.

EXCEPTING THEREFROM any portion lying within Section 26, T 9 N, R 1 E, S B M.

PARCEL 2

A strip of land 30 feet wide for the purpose of ingress and egress lying 15 feet on each side of the following described centerline:

BEGINNING at a point that is N 89° 48' 10" W, 2291.85 feet from the southwest corner of said Section 23; thence N 08° 54' 48" E, 455.30 feet to the south right-of-way line of the National Trails Highway.

END OF DESCRIPTION

PREPARED FEBRUARY, 1991 BY LLB

CALENDAR PAGE	285
MINUTE PAGE	680

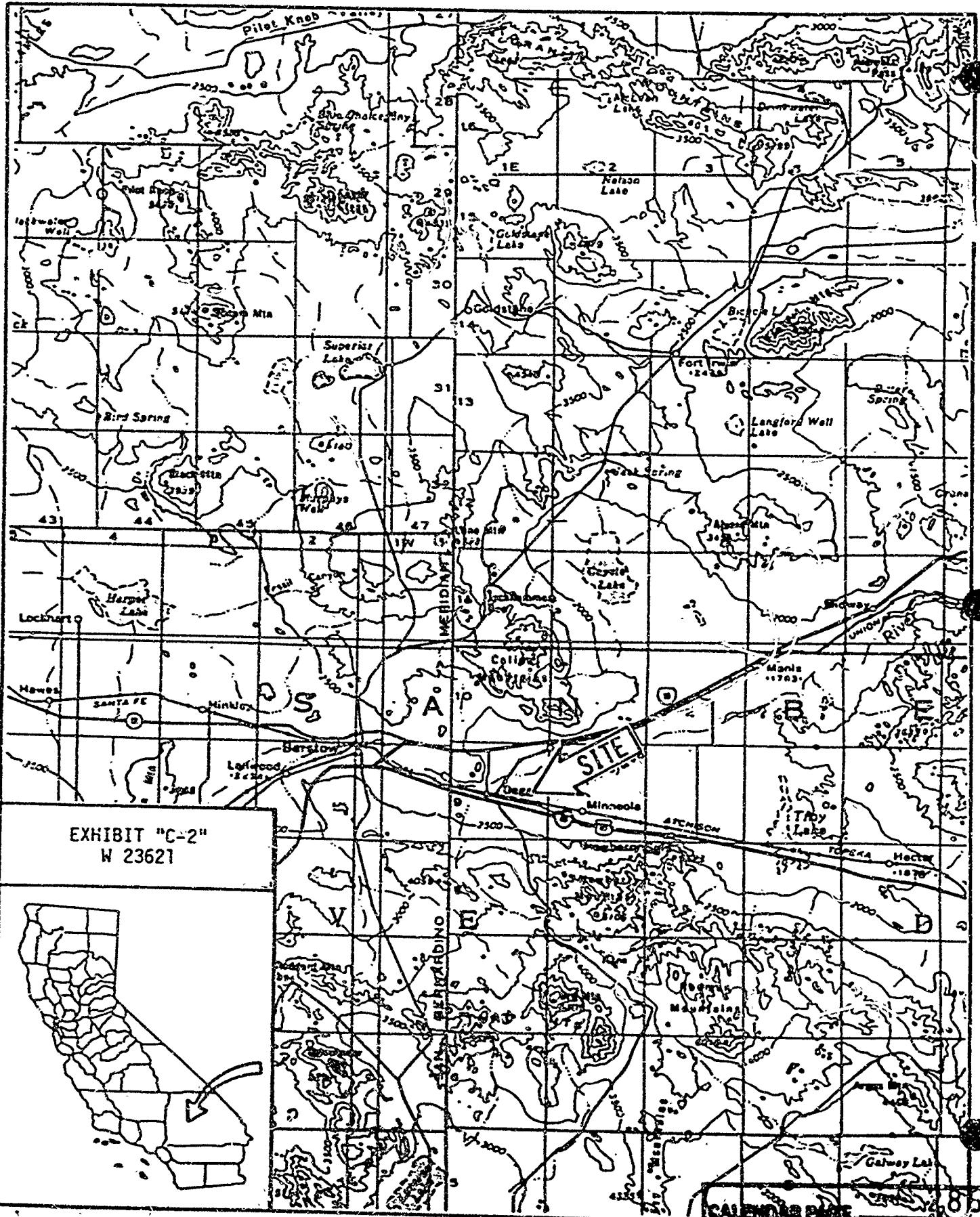


EXHIBIT "C-2"
W 23621



CALENDAR PAGE 680
MINUTE PAGE 681

EXHIBIT "D-1"

W 23621
W 23658

LAND DESCRIPTION

A strip of submerged land 50 feet wide in the bed of the Kern River situated within the projected Section 10, T 29 S, R 28 E, MDM, Kern County, California, as shown in Dwg. No. 231-001-A-9508, Sheet 2, by the Mojave Pipeline Company, said strip having a length of approximately 382.00 feet.

END OF DESCRIPTION

PREPARED FEBRUARY, 1991 BY LLB

CALENDAR PAGE	287
MINUTE PAGE	682

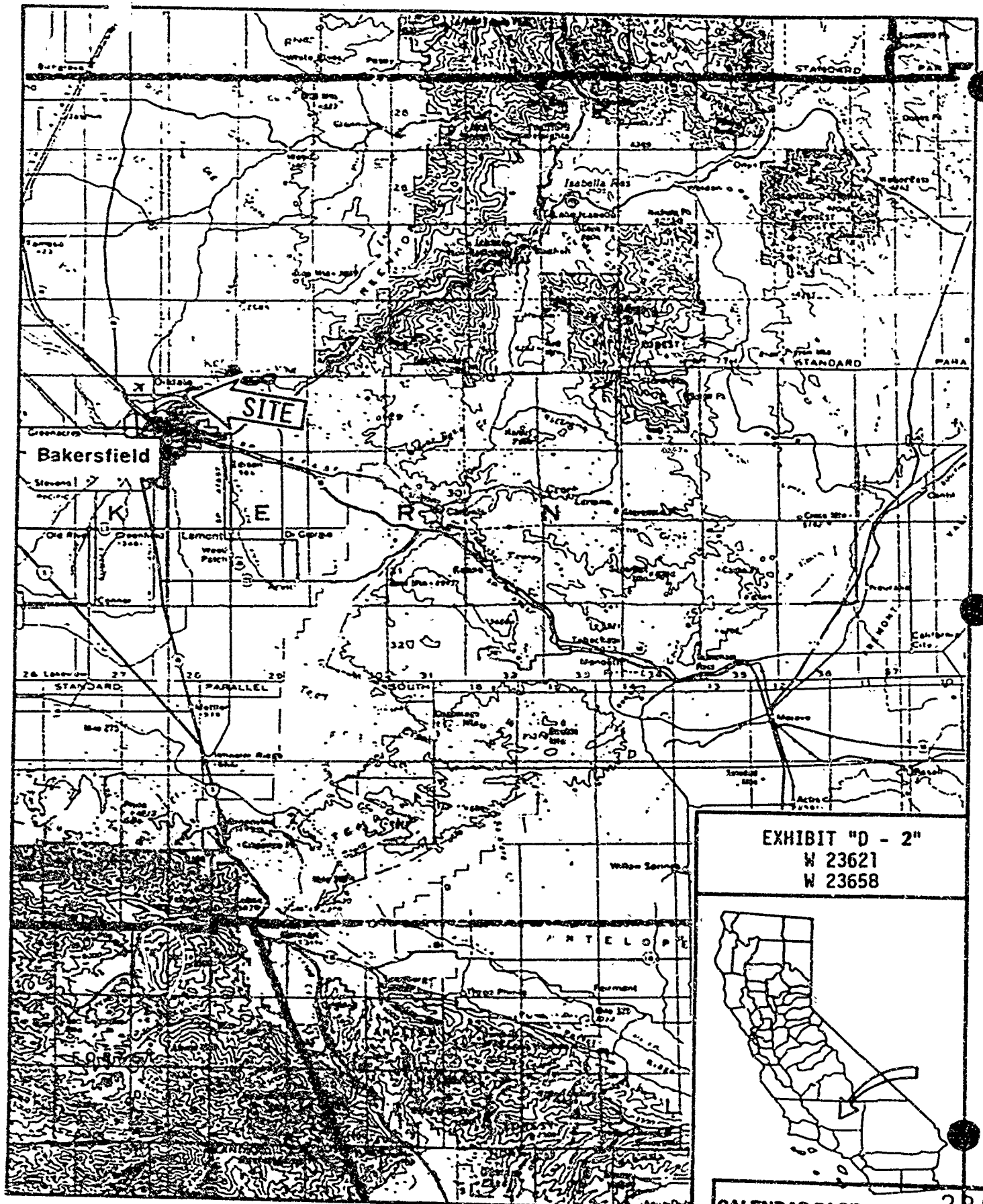


EXHIBIT "D - 2"
 W 23621
 W 23658



EXHIBIT "E-1"

W 23621
W 23658

LAND DESCRIPTION

A strip of state-owned land 50 feet wide situated in Section 23, T 9 N, R 1 E, S B M, San Bernardino County, California, lying 25 feet on each side of the following described centerline:

COMMENCING at the southwest corner of said section, thence along the section line between Sections 22 and 23, North 103.00 feet to the POINT OF BEGINNING; thence leaving said section line S 81° 04' 52" E, 548.00 feet; thence S 81° 05' 12" E, 650.00 feet; thence S 81° 03' 37" E, 114.00 feet to the south line of said Section 23 and the end herein described centerline.

END OF DESCRIPTION

PREPARED FEBRUARY, 1991 BY LLB

CALENDAR PAGE	289
MINUTE PAGE	684

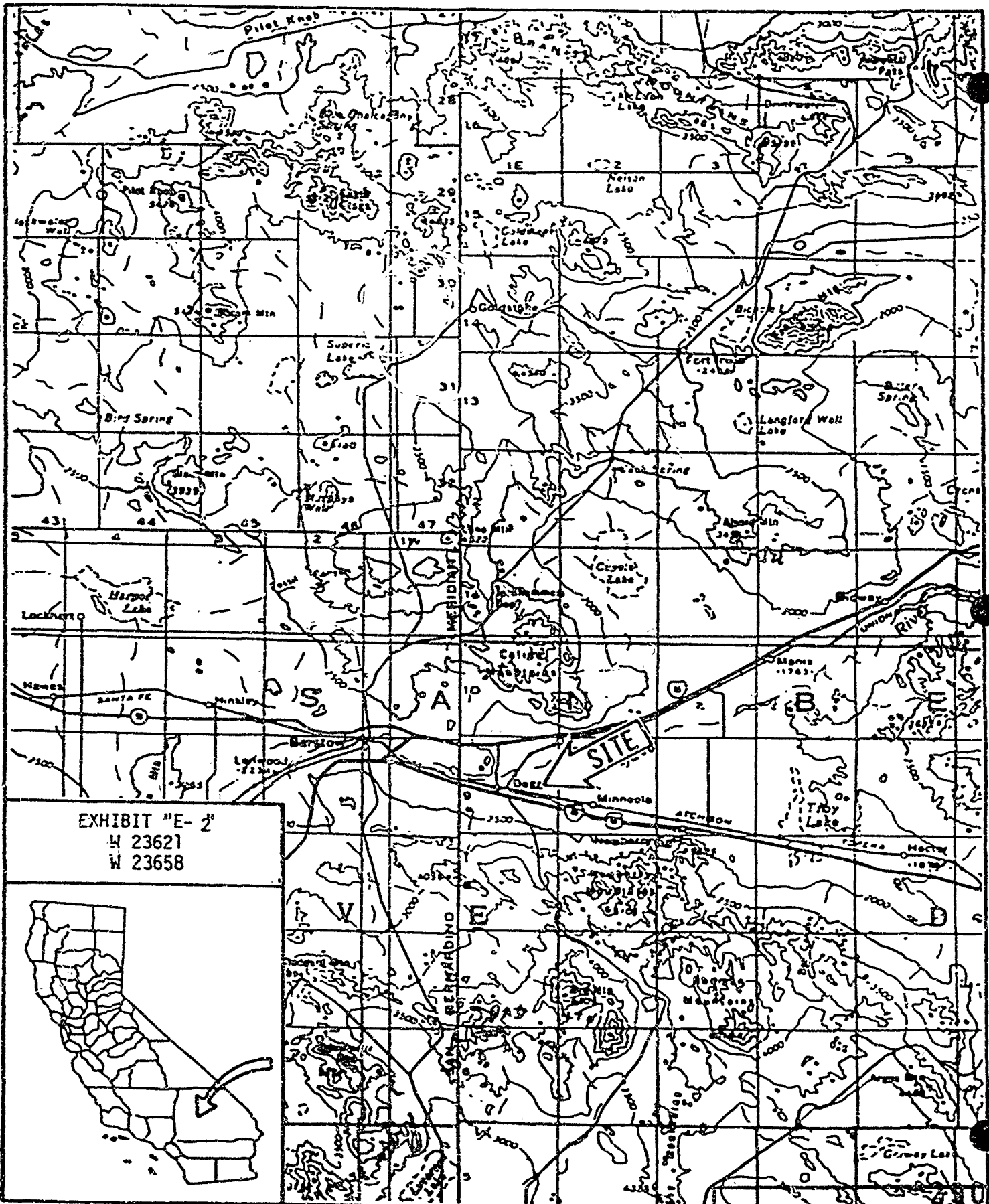


EXHIBIT "E-2"
 H 23621
 W 23658

CALENDAR PAGE

MINUTE PAGE 685

EXHIBIT F

EIR/EIS and EIR AMENDMENT EXECUTIVE SUMMARY

INTRODUCTION

The Mojave-Kern River-El Dorado Natural Gas Pipeline Project EIR/EIS (FEIR/S) is a joint document prepared by the California State Lands Commission and the Federal Energy Regulatory Commission to fulfill the requirements of the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). These two agencies in coordination with the Bureau of Land Management, the USDA Forest Service and other federal agencies have directed the preparation of the joint state and federal document.

The proposed pipeline projects would transport natural gas supplies from various sources outside of California to the Bakersfield, California area for use in the enhanced oil recovery and related cogeneration projects as well as a supply to local distribution companies. In each case, producers of crude oil in the San Joaquin Valley would use the natural gas as boiler fuel to create steam which would be injected into the oil fields to produce crude oil not recoverable by primary methods. The producers currently use crude oil and a limited amount of natural gas for steam generation.

The Mojave-Kern River Pipeline Projects Environmental Impact Report (EIR) Amendment is a document prepared by the California State Lands Commission to fulfill requirements of the California Environmental Quality Act. The purpose of the EIR Amendment was to review the changes made to both the Mojave Pipeline and Kern River Pipeline projects since the completion of the December 1987 Mojave-Kern River-El Dorado Natural Gas Pipelines Projects Final Environmental Impact Report/Statement (FEIR/S) issued jointly by the California State Lands Commission and the Federal Energy Regulatory Commission (see Figure S-1). This document, and a subsequent Supplement issued in October 1988 to cover the addition of the another proposed WyCal pipeline project (Mojave-Kern River-El Dorado Natural Gas Pipeline Projects Final Supplement to the Final Environmental Impact Report/Statement) were used as the basis for EIR Amendment and thus were utilized to produce the Findings.

The FEIR/S originally analyzed the environmental impacts associated with the construction of interstate natural gas pipelines from a number of different areas. Three main proposals were under consideration: Mojave Pipeline Company, El Dorado Interstate Transmission Company, and Kern River Gas Transmission Company. In August, 1987, Wyoming-California Pipeline Company also filed an application with the FERC. This project was considered mutually exclusive of the other three projects but since the routes were similar to those analyzed in the FEIR/S, the WyCal project was considered with the Mojave and Kern River projects.

Following the issuance of both the FEIR/S and the Supplement, Mojave, Kern River, and WyCal subsequently applied to the SLC and FERC to amend their applications. Mojave and Kern River proposed minor route changes which fell outside of the one-mile wide corridor analyzed in the FEIR/S and also proposed to construct and operate a new interstate system made up of the components of both systems which they had previously proposed individually. This proposal would result in a merger between Mojave and Kern River into a joint project with common facilities that both applicants would use to transport natural gas to Kern County. This document analyses these changes to the Mojave and Kern River proposals.

Mojave Facilities

The proposed Mojave facilities consist of approximately 159 miles of 24- and 30-inch pipeline extending along Mojave's FERC certificated route from the area near Topock, Arizona to the point of interconnection with the Kern River facilities and the Common Facilities near Daggett, California. Additional facilities include the FERC certificated Topock Compressor Station and appurtenant facilities including metering stations.

The first segment of the Mojave Facility would consist of an approximately 17-mile long, 24-inch diameter pipeline (Mojave Transfer Line) to be constructed from a tap on an existing 30-inch pipeline owned by Transwestern in Mohave County, Arizona, to a proposed compressor station located near Topock, Arizona, and an interconnection from a tap on an existing El Paso pipeline immediately south of the proposed Topock Compressor Station.

The second segment of the Mojave Facility would consist of approximately 142 miles of 30-inch diameter pipeline (Mojave Mainline) commencing at the Topock Compressor Station, crossing the Colorado River into California on an aerial suspension bridge, and extending to the Interconnection Point with the Kern River facilities.

A single compressor station would be constructed at the point where the Mojave Transfer Line and the Mainline intersect. This compressor station would have a site-rated capacity of 14,080 horsepower.

Meter stations would be located at the points of interconnection between the Mojave, Transwestern, and El Paso pipelines to measure the deliveries of gas. These meter stations would encompass approximately four acres each. A new meter station would be located

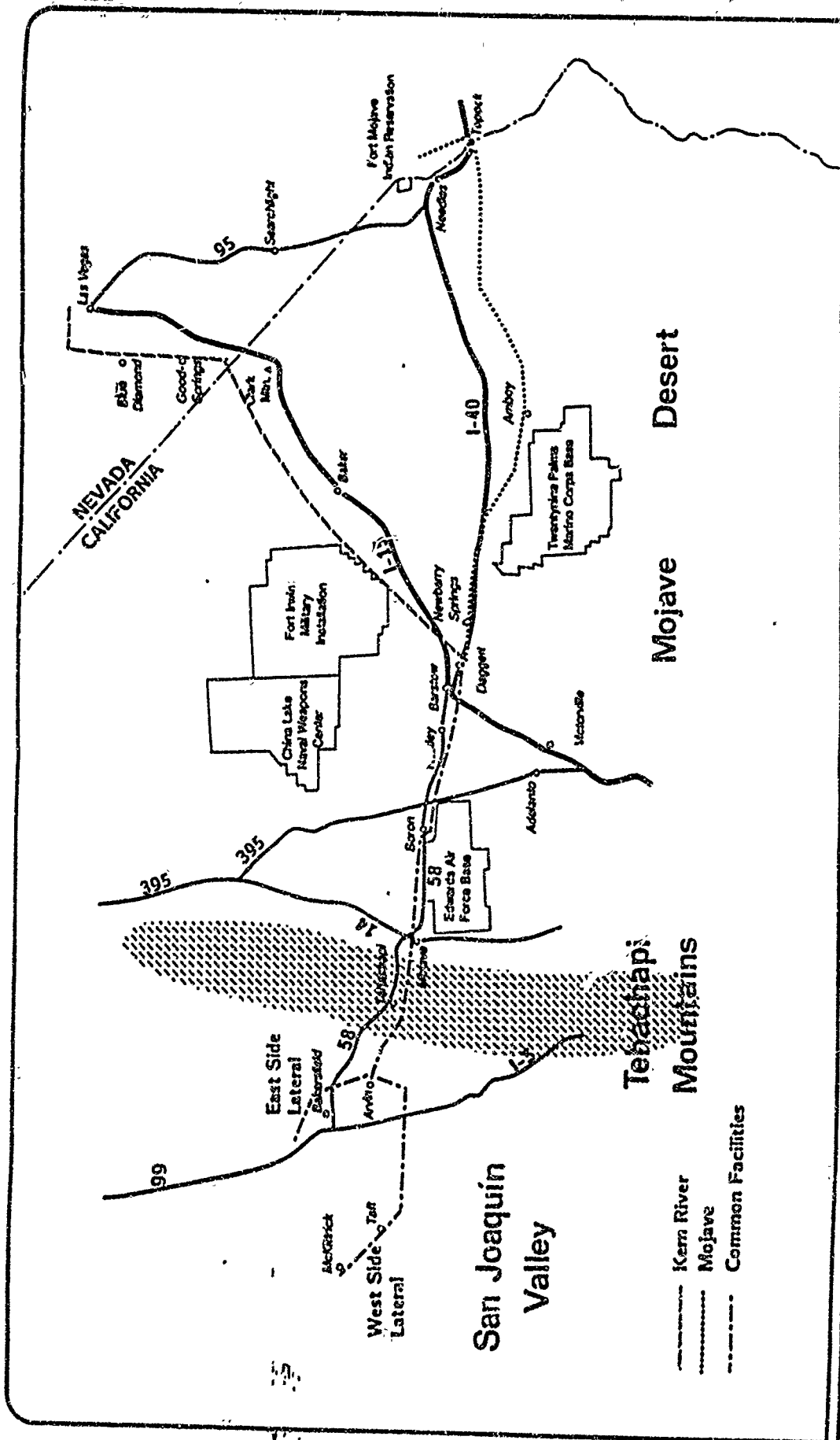


Figure S-1
Certificated Routes and Proposed Modification

KERN/MOJAVE PIPELINES

at the Daggett interconnection point between the Mojave Facility and the Common Facilities, to measure the deliveries of gas from Mojave to the Common Facilities.

Common Facilities

The Common Facilities would consist of approximately 225.5 miles of 12.75-, 16-, 30-, 36-, and 42-inch pipeline, together with appurtenant facilities, extending from the Daggett interconnection point to near Bakersfield. The Common Facilities would be constructed by Mojave and jointly owned by Mojave and Kern River and consist of four segments. The first segment (Common Mainline) would start at the Daggett Interconnection Point where the Mojave and Kern River facilities join and consist of approximately 118.1 miles of 42-inch pipeline extending west to a point southeast of Bakersfield (Bifurcation Point). It will have a maximum capacity of 1,100 MMcfd.

The West Side Mainline would consist of approximately 21.6 miles of 42-inch pipeline commencing at the new Bifurcation Point near Arvin, California, and proceeding west to the SoCal delivery point and the West Side Lateral. The West Side Mainline would have a capacity of 700 MMcfd; delivering 300 MMcfd to SoCal at the terminus of the West Side Mainline and 400 MMcfd to the West Side Lateral.

The West Side Lateral would consist of approximately 43 miles of 30-inch pipeline commencing at the end of the West Side Mainline and proceeding northwest to a terminus at Chevron's Z-17 gas processing plant. The West Side Lateral would be capable of delivering 400 MMcfd at its terminus.

The East Side Lateral would consist of approximately 39.4 miles of pipe; with 26.0 miles of 30-inch pipeline beginning at and proceeding northward from the Bifurcation Point to a point in the Kern River Oil Field; 7.2 miles of 16-inch pipe from the Kern River field to the Mt. Poso field; and 6.2 miles of 12.75-inch pipe from the Mt. Poso field to the Poso Creek field. The East Side Lateral would be capable of delivering 400 MMcfd at its terminus.

Additional construction includes a new metering station at the SoCal delivery point of the West Side Mainline. This facility would entail disturbance of approximately four acres of land.

Kern River Facilities

Kern River proposes to construct a 676-mile long, 36-inch pipeline from the origin point in Wyoming, through Utah and Nevada (utilizing the Wasatch and the North Las Vegas Variations, respectively), to a point in California where the route would interconnect with the Mojave Pipeline near Daggett, California. Here, a metering station occupying from 1 to 3 acres, would be constructed to measure deliveries to the Common Facilities, a 42-inch

pipeline to be jointly owned by Kern River and Mojave and utilized to transport natural gas into the Kern County vicinity.

Connected Actions

There are additional construction-related impacts that have a reasonably high probability of occurring as a result of the proposed Joint Mojave-Kern River Natural Gas Pipeline Project. The two companies have 27 customers with a total commitment of 1,232.65 MMcfd with 100 MMcfd of that total in contingency status. With the exception of Mojave's U.S. Borax and Chemical Corporation delivery point in the western Mojave Desert, the customer delivery points are all located in the San Joaquin Valley of California. Kern River's commitments would require a minimum of 7.66 miles of new lateral delivery pipeline to their 20 customers and Mojave would require an additional 10.9 miles to serve their 7 customers.

Alternatives

Several alternatives have been developed throughout the EIR process. At this point in time, the number of alternatives has been reduced to the following: the No Action Alternative, WyCal Alternatives, PGT/PG&E Alternative, Altamont Alternative, No Project Alternative, Alternative Sources of Natural Gas, and Alternative Fuels for Enhanced Oil Recovery.

The PGT/PG&E Alternative has been examined in a Final EIR prepared by the California Public Utilities Commission (CPUC) and in a Draft EIS prepared by the Federal Energy Regulatory Commission (FERC). The CPUC Final EIR recommended that the Energy Efficiency/System Optimization Alternative was clearly environmentally superior followed by the Altamont Project, the Mojave and WyCal Projects, and the Joint Mojave-Kern River Projects. The CPUC indicates that the PGT/PG&E Project would result in the greatest level of significant impacts within the State of California. The document further states that the Energy Efficiency/System Optimization Alternative could not provide the requisite energy services and capacity on a short-term basis and thus is not viable.

The Altamont Alternative is not viable because the Kern River Project must be built prior to construction of the Altamont Project. They therefore cannot be alternatives to one another.

Alternative Sources of Natural Gas have been considered and could supply some additional capacity to the California marketplace. The CPUC has analyzed long-term trends in the California natural gas market and the interstate natural gas pipeline supply and capacity available in California and concluded that an additional 900 MMcfd of natural gas services would be needed by 1995 and that between 1,600 and 2,100 MMcfd would be needed by 2005. It is unlikely that these supplies could be produced solely within California without requiring additional pipeline construction.

Finally, no feasible Alternative Fuel Sources have been identified to offset the use of either oil or natural gas for boiler fuel in the EOR fields. Future fuels which may be utilized include both solar and waste to energy technology; however, the effectiveness of these fuels as replacements for boiler fuels remains in doubt.

Of all of the alternatives only the No Action Alternative, WyCal Alternatives, and the No Project Alternative are potentially feasible.

No Action Alternative

The No Action Alternative in this instance would entail the utilization of the Mojave pipeline route as originally proposed in the FEIR/S with modifications which occurred within the one-mile wide analysis corridor. The action involving the proposed Kern River modifications would not be permitted within California. The changes requested by Kern River would go beyond simple modification of their pipeline route, but would result in a substantial reduction in environmental impact.

The No Action Alternative would allow the construction of either the Mojave or Kern River Pipelines or both pipelines, if the market would support both projects. The differences in impacts in California would be negligible between the two projects, which construction of both projects would potentially result in a doubling of impacts.

The major advantage of the proposed Joint Mojave-Kern River project (the Proposed Action) over the No Action Alternative lies in the fact that the amount of gas delivered to the California market would be almost doubled without doubling the construction related impacts.

WyCal Alternatives

The WyCal Alternatives would consist of the construction of a separate pipeline from Wyoming to California without the construction of certain portions of the route which would connect it with the Southwest natural gas market. The proposals would deliver between 400 and 650 MMcf/d of natural gas to the Bakersfield area. The WyCal Alternatives would meet the needs of the project and would have environmental impacts similar to those associated with either Mojave or Kern River projects within California. Several disadvantages to the project were noted. These include the limited amount of gas delivered to the Bakersfield market when compared against the amount of environmental impact. A major disadvantage is the withdrawal of WyCal's application before the State Lands Commission and the Federal Energy Regulatory Commission. The viability of the alternative without economic support of WyCal must be considered.

No Project Alternative

The No Project Alternative would result in the denial of all of the proposals for construction of interstate pipeline construction within the State of California. This proposal would result in a continuation of the status quo. EOR operations in the southern San Joaquin Valley

would then continue using crude oil as the primary fuel for the generation of steam.

This alternative would severely limit the amount of crude oil which could be produced from the Southern San Joaquin Valley oil fields. Current limitations on steam generation would continue resulting in less production. This production curtailment would be coupled with a reduction in the amount of crude oil available for sale since the crude production would be limited. It would also result in a status quo situation with regard to air quality levels in the southern San Joaquin Valley.

AREAS OF CONTROVERSY

Areas of controversy involve impacts resulting from the construction and operation of the pipelines at several locations along the Mojave, Kern River, and Common Facilities routes. Environmental concerns associated with the proposed Mojave and Common Facilities routes include construction activities through sensitive areas in California and include habitat of the desert tortoise, Mohave ground squirrel, Tehachapi slender salamander, blunt-nosed leopard lizard, San Joaquin kit fox, San Joaquin antelope squirrel, Tipton kangaroo rat, and several state and/or federally listed plant species which occur sporadically along the route.

Areas of controversy associated with the Kern River route include geologic, soils, watershed, and recreation concerns in Utah and construction concerns associated with the desert tortoise in Utah, Nevada, and California.

MAJOR IMPACT CONCLUSIONS

Significant impacts have been analyzed in detail in Section 4 of the FEIR/S as well as in Sections 3 and 5 of the EIR Amendment. Mitigation measures have been developed in Section 4 of the FEIR/S and additional mitigation measures for biological impacts and cultural resources impacts have been presented in that document.

EXHIBIT G

CEQA FINDINGS

Explanatory Notes:

Herewith are presented the findings made by the State Lands Commission, pursuant to Section 15901, Title 14, California Administrative Code, on the proposed Mojave Pipeline Company, Kern River Gas Transmission company and the Joint Mojave-Kern River Pipeline Projects EIR/EIS and the associated Environmental Assessment and Amendment. All significant impacts of the projects identified in the EIR/EIS are listed for each major separate pipeline route analyzed: Mojave Pipeline; Kern River Pipeline; the Joint Mojave-Kern River Pipeline (Common Facilities); the Mojave Troy Lake, East Side Bifurcation, Kern River, Poso Creek, El Tejon Trap Site, Pump and Giant Kangaroo Rat variations; and the Kern River, Kern-Mojave Interconnect.

The impacts are organized under each of the above routes according to the resource affected (air quality, geology, vegetation, etc.), and whether the impact is due to pipeline construction or operation.

For each significant impact, a finding has been made of one or more of the following as appropriate: a) Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR and the Final EIR Amendment; b) Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency; and c) Specific economic, social and or other considerations make infeasible the mitigation measures or project alternatives identified in the Final EIR.

Findings for this project will only entail impacts located within the State of California. The Mojave Project also has facilities located in Arizona, while the Kern River Project has facilities located in Wyoming, Utah, and Nevada, as well as in California.

It will be seen that for many of the impacts, all three findings have been made. Finding b) appears often because although the State Lands Commission is the CEQA Lead Agency, it has the jurisdiction only over a small part of the route and thus has limited power to require mitigation. Whenever Finding b) occurs, agencies with jurisdiction over the location and/or operation of the pipeline(s) have been specified. It is these agencies, within their respective spheres of influence, which would have the ultimate responsibilities to adopt, implement, and enforce the mitigation discussed within each type of potential impact which could result from the installation and/or operation of the pipeline or its ancillary components. However, under recently adopted California statutory legislation (AB3180, CORTESE), the CEQA Lead Agency has the responsibility to ensure that mitigation measures contained in an EIR are effectively implemented. The California State Lands Commission has prepared a Mitigation Monitoring Plan which will be overseen by the

Commission. This plan includes the direct observation of all preconstruction, construction, and reclamation phases of both the Mojave and Kern River pipeline projects within the State of California.

Finding c) appears whenever an unavoidable significant impact has been identified and sufficient mitigation is not practicable to reduce the impact to a level where no residual impact remains. Due to the linear nature of the project, such impacts have been identified along the length of the pipeline.

The appropriate findings are followed by a narrative of the facts supporting them. When possible reference is made by number to the specific mitigation measure presented in Section 3.1 of Volume III of the EIR/EIS. The impacts, findings, and facts supporting the findings for Terrestrial Biology are presented in a slightly different fashion. Because of the ecological linkages between plants, animals, habitats and communities, many impacts and mitigation measures apply to several of the resource areas. In addition, in depth field surveys were conducted along the routes in California to determine the presence or absence of sensitive species as well as information on the densities of species that would occur. These studies resulted in additional mitigation measures which were presented in Appendix C and D of the EIR Amendment.

Whenever finding c) was made, the State Lands Commission has determined there will be, even after mitigation, an unavoidable significant level of impact due to the project. This impact is always specifically identified in the supporting discussions. The Statement of Overriding Considerations, applies to all such unavoidable impacts, as required by Sections 15902 and 15903, Title 14, California Administrative Code.

KERN RIVER

- GEOLOGY:** Operation
- Impact:** Geologic and seismologic hazards may result in damage to the pipeline and related facilities in the vicinity of the Coyote Lake, Manix and Calico Faults.
- Finding:** A) Changes or alteration have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.
- B) Such changes or alterations are within the responsibility or jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by other such agencies or can or should be adopted by other such agencies. (California counties; Bureau of Land Management (BLM); Federal Energy Regulatory Commission (FERC)).

FACTS SUPPORTING THE FINDING:

Although it is difficult to quantify the probability of surface fault rupture, it is generally accepted that the more recently a fault has moved, the more likely it is to move again in any given period of time in the future. All faults with evidence of displacement during Quaternary time were examined. The State of California Division of Mines and Geology (CDMG) also identifies faults which are judged to be sufficiently capable of surface rupture in the short-term and thus require special study and design before facilities can be built in the vicinity. Among the criteria, evidence of Holocene offset is sufficient to cause the fault to be zoned.

Along the Kern River route in California, the EIR identified three faults within the portion of the route now under study that showed evidence of Quaternary movement (FEIR/S/II, Table 3.1-6). Field investigations of these faults indicated that both the Calico and Manix Faults would be crossed by the present pipeline alignment. The Coyote Lake Fault would not be crossed.

The Calico Fault is located near the intersection of Interstate Highway 15 and Minneola Road near Daggett, California between MP 634 and 635. The Calico Fault is a right-lateral strike-slip fault zone about 0.6 mile wide with evidence of repeated Holocene activity (Sergent, Hauskins & Beckwith, 1990). Two faults were located which cross the alignment, the main trace of the Calico Fault and a fault subsidiary to the main trace. Potential displacements have been estimated to be seven feet on the main trace and five feet on a subsidiary fault.

The Manix Fault represents an area with the most recent earthquake event in the region. The Manix earthquake of April 10, 1947, remains the largest recorded seismic event in the region. The earthquake registered a magnitude of 6.2 (Keaton and Keaton, 1977).

Because of the linear nature of the pipeline, many government agencies have land use responsibility and jurisdiction over the project, and thus, can require mitigation measures as part of the right-of-way (ROW) or construction permit or grant. In California, San Bernardino County would have jurisdiction over private lands along the pipeline route, while the BLM administers the public lands associated with the Kern River route.

The following mitigation measures were suggested in the FEIR/S, which each of the above agencies as appropriate, can require to reduce the impact of construction or operation.

Detailed geologic, seismologic, and geotechnical studies shall be conducted by the applicant to identify and characterize geologic hazards as appropriate. In areas where hazards are identified, information shall be collected to aid in the design and construction of the pipeline and ancillary facilities. In general, care shall be taken during construction to minimize surface disturbance and related soil erosion, and not to alter the drainage of the affected area (FEIR/S Mitigation Measure #4).

Additional studies shall be conducted by the applicant to evaluate potential seismological hazards along the proposed routes. The potential for surface offset along Quaternary faults shall be evaluated in detail so that appropriate pipeline crossings can be designed. Field studies shall be completed to delineate the areas where movements may occur (FEIR/S Mitigation Measure #5).

Results of the proposed applicants' geotechnical studies indicated in Nos. 4 and 5 above shall be submitted to the SLC. The following geotechnical studies and mitigating design measures shall be submitted for review and approval by the SLC staff prior to implementation of these measures. Such studies shall include identification of: (a) all Holocene faults crossed by the proposed facilities; (b) all areas where potentially liquefiable deposits are crossed and likely effects on the facilities; and (c) all landslides or areas of significant slope instability crossed by, or possibly affecting, the proposed facilities. Sufficient justification should be included for not implementing specific mitigating measures in areas identified as subject to significant geologic hazards (FEIR/S Mitigation Measure #8).

Implementation of these measures have been completed by Kern River (Sergent, Hauskins & Beckwith, 1990) and will result in minimization of the potential for serious damage to the pipeline and related facilities. This has been accomplished by avoidance of faults where possible, utilization of construction techniques which would result in excavation of a ditch to allow for a minimum of 1.5 pipe diameters between the pipe and ditch wall, and backfilling with select padding material which has favorable characteristics to act as a cushion in areas where avoidance is not feasible, and inspection by a qualified engineering geologist to assure that the design of the pipeline is adequate for the existing conditions and to recommend any changes or modifications in design if necessary.

KERN RIVER

SOILS: Construction

Impact: Construction of the pipeline will result in a loss of topsoil due to wind and/or water erosion. Removal of vegetation and/or desert pavement will result in increased erosion. Reclamation potential of the soils along the route are generally poor due to sandy texture and/or saline alkaline conditions.

Finding: A) Changes or alteration have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

B) Such changes or alterations are within the responsibility or jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by other such agencies or can or should be adopted by other such agencies. (California counties; Bureau of Land Management (BLM); Federal Energy Regulatory Commission (FERC)).

C) Specific economic, social or other considerations make infeasible the mitigation measures or project alternatives identified in the Final EIR.

FACTS SUPPORTING FINDING:

Significant adverse impacts to soils would result from the construction of the pipeline. These impacts would consist of the permanent removal of vegetation from a portion of the ROW for at least five years. Vegetation removal could result in increased wind and/or water erosion. Furthermore, the poor reclamation potentials of most of the soils along the route would preclude rapid recovery of the vegetative community.

Many government agencies have land use responsibility and jurisdiction over the project, and thus, can require mitigation measures as part of the right-of-way (ROW) or construction permit or grant. In California, San Bernardino County would have jurisdiction over private lands along the pipeline route, while the BLM administers the public lands associated with the Kern River route.

Several mitigation measures are suggested in the FEIR/S which the appropriate agencies can require to reduce the impact of pipeline construction. These measures include:

Selective salvage and replacement of topsoil (A horizon) shall be done for cultivated lands and those lands for which the land management agency or the landowner requests that topsoil be salvaged and replaced or on lands underlain by soils poorly suited or with

unsuitable reclamation potential. Topsoil shall not be used for filling of sack breakers or for padding of the trench (FEIR/S Mitigation Measure #13).

The applicant shall minimize the amount of vegetation removed, and where it is removed leave the roots intact (FEIR/S Mitigation Measure #17).

During construction of the project, on-site reclamation specialists, certified by The Soil Conservation Society of America, shall be employed by the company for each construction spread to provide direct applicable restoration procedures when special conditions are encountered, without causing construction delays (FEIR/S Mitigation Measure #19).

Where practical, as determined by the appropriate regulatory agency, the pipeline shall be located on side-slopes of less than 30 percent (FEIR/S Mitigation Measure #21).

The applicant shall minimize the areas of disturbance to a minimum necessary to construct and operate the pipeline. Steep slopes and particularly sensitive areas prone to significant impact shall be avoided where practicable (FEIR/S Mitigation Measure #24).

Soil areas with rock fragments, such as very coarse gravel, cobble or stone scattered on the surface or desert pavement conditions shall be restored as nearly as possible to the original preconstruction surface condition to blend with the adjoining area, to avoid a smooth surface ROW area, and to control accelerated erosion (FEIR/S Mitigation Measure #26).

On federal lands, a detailed site-specific geotechnical and restoration and reclamation plan shall be developed and become part of the Forest Service/Bureau of Land Management construction, operation, and maintenance (COM) plan. Because the proposed ROW is composed of many types of terrain, soils, water, bedrock, vegetation, land uses, and climatic conditions, the detailed plan shall include sets of techniques and measures tailored to each condition encountered. Local expertise and locally effective slope stabilization and reclamation methods shall be followed when the site-specific procedures for the detailed plans are developed. Site-specific geotechnical and erosion control, revegetation, and restoration measures from the plans shall be implemented under the direction of the appropriate agency official. Consultation with all appropriate state and federal agencies and other local experts will be required when developing detailed site-specific revegetation plans (FEIR/S Mitigation Measure #27).

All topsoil on federal lands shall be conserved for reclamation requirements unless otherwise directed by the FS/BLM; excess topsoil shall be stockpiled at designated locations. Topsoil shall be removed, windrowed separately, protected, and replaced last during backfilling (FEIR/S Mitigation Measure #29).

During adverse weather conditions, as determined by the FS/BLM authorized officer, stop and start orders on federal lands shall be issued to prevent rutting or excessive tracking of soils and deterioration of vegetation in the ROW area (FEIR/S Mitigation Measure #30).

On all federal lands, design and construction of all temporary, reconstructed, and newly constructed roads shall be based on an approved COM plan transportation section and shall ensure proper drainage, minimize soil erosion, and preserve topsoil. This plan shall include clearing work, rehabilitation, and use and maintenance agreements associated with transportation needs.

Where possible, the ROW itself shall be used as an access road during the construction period. Overland access may be specified in lieu of road construction or reconstruction.

All temporary roads shall be closed and areas restored without undue delay or maintained as specified in the ROW grant(s) or special use permit(s). Restoration to near original slope and contour, including redistribution of topsoil, would be to the satisfaction of the appropriate land management agency (FEIR/S Mitigation Measure #31).

Areas with dense brush and/or boulders shall be cleared by construction machinery prior to grading and trenching. Trees and large shrubs that are too large to be bladed by a bulldozer shall be avoided or removed. Vegetation removed shall be windrowed within the ROW during construction and spread on the ROW after construction, for use as wildlife cover. The upper two to six inches of topsoil from the construction ROW requiring grading shall be removed and windrowed with the vegetation and kept separate from the remaining spoils.

Grading shall be limited to that area necessary to permit movement and operation of equipment. Grading shall not be permitted in areas where sensitive plant species occur, until after sensitive plants are removed and transplanted or soil seed banks are removed (EIR Amendment: Appendix C, Section 3.1.2.2).

Once construction is complete and the pipeline trench backfilled, the pipeline alignment and access roads shall be recontoured to approximate the original contour. Heavily compacted soils shall be loosened through the use of a cultivator or similar device. Stockpiled topsoil shall then be placed on the surface in a manner to reduce disturbance to the topsoil and recompaction of the soil.

In order to reduce water erosion, slope angle and slope length shall be reduced where appropriate.

In addition to the replacement of topsoil, rock and natural plant debris shall also be replaced to reduce erosion potential (EIR Amendment: Appendix C, Section 3.3.2.4).

All areas of the pipeline ROW containing native vegetation shall be restored by the replacement of the segregated topsoil onto the disturbed ROW. After return of the topsoil and the windrowed vegetation, the disturbed areas shall be imprinted. Imprinting is a shaped roller which forms funnel-shaped seedbed and seedling cradles which concentrate water and improve infiltration.

No mulching, fertilization or reseeding shall take place within the Mojave Desert beyond the replacement of the windrowed vegetation which will be mixed with the topsoil.

Restoration activities shall be monitored in the same manner as other construction activities.

Areas with a high potential, for either wind or water erosion shall be stabilized by the use of a tackifier such as J-tac (40-80 lbs/acre). The feasibility of usage shall be evaluated by the on-site biological monitoring staff and the reclamation specialist at the time of restoration (EIR Amendment: Appendix C, Section 3.3.3.1).

Utilization of all of these measures will significantly reduce impacts to soils and vegetation; however, even with the implementation of these measures, impacts to soils will remain significant.

ALTERNATIVES

No Project Alternative

While the EIR does not address whether the No Project Alternative would result in greater or lesser soil erosion impacts, it is assumed that by not building the project would result in fewer soils related impacts. However, the No Project Alternative would not provide important benefits to the State of California which would result from operation of the Kern River Pipeline, particularly with respect to additional tax based revenues associated with the construction and operation of the facility, air quality benefits in the Kern County region, and a lessened dependance on foreign oil sources as a result of the Enhanced Oil Recovery goals of the project.

No Action Alternative

While the EIR does not address whether the No Action Alternative would result in greater or lesser soil erosion impacts, it is assumed that the building of the Kern River project as originally proposed would result in increased soils related impacts due to the increased length of pipeline construction across the State of California.

PGT/PG&E Alternative

While the EIR does not address whether the PGT/PG&E Alternative would result in greater or lesser soil erosion impacts, the CPUC Final EIR indicated that significant and unavoidable soils impacts would occur as a result of the building of the project. However, the PGT/PG&E Alternative would not overlap with the proposed Joint Mojave-Kern River Proposal and would not serve the same gas market place. As a result the feasibility of the PGT/PG&E alternative must be questioned. In order for the PGT/PG&E Alternative to be feasible an unknown amount of additional construction would have to be undertaken.

Alternative Energy Sources

While the EIR does not address whether the utilization of Alternative Energy Sources would result in greater or lesser soil erosion impacts, its utilization would result in fewer soils related impacts in the short-term. The Alternative Energy Sources Project would not result in significant long-term benefits due to the lack of adequate supplies of energy. Utilization of fuels other than natural gas would not provide important benefits to the State of California which would result from operation of the Kern River Pipeline, particularly with respect to additional tax based revenues associated with the construction and operation of the facility, air quality benefits in the Kern County region, and a lessened dependence on foreign oil sources as a result of the Enhanced Oil Recovery goals of the project.

KERN RIVER

SURFACE WATER: Construction

Impact: Reduced water quality, increased sediment loading, and aggradation and degradation of stream channels due to channel bed disruption could occur during construction across the Mojave River and several intermittent streams along the route.

Finding: A) Changes or alteration have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

B) Such changes or alterations are within the responsibility or jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by other such agencies or can or should be adopted by other such agencies. (California counties; Bureau of Land Management (BLM); Federal Energy Regulatory Commission (FERC)).

FACTS SUPPORTING FINDING:

The proposed crossing of the Mojave River would be buried below the channel bottom at a depth below the estimated scour. If the Mojave River were flowing during the construction phase, an unlikely event, an increase in sediment load and subsequent decrease in water quality would be expected downstream.

Mitigation measures have been developed to ensure that impacts to the Mojave River as well as all intermittent streams are minimized. These measures include the following:

The applicant shall develop and implement site-specific erosion control, revegetation, and stabilization plans as soon as possible to limit soil erosion and potential sediment input. This plan must be acceptable to the appropriate regulatory agency. In addition to this plan, an anti-degradation analysis of water quality should be undertaken to assure that the highest statutory and regulatory requirements and best management practices for pollutant controls are achieved (FEIR/S Mitigation Measure #35).

The applicant shall minimize stream bank and streambed disturbance to the extent practicable. Construction impact should not exceed two weeks. Periods of low flow shall be utilized when crossing stream channels (FEIR/S Mitigation Measure #36).

Construction across intermittent and perennial streams shall be done during periods of low or no flow where practicable. Stringent water quality control measures shall be utilized on crossings made during moderate to high flow periods (FEIR/S Mitigation Measure #37).

After pipeline construction is completed, construction contractors shall stabilize disturbed areas promptly (FEIR/S Mitigation Measure #38).

The pipeline shall be buried at stream crossings below the estimated scour depths associated with a 100-year flood event. Where channel degradation during operation reduces the burial depth to less than the 100-year scour depth, the applicant shall ensure the integrity of the pipeline through reburial to the proper depth wherever feasible. Where reburial is not practicable other methods such as installation of anchors and riprapping shall be employed (FEIR/S Mitigation Measure #44).

Pipeline operators shall check the pipeline burial depth periodically at stream/channel crossings (FEIR/S Mitigation Measure #45).

Stream crossings shall be made as perpendicular to the axis of the channel as possible (FEIR/S Mitigation Measure #47).

Spoil from trench excavation shall be placed out of the stream on the banks at narrow stream crossings. Spoil shall be carefully placed downstream of the trench at wide crossings. Backfilling at streams shall be performed slowly to minimize agitation and increased sediment loading. Good quality backfill shall be placed in streams (FEIR/S Mitigation Measure #48).

Implementation of these measures should reduce impacts to surface waters to insignificant levels.

KERN RIVER

SURFACE WATER: Construction and Operation

Impact: Reduction in water quality due to fuel or chemical spillage and impacts to surface water resources could occur during construction, operation and abandonment of the pipeline

Finding: A) Changes or alteration have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

B) Such changes or alterations are within the responsibility or jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by other such agencies or can or should be adopted by other such agencies. (California counties; Bureau of Land Management (BLM); Federal Energy Regulatory Commission (FERC)).

FACTS SUPPORTING FINDING:

The most significant impact on surface water would be the result of a fuel or chemical spill during construction or operation of the pipeline which could contaminate downstream water supplies. These accidental spills would generally be minor but have the potential to cause significant damage to water supplies.

Mitigation measures to reduce these impacts have been proposed which can be implemented to reduce impacts to insignificant levels. These measures include: requiring that chemicals, fuel, and lubricating oils shall not be stored near stream channels. Spill containments shall be installed or constructed around all chemical, fuel, and oil storage areas. Refueling and changing of lubricating oil shall not be done in or near stream channels, or where an accidental spill could run into a stream channel or shallow ground water zone. Any accidental spills shall be promptly cleaned up (FEIR/S Mitigation Measure #49).

Implementation of these measures should reduce impacts to surface water to insignificant levels.

KERN RIVER

TERRESTRIAL BIOLOGY

VEGETATION: Construction

Impact: Loss of sensitive plant communities or individual sensitive plant species could occur as a result of the construction of the pipeline.

Finding: A) Changes or alteration have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

B) Such changes or alterations are within the responsibility or jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by other such agencies or can or should be adopted by other such agencies. (California counties; Bureau of Land Management (BLM); Federal Energy Regulatory Commission (FERC)).

C) Specific economic, social or other considerations make infeasible the mitigation measures or project alternatives identified in the Final EIR.

FACTS SUPPORTING FINDING:

Construction of the pipeline will involve clearing a minimum 75 foot ROW with heavy earth moving equipment. Above-ground obstacles such as trees, brush and boulders are removed and any stumps or roots in the ditch line are taken out. After clearing, the ROW is graded and leveled as necessary for vehicle and equipment operation. These operations would generally remove or kill all vegetation in the 75 foot ROW corridor. Kern River has agreed to reduce this construction impact to the maximum extent possible by utilizing clearing methods which reduce the amount of impact to vegetation. In addition to these impacts, certain portions of the route such as stockpile areas, stream and road crossings, etc., may require additional construction space. These areas have been identified by Kern River.

Where the pipeline route crosses through sensitive and ecologically valuable plant communities such as riparian vegetation, Joshua tree woodland, Mojavean creosote bush scrub, blackbrush scrub, desert saltbush scrub, and Mojave wash scrub ROW construction would cause significant impact. In addition, where the route would pass through areas with individuals of sensitive plant species such as small-flowered androstephium, white bear poppy, red grama grass, alkali mariposa lily, crucifixion thorn, scaly cloak fern, viviparous foxtail cactus, desert cymopterus, Gilman's cymopterus, Barstow woolly sunflower, sand linanthus, Mojave monkeyflower, Parish's phacelia, Rusby's desert mallow, and Mormon needle grass, ROW construction would cause a significant impact.

Because of the linear nature of the pipeline, many government agencies have land use responsibility and jurisdiction over the project and thus can require mitigation measures as a part of ROW or construction permits or grants. San Bernardino County would have jurisdiction over private lands along the pipeline route while the BLM administers the federal lands in the desert. The U.S. Fish and Wildlife Service (USFWS) may require stipulations to protect certain plant communities on federal lands and the California Department of Fish and Game has to enforce certain protections for state-listed or otherwise state protected plant species.

A number of mitigation measures have been developed in the FEIR/S and in the EIR Amendment to reduce impacts to sensitive plant communities and individual plant species. These measures are available for appropriate agencies as a method of reducing impacts of ROW construction. A listing of the measures are presented below.

The applicant shall design and implement site-specific revegetation plans according to the requirements and guidelines of the land management agency (BLM or USFWS), state agency or landowner. These plans shall include the necessary topsoil replacement, seedbed preparation, mulching, fertilization, use of seed mixtures containing native species, noxious weed control and additional erosion control. Generally the revegetation objective would be to return the disturbed area to a condition that would perpetuate previous land use. Guidelines established by the SCS shall be used where the pipeline would traverse private land, and if it is agreeable to the owner. Periodic inspection of the ROW shall be conducted by the applicant and reclamation efforts enhanced where needed (FEIR/S Mitigation Measure #57).

During construction in sensitive areas, the applicant shall clear the minimum ROW width possible and minimize ROW damage where possible (e.g. not stripping vegetation less than four inches in height, leaving trees standing and/or mowing taller vegetation as opposed to clearing, the last being particularly desirable in Mojavean shrub communities). This shall include local adjustment of pipeline alignment to avoid areas with high densities of sensitive plant species or sensitive communities (FEIR/S Mitigation Measure #57).

Trees and shrubs that are not cleared shall be protected from damage during construction (FEIR/S Mitigation Measure #60).

Trench backfilling operations shall be conducted in such a manner to minimize further disturbance of vegetation (FEIR/S Mitigation Measure #61).

The applicant shall avoid, where feasible and necessary, locations of sensitive species and environmentally sensitive areas which include sensitive communities and known and suspected habitat of plant species of special concern. Specific information on sensitive areas shall be obtained by conducting field surveys along portions of the proposed route for individuals and habitat of species of concern and sensitive communities. Field surveys shall be conducted during the appropriate time of year by a qualified botanist. Where feasible, pipeline alignment shall be adjusted to miss or minimize impacts to identified individuals or habitats (FEIR/S Mitigation Measure #69).

For areas supporting sensitive plant communities or plant species of special concern, the applicant shall restrict access onto the pipeline ROW where possible, by constructing barricades, fences with locked gates or by posting with signs (FEIR/S Mitigation Measure #70).

Wetland and riparian vegetation impacted by construction or operation shall be replaced in kind (FEIR/S Mitigation Measure #71).

Removal of certain sensitive plant species from the ROW may be a way to decrease impacts to certain plant species in California. If plants are removed, replanting shall occur in suitable habitat outside the zone of potential disturbance (construction and ORV use). Such sites shall be established in consultation with the appropriate land management agencies (FEIR/S Mitigation Measure #72).

When it is not feasible to avoid areas containing plant species of special concern, the applicant shall attempt to transplant such perennial plant species back into the ROW after construction (FEIR/S Mitigation Measure #74).

To minimize permanent and temporary construction disturbances, project-related vehicle traffic, construction activities, and equipment storage shall be restricted to established roads, designated access roads, the construction ROW, storage areas, staging and parking areas, and other designated project areas including the placement of portable restroom facilities. Off-road traffic outside of designated areas shall be prohibited. Parking, storage, and other areas shall be designated by flagged lath stakes at least 24 inches above ground height placed in line of sight with a maximum spacing of 200 ft. These areas shall be examined during preconstruction surveys for state and/or federally listed species, and shall be established in locations disturbed by previous activities, to the extent possible. The construction ROW shall also be clearly marked at the centerline and outside boundaries. The outside boundaries of the ROW shall be staked with at least 24 inch-tall flagged lath at a maximum interval of 200 ft prior to construction. If construction activities are repeatedly documented outside of these flagged areas, the outer boundaries of the ROW must be delineated by a continuously taped boundary. All access roads, both existing and proposed, shall be flagged. Only flagged access roads shall be used (EIR Amendment: Appendix C, Section 3.1.2.1).

Areas with dense brush and/or boulders shall be cleared by construction machinery prior to grading and trenching. Trees and large shrubs that are too large to be bladed by a bulldozer shall be avoided or removed. Vegetation removed shall be windrowed within the ROW during construction and spread on the ROW after construction, for use as wildlife cover. The upper two to six inches of topsoil from the construction ROW requiring grading shall be removed and windrowed with the vegetation and kept separate from the remaining spoils.

Grading shall be limited to that area necessary to permit movement and operation of equipment. Grading shall not be permitted in areas where sensitive plant species occur,

until after sensitive plants are removed and transplanted or soil seed banks are removed (EIR Amendment: Appendix C, Section 3.1.2.2).

Surface material ("topsoil") must be salvaged from trenching and any grading activities for preservation of topsoil and fertility in agricultural areas and existing seedbanks in natural vegetation. Topsoil shall also be salvaged at stream crossings and riparian areas. Topsoil salvage may be done using a double windrow method or other approved method to separate topsoil (the top 2 to 6 inches) from the remaining spoil material. Topsoil shall be bladed to the outside of the spoil pile. Replacement of the spoil pile followed by the topsoil must then be completed. During backfilling, spoil and topsoil shall be pulled back or pushed into the trench in a manner avoiding vehicular traffic outside the ROW.

Special care shall be given in areas (e.g., topsoil removal by hand or small mechanical equipment), where sensitive annual species have been found or may occur to stockpile topsoil from this specific habitat and replace this topsoil in the same area (EIR Amendment: Appendix C, Section 3.1.2.3).

Backfilling of the trench shall be done with an auger backfiller or other suitable equipment where root systems have been preserved and/or where topsoil has been segregated. Where blading has been done, backfilling may be done with a dozer (EIR Amendment: Appendix C, Section 3.1.2.5).

After construction is completed, a final ROW cleanup shall include removal of all stakes, lath, flagging, barrels, cans, drums, accidental spills and any other refuse generated by construction. No shrub material or other plant cover shall be disturbed during this process (EIR Amendment: Appendix C, Section 3.1.3.1).

Although none is anticipated, if rodenticide and/or herbicide use is required, the pipeline company shall contact the USFWS and CDFG for review and concurrence with the proposed activity. This may result in reinitiation of consultation prior to the use of rodenticide. When use is necessary and approved, each company shall follow restrictions set by the agencies, and must follow label procedures and other restrictions mandated by the U.S. Environmental Protection Agency, California Department of Food and Agriculture, and other state and federal legislation (EIR Amendment: Appendix C, Section 3.1.4.4).

Several candidate or otherwise sensitive plants have the potential to occur along the corridor as described in the Draft EIR Amendment. These include *Arctomecon merriami*, *Castela emoryi*, *Coryphanta vivipara* var. *rosea*, *Linanthus arenicola*, *Sphaeralcea rusbyi* spp. *eremicola*, and *Stipa arida* for Kern River. Only *Sphaeralcea* and *Stipa* were found during the surveys along the Kern River route. Additionally, other sensitive annual species may be located during new springtime surveys if substantial rain occurs in the 1990-1991 winter season. The following measures shall be taken:

Preconstruction surveys shall take place during the months of March to June to identify and flag all sensitive plant species at known occurrences and in potential

habitat on the ROW and access points. These plants shall be avoided wherever feasible.

Cactus, Joshua trees, and other perennial species that would be lost during construction shall, where feasible, be transplanted to adjacent locations or replaced on the ROW after completion of construction. The guidelines for the feasibility of any transportation of these plants and the location where they would be replanted shall be determined in consultation with the Agencies at least 30 days prior to initiation of construction.

The top two inches of top soil in all known habitat for sensitive annual species shall be removed by hand or small equipment. No reseeding in the immediate vicinity shall be permitted (EIR Amendment: Appendix C, Section 3.2.2.3).

Utilization of these mitigation measures should reduce impacts to sensitive plant communities; however, significant impacts will still occur as a result of construction.

ALTERNATIVES

No Project Alternative

While the EIR does not address whether the No Project Alternative would result in greater or lesser vegetation impacts, it is assumed that by not building the project would result in fewer impacts. However, the No Project Alternative would not provide important benefits to the State of California which would result from operation of the Kern River Pipeline, particularly with respect to additional tax based revenues associated with the construction and operation of the facility, air quality benefits in the Kern County region, and a lessened dependence on foreign oil sources as a result of the Enhanced Oil Recovery goals of the project.

No Action Alternative

While the EIR does not address whether the No Action Alternative would result in greater or lesser vegetation impacts, it is assumed that the building of the Kern River project as originally proposed would result in increased vegetation related impacts due to the increased length of pipeline construction across the State of California.

PGT/PG&E Alternative

While the EIR does not address whether the PGT/PG&E Alternative would result in greater or lesser vegetation impacts, the CPUC Final EIR indicated that no significant impacts to terrestrial vegetation would occur as a result of the building of the project. However, the PGT/PG&E Alternative would not overlap with the proposed Joint Mojave-Kern River Proposal and would not serve the same gas market place. As a result the feasibility of the

PGT/PG&E alternative must be questioned. In order for the PGT/PG&E Alternative to be feasible an unknown amount of additional construction would have to be undertaken.

Alternative Energy Sources

While the EIR does not address whether the utilization of Alternative Energy Sources would result in greater or lesser impacts, its utilization would result in fewer related impacts in the short-term. The Alternative Energy Sources Project would not result in significant long-term benefits due to the lack of adequate supplies of energy. Utilization of fuels other than natural gas would not provide important benefits to the State of California which would result from operation of the Kern River Pipeline, particularly with respect to additional tax based revenues associated with the construction and operation of the facility, air quality benefits in the Kern County region, and a lessened dependence on foreign oil sources as a result of the Enhanced Oil Recovery goals of the project.

KERN RIVER

TERRESTRIAL BIOLOGY

WILDLIFE: Construction and operation

- Impact:** Loss of sensitive wildlife habitat or disturbance to sensitive wildlife species could occur as a result of the construction of the pipeline.
- Finding:**
- A) Changes or alteration have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.
 - B) Such changes or alterations are within the responsibility or jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by other such agencies or can or should be adopted by other such agencies. (California counties; Bureau of Land Management (BLM); Federal Energy Regulatory Commission (FERC)).
 - C) Specific economic, social or other considerations make infeasible the mitigation measures or project alternatives identified in the Final EIR.

FACTS SUPPORTING FINDING:

Construction of the pipeline will involve clearing a minimum 75 foot ROW with heavy earth moving equipment. Above-ground obstacles such as trees, brush and boulders are removed and any stumps or roots in the ditch line are taken out. After clearing, the ROW is graded and leveled as necessary for vehicle and equipment operation. These operations would generally remove all wildlife habitat, destroy dens or burrows and could kill most small mammals, and reptiles with limited mobility, in the 75 foot ROW corridor. Kern River has agreed to reduce this construction impact to the maximum extent possible by utilizing clearing methods which reduce the amount of impact to wildlife habitat. In addition to these impacts, certain portions of the route such as stockpile areas, stream and road crossings, etc., may require additional construction space. These areas have been identified by Kern River.

Construction in general would cause displacement of large mammals, birds and reptiles from the area for the duration of the construction. Additionally, the ROW and construction ditch may temporarily be a barrier to normal movement patterns and may separate animals from habitat requirements such as watering holes. Increased use of vehicles and human access into previously remote areas could increase the risk of wildlife harassment, a significant impact if sensitive species are killed or disturbed.

Loss of wildlife habitat would be significant along the Kern River route in California, in desert tortoise habitat areas, since revegetation could take up to 50 years. Loss of individual animals of sensitive species is also considered a significant impact.

Because of the linear nature of the pipeline, many government agencies have land use responsibility and jurisdiction over the project and thus can require mitigation measures as a part of ROW or construction permits or grants. San Bernardino County would have jurisdiction over private lands along the pipeline route while the BLM administers the federal lands in the desert. The U.S. Fish and Wildlife Service (USFWS) may require stipulations to protect certain wildlife species on federal lands and the California Department of Fish and Game has to enforce certain protections for state-listed or otherwise state protected wildlife species.

A number of mitigation measures have been developed in the FEIR/S and in the EIR Amendment to reduce impacts to sensitive wildlife species habitat and individual sensitive species. These measures are available for appropriate agencies as a method of reducing impacts of ROW construction. A listing of the measures are presented below.

The applicant shall conduct a preliminary survey using a competent wildlife biologist to identify any raptor nests within the area of concern. All raptor nests found within the ROW shall be avoided. Construction activities shall be scheduled so that they do not conflict with raptors nesting within 0.5 mile of the proposed alignment. The appropriate state or federal agency has guidelines defining calendar dates when activity should not occur for these species (FEIR/S Mitigation Measure #75).

Impacts to high interest species could be sufficiently mitigated through scheduling construction activities so that they do not conflict with resident wildlife during times of high stress. The appropriate state or federal management agency has guidelines defining calendar dates when activity should not occur for the species in question. Scheduling for construction may vary with the environment and climatological circumstances for any given year (FEIR/S Mitigation Measure #76).

The applicant shall prohibit vehicle operation off the ROW by construction workers, including construction work and employee access, except where specified by the landowner or land management agency or where roads already exist (FEIR/S Mitigation Measure #77).

Limit speed of vehicles along the ROW and access roads to 20 mph in sensitive habitats that support species of special concern with limited home ranges and mobility, e.g., the blunt-nosed leopard lizard and the desert tortoise. Construction and maintenance employees shall also be advised that care should be exercised when commuting to and from the project area to reduce road mortality (FEIR/S Mitigation Measure #78).

The applicant shall conduct detailed surveys prior to construction as directed by the appropriate governmental agencies in order to identify precise locations of viable populations. Surveys shall be conducted at the appropriate season and time to ensure that targeted species can be enumerated. The applicant shall utilize survey results to avoid or

alleviate impacts that would likely result in the loss of individuals of species of special concern (FEIR/S Mitigation Measure #82).

The length and duration of open trenches shall be kept to the minimum extent feasible. Limiting the length and duration of open trenches in areas of sensitive species shall be developed on a site-specific/species-specific basis. The amount of open ditch and duration of open ditch in areas of sensitive species shall be governed by cooperation of applicants and appropriate land management/wildlife agencies. Before backfilling, the trench shall be inspected for trapped animals. All such animals shall then be released in the same general locality, but beyond the area of disturbance (FEIR/S Mitigation Measure #86).

Trenches shall be inspected daily for species of special concern that might have fallen into the trenches. Any species of special concern found should be handled in accordance with prearranged agreements with the appropriate agencies (FEIR/S Mitigation Measure #87).

Access to the ROW shall be restricted wherever feasible by constructing barricades, fences with locked gates at road intersections, and by posting signs. State wildlife agencies, as well as federal agencies, shall be consulted to help identify and establish wildlife management areas. Vehicle access (except for administrative purposes) to these areas shall be restricted. On federal land, as directed by the Forest Service/BLM, temporary and/or permanent structures shall be installed at specific locations along the ROW and other disturbed sites to prevent off-road vehicle access (FEIR/S Mitigation Measure #88).

All disturbed designated critical habitat and habitat suitable for species of special concern shall be revegetated to predisturbance levels following guidelines formulated in consultation with the appropriate governmental agencies (FEIR/S Mitigation Measure #88).

To minimize permanent and temporary construction disturbances, project-related vehicle traffic, construction activities, and equipment storage shall be restricted to established roads, designated access roads, the construction ROW, storage areas, staging and parking areas, and other designated project areas including the placement of portable restroom facilities. Off-road traffic outside of designated areas shall be prohibited. Parking, storage, and other areas shall be designated by flagged lath stakes at least 24 inches above ground height placed in line of sight with a maximum spacing of 200 ft. These areas shall be examined during preconstruction surveys for state and/or federally listed species, and shall be established in locations disturbed by previous activities, to the extent possible. The construction ROW shall also be clearly marked at the centerline and outside boundaries. The outside boundaries of the ROW shall be staked with at least 24 inch-tall flagged lath at a maximum interval of 200 ft prior to construction. If construction activities are repeatedly documented outside of these flagged areas, the outer boundaries of the ROW must be delineated by a continuously taped boundary.

All access roads, both existing and proposed, shall be flagged. Only flagged access roads shall be used.

Unauthorized, public off-road vehicle use of the ROW, staging areas, and access roads by the construction crews shall be prevented by signs and monitoring by construction monitors. After construction is completed, unauthorized vehicle use shall, to the maximum extent practicable be prevented by physical barriers and signs.

Only permitted authorized vehicles which have been inspected to insure fire safety requirements shall be permitted on the ROW.

Project-related vehicles shall observe a 20 mph speed limit in all project areas within listed species habitat, except on county, state, or federal highways. Speed limits shall be assessed by the environmental monitors and reported to the construction supervision and Project Environmental Coordinator for corrective action. Construction activities, exclusive of identified night maintenance and security activities shall be limited to daylight hours, except for travel to and from the construction sites (EIR Amendment: Appendix C, Section 3.1.2.1).

Trench depths will in general range from 4 to 8 ft. The trench must be backfilled as quickly as possible following lowering of the pipe. The maximum length of open trench at any one time shall not exceed 10 miles. For trenches not filled at the end of the day, escape ramps for wildlife shall be installed at distances no greater than 0.25 mile apart.

Open, active work areas and trenches within listed species habitat shall be inspected by environmental monitors every morning (no later than one hour after sunrise) and immediately prior to initiation of daily construction activities, every evening (no more than 1/2 hour after sunset), and periodically (every 2-4 hours) throughout the day. This shall be accomplished seven days a week when open trenches are present. Environmental monitors shall remove any trapped state and/or federally listed animals from the areas as described under species-specific mitigations. A Memorandum of Understanding from the California Department of Fish and Game and a federal permit from the U.S. Fish and Wildlife Service must be obtained to handle the animals.

When blasting is required for trench excavation, mats, shields, or earth padding shall be used to protect sensitive vegetation as well as personnel and nearby structures. Listed species of burrowing animals shall be removed from the blast area and up to 50 ft from the ROW in areas to be blasted. Burrows of listed species 50-200 ft from the blasting zone shall be flagged by an environmental monitor prior to blasting and shall be surveyed afterward. Burrows of listed species which collapse as a result of blasting shall be hand-dug to remove any trapped animals (EIR Amendment: Appendix C, Section 3.1.2.4).

All open construction pipes, culverts, or similar structures stored in stockpile areas or on the ROW for overnight periods shall be inspected for small mammals or reptiles (e.g. San Joaquin kit fox, desert tortoise) before the pipe is buried, capped, or otherwise used or moved in any way. All in-place pipeline segments shall be capped daily until backfilled to prevent entry of animals. Checks around vehicles and other equipment before moving or operating equipment for other sensitive wildlife species shall also be completed prior to moving. If a state and/or federally listed species is identified during these inspections, only

an environmental monitor may be utilized to remove the animal (EIR Amendment: Appendix C, Section 3.1.2.6).

To prevent harassment, mortality, or destruction of dens/burrows of wildlife species, pets shall not be allowed on the ROW, staging areas, access roads or any other sites required for construction activities. Firearms shall also be prohibited in the same areas. Compliance with these restrictions is mandatory. No unauthorized construction workers shall be permitted off of the established ROW at any time. Unauthorized workers shall not be permitted at construction areas during non-scheduled hours (EIR Amendment: Appendix C, Section 3.1.2.7).

To avoid attracting species of concern and potential predators, all food-related trash and litter (wrappers, cans, bottles, food scraps) shall be placed in closed containers and disposed of daily. The working ROW of each spread shall be policed daily to remove any trash or litter which may not have been disposed of properly. Food items may attract wildlife species onto the project site at night, consequently exposing them to construction-related or other types of hazards (EIR Amendment: Appendix C, Section 3.1.2.8).

Hazardous materials that are most likely to be used in construction areas include explosives, fuels (gasoline and diesel), lubricants, and solvents. Refueling and storage of these materials shall occur in previously disturbed areas and not be allowed within 200 yards of a flagged sensitive plant species or sensitive wildlife habitat feature (e.g., den, burrow, etc.), nor within 200 yards of a perennial stream or riparian habitat. Areas where refueling or storage of hazardous materials is prohibited shall be marked by the environmental monitors. The storage of these materials near streams shall be consistent with CDFG code 5650 (EIR Amendment: Appendix C, Section 3.1.2.9).

No intentional killing or collection of either plants or wildlife shall be permitted. If wildlife species, e.g., rattlesnakes enter the construction corridor, they shall be removed by a qualified environmental monitor. No intentional damage to trees or other vegetation shall be permitted outside of the construction ROW; this shall include the collection of plants including cacti without prior authorization (EIR Amendment: Appendix C, Section 3.1.2.11).

The objective of post-construction access control is to implement procedures to limit access on the permanent ROWs and thus prohibit a new travel corridor after construction in order to limit additional intrusion into wildlife habitat and speed recovery and revegetation of the ROW. Approved means of access shall be a component of environmental training for operational personnel.

Required inspection of the ROW shall be conducted by air to detect encroachment by unauthorized vehicles or machinery, damage to equipment that may not be detected by instrumentation, and success of erosion control and revegetation. This shall be supplemented by required Department of Transportation inspections on foot. Travel by maintenance crews shall be restricted to existing access roads. Maintenance vehicles must

avoid sensitive areas that have been designated in the post-construction monitoring program.

The permanent ROW may be used to access the pipeline in emergency situations as defined under conditions stipulated by the Agencies. Damage to vegetation on the ROW shall be fixed and the ROW restored as soon as possible following the emergency. The appropriate agencies shall be notified.

Signs shall be posted indicating the ROW is closed to vehicles. The signs shall state "Pipeline Right-of-Way Closed To All Vehicles To Protect Plants and Wildlife". Intersection of existing roads with the permanent ROW shall be clearly marked with signs identifying the presence of a high pressure pipeline. Earthen berms shall be placed at all intersections with access to the ROW where authorized by landowners. Water bars and rock mulches installed on the ROW during reclamation may also serve to deter vehicle use of the ROW (EIR Amendment: Appendix C, Section 3.1.3.3).

Populations of or potential habitat for desert tortoise were found along the Kern River Pipeline between MP 541 and MP 635. Mitigation requirements and procedures are outlined below for the species. Specific details on the handling procedures for desert tortoise are presented below.

- o All personnel handling desert tortoises shall approved by the U.S. Fish and Wildlife Service and the California Department of Fish and Game. Each monitor shall be permitted by the USFWS and the CDFG to handle tortoises. Additionally, each monitor shall undergo an agency mandated training program in the handling of desert tortoises. A handbook shall also be developed and approved by the Agencies and distributed to each monitor detailing survey, monitoring, and handling requirements.
- o Based on current USFWS and CDFG biological opinions, construction of pipelines within fair to good quality tortoise habitat as defined by the desert tortoise survey maps submitted by Kern River shall be conducted between March 15 and June 15 (spring activity period) when the tortoises are active and can be easily transported off-site with presumably less mortality than removing the animals during months when they are inactive. Areas required for this period of construction include: MPs 541.7-547; 553-584.0; 595.0-634.0.

Construction shall start in these areas no earlier than March 15 and each company shall submit to the responsible agencies a construction schedule and location of pipeline segments to accomplish the construction no later than February 15. If construction delays are encountered which will require construction in these areas beyond June 15, responsible agencies shall be notified at least by June 1 and procedures outlined below for collapsing of burrows and monitoring of the corridor shall be followed.

Other areas of the pipeline within tortoise habitat can be constructed when the tortoises are inactive following the set procedures provided in this document.

- o Rights-of-way shall be surveyed by qualified biologists within 48 hours before construction activities (i.e., grubbing, grading, trenching) begin to ensure maximum avoidance of impacts to desert tortoises and their burrows. All desert tortoise burrows, as well as large mammal burrows that could be used by desert tortoises, shall be flagged with a different color of flagging from that used to denote operational area boundaries. Inactive burrows shall be plugged (e.g., newspaper and earth) or collapsed. Two types of burrows shall receive special marking: active burrows; and those burrows which, because of soil types and/or historical use, represent a major energy expenditure by desert tortoises for construction. These burrows are henceforth referred to as "special resource burrows." The active and special resource burrows shall be mapped and presented to construction engineers to determine the feasibility of minor rerouting of the pipeline to avoid these burrows.
- o Burrows that cannot be avoided shall be treated as follows: between 8 and 48 hours prior to the commencement of clearing and grading activities, all burrows not designated for avoidance, except for special resource burrows, shall be excavated by hand by qualified biologists. All active burrows shall be recorded and desert tortoises that are encountered shall be moved.
- o Each desert tortoise that is encountered during clearing and construction activities shall be given an identifying number; have its sex, weight, and maximum carapace length recorded; and be permanently and uniquely marked using criteria listed on the data sheet. Identification numbers for the project, as well as those used for other nearby projects, shall be supplied by the responsible agencies. A 35mm slide shall be taken from directly above the animal to show a full view of the carapace after processing. The data sheet shall include the above information plus the location, date, time, and name of the individual collecting the data. All information shall be submitted to responsible agencies upon completion of clearing and again in the post-construction report.

Researchers shall wear disposable gloves when handling each tortoise. These gloves shall be disposed of after each tortoise is handled. Any desert tortoise that voids its cloaca while being handled or during processing shall be hydrated by an Agency approved method.

During pioneer clearing activities (i.e., the initial pass through the ROW with heavy equipment, with the intent to clear or crush vegetation), desert tortoises that are encountered shall be processed, then moved a minimum of 150 ft off the construction ROW and placed under a shrub in the shade. Desert tortoises that are encountered when the temperature exceeds 90°F shall be processed and, unless temperatures are decreasing, shall be held overnight in a clean cardboard box as detailed above and released the following morning shortly after sunrise. The

location of each tortoise that is held overnight shall be accurately located by flagging or other means, and the tortoise shall be released as close to the location it was removed from as possible. Desert tortoises encountered within two hours before sunset shall be placed in a clean cardboard box of appropriate size with one tortoise to a box and held overnight in a cool location. The box shall be covered and kept by a designated monitor until the desert tortoise is released the following morning.

If desert tortoises are encountered on the ROW during construction, each desert tortoise shall be processed, then moved a minimum of 150 ft off the construction ROW in the direction of its travel and placed under a shrub in the shade. If appropriate shade cannot be found, the desert tortoise shall be held overnight and released as detailed above. Any desert tortoise encountered two hours before sunset shall be kept and released as detailed above. Desert tortoises that are found on the construction ROW more than three (3) times shall be penned in a temporary 10 ft by 10 ft enclosure around a burrow next to the right-of-way. This shall be removed after construction activities have ceased. Alternatively, the right-of-way may be fenced temporarily with tortoise proof fence.

- e In the event construction is delayed so that construction will occur within high quality habitats past June 15, presurveys, hand excavation of burrows, and movement of tortoises prior to June 15 shall take place. These areas shall be monitored closely to assure that tortoises do not try to reestablish burrows prior to construction.
- o Tortoises may be found in burrows which cannot be avoided, or may be found above-ground if there is a period of warm weather. Tortoises excavated from unavoidable burrows along the route shall be relocated to unoccupied natural or artificially constructed burrows immediately following excavation. The artificial or unoccupied natural burrows shall be constructed approximately 150-300 ft from the original burrow. The artificial burrow shall be a similar size, shape, and orientation to the original burrow.

Tortoises removed from occupied burrows and relocated to newly constructed burrows shall be handled using disposable surgical gloves. The gloves shall be disposed of after each handling.

- o Activities requiring a biological monitor shall include, but are not limited to: Surveying, Pioneer Clearing, Final Clearing and Grading, Ditching, Pipe Stringing and Bending, Welding, Backfilling and Taping, Hydrostatic Testing, Tie-In, and Final Cleanup (EIR Amendment: Appendix C, Section 3.2.2.1).

In addition to these measures to reduce impacts to sensitive wildlife species habitat, a habitat compensation program has been proposed to replace the habitat of the desert tortoise. It is the opinion of the CDFG, USFWS and BLM agency personnel that on-site

mitigation measures alone will not provide adequate mitigation for impact to the desert tortoise. Habitat loss due to the Kern River project will be further compensated by acquisition of habitat off-site which supports the species, and the management of this habitat for wildlife enhancement purposes in perpetuity. The off-site compensation acreages have been calculated based on acres of habitat impacted, the term of the impact, the condition and classification of the impacted habitat, the proposed reclamation, and other factors.

These measures would eliminate most significant impacts to state and federally listed species. The loss of individuals or their habitat which occurs as a result of construction would still be an unavoidable significant adverse impact.

ALTERNATIVES

No Project Alternative

While the EIR does not address whether the No Project Alternative would result in greater or lesser wildlife and wildlife habitat impacts, it is assumed that by not building the project would result in fewer impacts. However, the No Project Alternative would not provide important benefits to the State of California which would result from operation of the Kern River Pipeline, particularly with respect to additional tax based revenues associated with the construction and operation of the facility, air quality benefits in the Kern County region, and a lessened dependence on foreign oil sources as a result of the Enhanced Oil Recovery goals of the project.

No Action Alternative

While the EIR does not address whether the No Action Alternative would result in greater or lesser impacts, it is assumed that the building of the Kern River project as originally proposed would result in increased wildlife related impacts due to the increased length of pipeline construction across the State of California.

PGT/PG&E Alternative

While the EIR does not address whether the PGT/PG&E Alternative would result in greater or lesser wildlife impacts, the CPUC Final EIR indicated that no significant unavoidable impacts to wildlife would occur as a result of the building of the project. However, the PGT/PG&E Alternative would not overlap with the proposed Joint Mojave-Kern River Proposal and would not serve the same gas market place. As a result the feasibility of the PGT/PG&E alternative must be questioned. In order for the PGT/PG&E Alternative to be feasible an unknown amount of additional construction would have to be undertaken.

Alternative Energy Sources

While the EIR does not address whether the utilization of Alternative Energy Sources would result in greater or lesser impacts, its utilization would result in fewer related impacts in the short-term. The Alternative Energy Sources Project would not result in significant long-term benefits due to the lack of adequate supplies of energy. Utilization of fuels other than natural gas would not provide important benefits to the State of California which would result from operation of the Kern River Pipeline, particularly with respect to additional tax based revenues associated with the construction and operation of the facility, air quality benefits in the Kern County region, and a lessened dependence on foreign oil sources as a result of the Enhanced Oil Recovery goals of the project.

KERN RIVER

SOCIOECONOMICS: Construction

Impact: Housing shortages and effects on tourism may occur due to construction workers needs.

Finding: A) Changes or alteration have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

B) Such changes or alterations are within the responsibility or jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by other such agencies or can or should be adopted by other such agencies. (California counties; Bureau of Land Management (BLM); Federal Energy Regulatory Commission (FERC)).

FACTS SUPPORTING FINDING:

Housing problems would occur along the Kern River pipeline route within the State of California. The FEIR/S identifies communities with accommodations within commuting distances of the pipeline route. Very few areas for accommodation exist along the Kern River route between Las Vegas, Nevada and Barstow, California. This distance represents approximately 130 miles with virtually no accommodations. The impact of approximately 400 construction workers in the Barstow area may result in a severe strain on the motel, rental housing and R.V. sites available in the area. These problem will be further exacerbated if construction were to occur during the peak tourist season.

Several mitigation measures have been developed to reduce the impact of construction related housing shortages.

Construction of the pipeline shall be scheduled to avoid peak tourist seasons in the affected area if possible (FEIR/S Mitigation Measure #94).

In rural areas, workers should consider housing and services in larger, more distant communities. Project employees may be able to travel to and from construction areas together (FEIR/S Mitigation Measure #95).

To further mitigate housing impacts in rural areas or in crowded tourist areas, workers should try to reside in temporary trailer camps (FEIR/S Mitigation Measure #96).

Implementation of these mitigation measures should reduce impacts to non-significant levels.

KERN RIVER

CULTURAL RESOURCES: Construction

Impact: Potential disturbance to/at least 21 sites eligible for listing on the National Register of Historic Places.

Finding:

A) Changes or alteration have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

B) Such changes or alterations are within the responsibility or jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by other such agencies or can or should be adopted by other such agencies. (California counties; Bureau of Land Management (BLM); Federal Energy Regulatory Commission (FERC)).

C) Specific economic, social or other considerations make infeasible the mitigation measures or project alternatives identified in the Final EIR.

FACTS SUPPORTING FINDING:

The criteria for evaluating cultural resources on federal lands and lands impacted by federally funded or licensed projects are the eligibility criteria of the National Register of Historic Places (NRHP). The criteria apply to resources (prehistoric and historic sites) significant to the national, regional, state, or local levels. Adverse effects on resources, either direct or indirect, are considered for sites listed on the NRHP or which meet the criteria of eligibility.

For the purposes of the California Environmental Quality Act (CEQA), the criteria for evaluating cultural resources on state and private lands in California are significance criteria listed in Appendix K of the CEQA Guidelines.

Federal agencies cannot authorize federally licensed projects without prior compliance with Section 106 of the National Historic Preservation Act. This involves consultation with the State Historic Preservation Office (SHPO) and the Advisory Council on Historic Preservation to determine the existence and significance of cultural resources sites and the development of procedures to mitigate adverse effects.

Cultural resources impacted by the Kern River proposal in California include archaeological and historical sites that are located in areas which would be directly or indirectly affected by project construction and operation. Direct impacts would result from actual surface disturbance of a site's spatial configurations or stratigraphy during facilities construction

or use. Construction and/or maintenance activities would destroy cultural resources during the clearing, grading ditching, hauling stringing and placement of pipe, as well as during backfilling. Other impacts include disturbances associated with vehicular activity associated with access roads, storage facilities, parking areas etc.

Indirect impacts refer to the increased potential for site disturbances due to a general intensification of the land use activities in the area surrounding the cultural sites. The construction of the pipeline may result in increased access into an area where cultural resources could be impacted by intentional disturbances (e.g., unauthorized excavation) or unintentional disturbances (e.g., off-road vehicle use).

Both prehistoric and historic period cultural resources were documented along the Kern River route in California. Forty-six resources, primarily prehistoric quarries and lithic scatters were identified. Of the 46 sites recorded, 21 were recommended as eligible to the NRHP. Of the 21 eligible resources that would be potentially affected by the project, avoidance has been recommended for 11 of the sites. Data recovery has been recommended at sites that qualify for the National Register based on their information potential and where avoidance is infeasible.

San Bernardino County would have jurisdiction over private lands along the Kern River route, while the BLM would administer the federal lands along the route.

Mitigation measures have been developed which were designed to reduce impacts to cultural resources. These measures included conduct of a records search to determine the presence of known cultural resources along the proposed route; an intensive 100 percent inventory of the Kern River route; preparation of a survey report assessing the significance of the sites identified and if necessary a testing plan to determine the eligibility of a property; a data recovery plan to reduce impacts to eligible sites which cannot be avoided; and a plan for monitoring of construction in areas suspected of containing buried cultural resources and the treatment of those sites. Kern River has completed all of the measures discussed above with the exception of the data recovery plan and the monitoring of construction.

Implementation of these measures should reduce significant impacts; however, the data recovery activities at sites will still result in unavoidable adverse impacts to cultural resources.

ALTERNATIVES

No Project Alternative

While the EIR does not address whether the No Project Alternative would result in greater or lesser impacts to cultural resources, it is assumed that by not building the project would result in fewer impacts. However, the No Project Alternative would not provide important benefits to the State of California which would result from operation of the Kern River Pipeline, particularly with respect to additional tax based revenues associated with the construction and operation of the facility, air quality benefits in the Kern County region, and a lessened dependance on foreign oil sources as a result of the Enhanced Oil Recovery goals of the project.

No Action Alternative

While the EIR does not address whether the No Action Alternative would result in greater or lesser impacts, it is assumed that the building of the Kern River project as originally proposed would result in increased impacts to NRHP eligible cultural resources due to the increased length of pipeline construction across the State of California.

PGT/PG&E Alternative

While the EIR does not address whether the PGT/PG&E Alternative would result in greater or lesser impacts to cultural resources, the CPUC Final EIR indicated that only two NRHP listed or eligible sites would occur as a result of the building of the project; a complete inventory of the route had not yet been completed. However, the PGT/PG&E Alternative would not overlap with the proposed Joint Mojave-Kern River Proposal and would not serve the same gas market place. As a result the feasibility of the PGT/PG&E alternative must be questioned. In order for the PGT/PG&E Alternative to be feasible an unknown amount of additional construction would have to be undertaken.

Alternative Energy Sources

While the EIR does not address whether the utilization of Alternative Energy Sources would result in greater or lesser impacts, its utilization would result in fewer related impacts in the short-term. The Alternative Energy Sources Project would not result in significant long-term benefits due to the lack of adequate supplies of energy. Utilization of fuels other than natural gas would not provide important benefits to the State of California which would result from operation of the Kern River Pipeline, particularly with respect to additional tax based revenues associated with the construction and operation of the facility, air quality benefits in the Kern County region, and a lessened dependance on foreign oil sources as a result of the Enhanced Oil Recovery goals of the project.

KERN RIVER

PALEONTOLOGY: Construction

Impact: Potential disturbance to significant paleontologic formations could occur along 35 miles of the Kern River route.

Finding: A) Changes or alteration have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

B) Such changes or alterations are within the responsibility or jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by other such agencies or can or should be adopted by other such agencies. (California counties; Bureau of Land Management (BLM); Federal Energy Regulatory Commission (FERC)).

FACTS SUPPORTING FINDING:

Paleontological resources were examined based on a records and literature update and field assessment of the entire Kern River pipeline route in California. The results of these studies indicated that significant paleontologic resources exist within the construction ROW of the proposed project. Approximately 35 miles of the route within California contain paleontologically significant deposits that would be adversely affected by construction of the pipeline.

Mitigation measures have been proposed to reduce these impacts to significant paleontologic deposits. The FEIR/S recommended that pre-construction surveys be conducted to determine the presence of significant paleontologic remains; to develop site-specific mitigation measures in areas where significant remains were identified; to implement those measure during the construction phase; and to monitor construction activities in areas determined to potentially contain significant fossil remains.

Implementation of these measures should result in a reduction of impacts to paleontological remains to non-significant levels.

MOJAVE

- GEOLOGY:** Operation
- Impact:** Geologic and seismologic hazards may result in damage to the pipeline and related facilities in the vicinity of the Ludlow, Pisgah and Calico Faults.
- Finding:** A) Changes or alteration have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.
- B) Such changes or alterations are within the responsibility or jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by other such agencies or can or should be adopted by other such agencies. (California counties; Bureau of Land Management (BLM); Federal Energy Regulatory Commission (FERC)).

FACTS SUPPORTING THE FINDING:

Although it is difficult to quantify the probability of surface fault rupture, it is generally accepted that the more recently a fault has moved, the more likely it is to move again in any given period of time in the future. All faults with evidence of displacement during Quaternary times were examined. The State of California Division of Mines and Geology (CDMG) also identifies faults which are judged to be sufficiently capable of surface rupture in the short-term and thus require special study and design before facilities can be built in the vicinity. Among the criteria, evidence of Holocene offset is sufficient to cause the fault to be zoned.

Along the Mojave route in California, the EIR identified three faults within the portion of the route now under study that showed evidence of Quaternary movement (FEIR/S I, Table 3.1-6). Field investigations of these faults indicated that only the Pisgah and Calico Faults had Holocene activity and would be crossed by the present pipeline alignment.

The Pisgah Fault is located at MP 98 of the Mojave Pipeline route. The Pisgah Fault is a right-lateral strike-slip fault with the potential for 7.5 feet of lateral displacement. The estimated maximum magnitude earthquake for rupture along the fault is 6.9.

The Calico Fault is located near the intersection of Interstate Highway 15 and Newberry Road near Daggett, California between MP 130 and 134. The Calico Fault is a right-lateral strike-slip fault zone about 0.6 mile wide with evidence of repeated Holocene activity. Three splays of the fault were located which cross the alignment, the main trace of the Calico Fault and two fault subsidiaries to the main trace. Potential displacements have been estimated to be seven feet on the main trace and five feet on a subsidiary fault.

Because of the linear nature of the pipeline, many government agencies have land use responsibility and jurisdiction over the project, and thus, can require mitigation measures as part of the right-of-way (ROW) or construction permit or grant. In California, San Bernardino County would have jurisdiction over private lands along the pipeline route, while the BLM administers the public lands associated with the Mojave route.

The following mitigation measures were suggested in the FEIR/S, which each of the above agencies as appropriate, can require to reduce the impact of ROW construction.

Detailed geologic, seismologic, and geotechnical studies shall be conducted by the applicant to identify and characterize geologic hazards as appropriate. In areas where hazards are identified, information shall be collected to aid in the design and construction of the pipeline and ancillary facilities. In general, care shall be taken during construction to minimize surface disturbance and related soil erosion, and not to alter the drainage of the affected area (FEIR/S Mitigation Measure #4).

Additional studies shall be conducted by the applicant to evaluate potential seismological hazards along the proposed routes. The potential for surface offset along Quaternary faults shall be evaluated in detail so that appropriate pipeline crossings can be designed. Field studies shall be completed to delineate the areas where movements may occur (FEIR/S Mitigation Measure #5).

Results of the proposed applicants' geotechnical studies indicated in Nos. 4 and 5 above shall be submitted to the SLC. The following geotechnical studies and mitigating design measures shall be submitted for review and approval by the SLC staff prior to implementation of these measures. Such studies shall include identification of: (a) all Holocene faults crossed by the proposed facilities; (b) all areas where potentially liquefiable deposits are crossed and likely effects on the facilities; and (c) all landslides or areas of significant slope instability crossed by, or possibly affecting, the proposed facilities.

Specific mitigating measures shall be developed to minimize the potential for slope failures, ruptures or failure of pipeline facilities wherever such failure could result in direct or indirect hazards to public safety and environmental resources. The nature and locations of significant geologic hazards shall be considered in the siting of block valves. The applicant shall also consider use of automatic or remote-controlled block valves in areas which may be inaccessible following a major earthquake or landslide.

Studies shall be done in sufficient detail to allow characterization of the particular geologic hazard using state-of-the-art techniques. Sufficient justification should be included for not implementing specific mitigating measures in areas identified as subject to significant geologic hazards (FEIR/S Mitigation Measure #8).

Implementation of these measures have been completed by Mojave (Woodward-Clyde Consultants, 1989) and will result in minimization of the potential for serious damage to the pipeline and related facilities. This has been accomplished by recommending that faults that require mitigation be flagged in the field prior to excavation; examination and

mapping of the pipeline trench to locate fault crossings and to confirm fault parameters for the mitigation design at each crossing by a seismic geologist; and inspection of the pipeline by a seismic geologist or earthquake engineer following earthquakes larger than a magnitude of 5 that occur within 50 miles of the pipeline.

MOJAVE

- GEOLOGY:** Operation
- Impact:** Liquefaction could occur in the vicinity of Troy Lake in conjunction with a seismic episode at the Calico Fault.
- Finding:** A) Changes or alteration have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.
- B) Such changes or alterations are within the responsibility or jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by other such agencies or can or should be adopted by other such agencies. (California counties; Bureau of Land Management (BLM); Federal Energy Regulatory Commission (FERC)).

FACTS SUPPORTING THE FINDING:

There may be a significant potential for liquefaction where the route crosses playa lakes in the Mojave Desert. Liquefaction is a condition in which an earthquake-induced increase of pore pressure in saturated loose, granular sediments causes a temporary but complete loss of shear strength. The potential conditions of greatest concern for the proposed pipeline would be lateral spreading, which may carry the pipeline downslope and result in rupture. Another effect on the pipeline would be flotation which could result in exposure of the pipeline and possible rupture.

Because of the linear nature of the pipeline, many government agencies have land use responsibility and jurisdiction over the project, and thus, can require mitigation measures as part of the right-of-way (ROW) or construction permit or grant. In California, San Bernardino County would have jurisdiction over private lands along the pipeline route, while the BLM administers the public lands associated with the Mojave route.

The following mitigation measures were suggested in the FEIR/S, which each of the above agencies as appropriate, can require to reduce the impact of geologic activities on operation of the pipeline.

Detailed geologic, seismologic, and geotechnical studies shall be conducted by the applicant to identify and characterize geologic hazards as appropriate. In areas where hazards are identified, information shall be collected to aid in the design and construction of the pipeline and ancillary facilities (FEIR/S Mitigation Measure #4).

Results of the proposed applicants' geotechnical studies indicated in No. 4 shall be submitted to the SLC. The following geotechnical studies and mitigating design measures shall be submitted for review and approval by the SLC staff prior to implementation of

these measures. Such studies shall include identification of: (a) all Holocene faults crossed by the proposed facilities; (b) all areas where potentially liquefiable deposits are crossed and likely effects on the facilities; and (c) all landslides or areas of significant slope instability crossed by, or possibly affecting, the proposed facilities.

Specific mitigating measures shall be developed to minimize the potential for slope failures, ruptures or failure of pipeline facilities wherever such failure could result in direct or indirect hazards to public safety and environmental resources. The nature and locations of significant geologic hazards shall be considered in the siting of block valves. The applicant shall also consider use of automatic or remote-controlled block valves in areas which may be inaccessible following a major earthquake or landslide.

Studies shall be done in sufficient detail to allow characterization of the particular geologic hazard using state-of-the-art techniques. Sufficient justification should be included for not implementing specific mitigating measures in areas identified as subject to significant geologic hazards (FEIR/S Mitigation Measure #8).

Implementation of these measures have been completed by Mojave (Woodward-Clyde Consultants, 1989) and will result in minimization of the potential for serious damage to the pipeline and related facilities. This has been accomplished by recommending that an aerial inspection of the pipeline by a seismic geologist or earthquake engineer be conducted immediately after any significant earthquake in the region to examine the route for evidence of liquefaction and possible damage to the pipeline.

Implementation of these measures should reduce impact to insignificant levels.

MOJAVE

- GEOLOGY:** Operation
- Impact:** Volcanic activity may cause damage to the pipeline in the vicinity of the Amboy and Pisgah Craters.
- Finding:** A) Changes or alteration have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.
- B) Such changes or alterations are within the responsibility or jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by other such agencies or can or should be adopted by other such agencies. (California counties; Bureau of Land Management (BLM); Federal Energy Regulatory Commission (FERC)).

FACTS SUPPORTING THE FINDING:

The Mojave Pipeline route traverses two areas of geologically recent volcanic activity. The lava fields associated with the Amboy Crater are located south of the pipeline route with the lava from future eruptions flowing away from the pipeline along nature topographic gradients. The Pisgah Crater and related volcanic areas occur between MP 110 and 122. Basalt flows from the Pisgah Crater occupy an old playa basin between Troy Lake and Lavic Lake. The route crosses the northern margin of the lava field.

The risk of volcanic activity damaging the pipeline is small. There may be a hazard due to possible recurrence of volcanism with the greatest potential for damage in a cinder cone area west of Amboy Crater.

Mitigation measures to reduce the impacts of volcanism include the investigations discussed above conducted by Woodward-Clyde consultants (1989) and examination of the pipeline and possible shut down of the line if volcanic activity occurs in the region.

Implementation of these measures should reduce impacts to insignificant levels.

MOJAVE

SOILS: Construction

Impact: Construction of the pipeline will result in a loss of topsoil due to wind and/or water erosion. Removal of vegetation and/or desert pavement will result in increased erosion. Reclamation potential of the soils along the route are generally poor due to sandy texture and/or saline alkaline conditions.

Finding: A) Changes or alteration have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

B) Such changes or alterations are within the responsibility or jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by other such agencies or can or should be adopted by other such agencies. (California counties; Bureau of Land Management (BLM); Federal Energy Regulatory Commission (FERC)).

C) Specific economic, social or other considerations make infeasible the mitigation measures or project alternatives identified in the Final EIR.

FACTS SUPPORTING FINDING:

Significant adverse impacts to soils would result from the construction of the pipeline. These impacts would consist of the permanent removal of vegetation from a portion of the ROW for at least five years. Vegetation removal could result in increased wind and/or water erosion. Furthermore the poor reclamation potentials of most of the soils along the route would preclude rapid recovery of the vegetative community.

Many government agencies have land use responsibility and jurisdiction over the project, and thus, can require mitigation measures as part of the right-of-way (ROW) or construction permit or grant. In California, San Bernardino County would have jurisdiction over private lands along the pipeline route, while the BLM administers the public lands associated with the Mojave route.

Several mitigation measures are suggested in the FEIR/S which the appropriate agencies can require to reduce the impact of pipeline construction. These measures include:

Selective salvage and replacement of topsoil (A horizon) shall be done for cultivated lands and those lands for which the land management agency or the landowner requests that topsoil be salvaged and replaced or on lands underlain by soils poorly suited or with

unsuitable reclamation potential. Topsoil shall not be used for filling of sack breakers or for padding of the trench (FEIR/S Mitigation Measure #13).

The applicant shall minimize the amount of vegetation removed, and where it is removed leave the roots intact (FEIR/S Mitigation Measure #17).

During construction of the project, on-site reclamation specialists, certified by The Soil Conservation Society of America, shall be employed by the company for each construction spread to provide direct applicable restoration procedures when special conditions are encountered, without causing construction delays (FEIR/S Mitigation Measure #19).

Where practical, as determined by the appropriate regulatory agency, the pipeline shall be located on side-slopes of less than 30 percent (FEIR/S Mitigation Measure #21).

The applicant shall minimize the areas of disturbance to a minimum necessary to construct and operate the pipeline. Steep slopes and particularly sensitive areas prone to significant impact shall be avoided where practicable (FEIR/S Mitigation Measure #24).

Soil areas with rock fragments, such as very coarse gravel, cobble or stone scattered on the surface or desert pavement conditions shall be restored as nearly as possible to the original preconstruction surface condition to blend with the adjoining area, to avoid a smooth surface ROW area, and to control accelerated erosion (FEIR/S Mitigation Measure #26).

On federal lands, a detailed site-specific geotechnical and restoration and reclamation plan shall be developed and become part of the Forest Service/Bureau of Land Management construction, operation, and maintenance (COM) plan. Because the proposed ROW is composed of many types of terrain, soils, water, bedrock, vegetation, land uses, and climatic conditions, the detailed plan shall include sets of techniques and measures tailored to each condition encountered. Local expertise and locally effective slope stabilization and reclamation methods shall be followed when the site-specific procedures for the detailed plans are developed. Site-specific geotechnical and erosion control, revegetation, and restoration measures from the plans shall be implemented under the direction of the appropriate agency official. Consultation with all appropriate state and federal agencies and other local experts will be required when developing detailed site-specific revegetation plans (FEIR/S Mitigation Measure #27).

All topsoil on federal lands shall be conserved for reclamation requirements unless otherwise directed by the FS/BLM; excess topsoil shall be stockpiled at designated locations. Topsoil shall be removed, windrowed separately, protected, and replaced last during backfilling (FEIR/S Mitigation Measure #29).

During adverse weather conditions, as determined by the FS/BLM authorized officer, stop and start orders on federal lands shall be issued to prevent rutting or excessive tracking of soils and deterioration of vegetation in the ROW area (FEIR/S Mitigation Measure #30).

On all federal lands, design and construction of all temporary, reconstructed, and newly constructed roads shall be based on an approved COM plan transportation section and shall ensure proper drainage, minimize soil erosion, and preserve topsoil. This plan shall include clearing work, rehabilitation, and use and maintenance agreements associated with transportation needs.

Where possible, the ROW itself shall be used as an access road during the construction period. Overland access may be specified in lieu of road construction or reconstruction.

All temporary roads shall be closed and areas restored without undue delay or maintained as specified in the ROW grant(s) or special use permit(s). Restoration to near original slope and contour, including redistribution of topsoil, would be to the satisfaction of the appropriate land management agency (FEIR/S Mitigation Measure #31).

Areas with dense brush and/or boulders shall be cleared by construction machinery prior to grading and trenching. Trees and large shrubs that are too large to be bladed by a bulldozer shall be avoided or removed. Vegetation removed shall be windrowed within the ROW during construction and spread on the ROW after construction, for use as wildlife cover. The upper two to six inches of topsoil from the construction ROW requiring grading shall be removed and windrowed with the vegetation and kept separate from the remaining spoils.

Grading shall be limited to that area necessary to permit movement and operation of equipment. Grading shall not be permitted in areas where sensitive plant species occur, until after sensitive plants are removed and transplanted or soil seed banks are removed (EIR Amendment: Appendix C, Section 3.1.2.2).

Once construction is complete and the pipeline trench backfilled, the pipeline alignment and access roads shall be recontoured to approximate the original contour. Heavily compacted soils shall be loosened through the use of a cultivator or similar device. Stockpiled topsoil shall then be placed on the surface in a manner to reduce disturbance to the topsoil and recompaction of the soil. In order to reduce water erosion, slope angle and slope length shall be reduced where appropriate. In addition to the replacement of topsoil, rock and natural plant debris shall also be replaced to reduce erosion potential (EIR Amendment: Appendix C, Section 3.3.2.4).

All areas of the pipeline ROW containing native vegetation shall be restored by the replacement of the segregated topsoil onto the disturbed ROW. After return of the topsoil and the windrowed vegetation, the disturbed areas shall be imprinted. Imprinting is a shaped roller which forms funnel-shaped seedbed and seedling cradles which concentrate water and improve infiltration.

No mulching, fertilization or reseeding shall take place within the Mojave Desert beyond the replacement of the windrowed vegetation which will be mixed with the topsoil.

Restoration activities shall be monitored in the same manner as other construction activities.

Areas with a high potential; for either wind or water erosion shall be stabilized by the use of a tackifier such as J-tac (40-80 lbs/acre). The feasibility of usage shall be evaluated by the on-site biological monitoring staff and the reclamation specialist at the time of restoration (EIR Amendment: Appendix C, Section 3.3.3.1).

Utilization of all of these measures will significantly reduce impacts to soils and vegetation; however, even with the implementation of these measures, impacts to soils will remain significant.

ALTERNATIVES

No Project Alternative

While the EIR does not address whether the No Project Alternative would result in greater or lesser impacts to soils, it is assumed that by not building the project would result in fewer impacts. However, the No Project Alternative would not provide important benefits to the State of California which would result from operation of the Mojave Pipeline, particularly with respect to additional tax based revenues associated with the construction and operation of the facility, air quality benefits in the Kern County region, and a lessened dependence on foreign oil sources as a result of the Enhanced Oil Recovery goals of the project.

No Action Alternative

While the EIR does not address whether the No Action Alternative would result in greater or lesser impacts, it is assumed that the building of the Mojave project as originally proposed would result in greater impacts to soils than the route currently under consideration.

PGT/PG&E Alternative

While the EIR does not address whether the PGT/PG&E Alternative would result in greater or lesser soil erosion impacts, the CPUC Final EIR indicated that significant and unavoidable soils impacts would occur as a result of the building of the project. However, the PGT/PG&E Alternative would not overlap with the proposed Joint Mojave-Kern River Proposal and would not serve the same gas market place. As a result the feasibility of the PGT/PG&E alternative must be questioned. In order for the PGT/PG&E Alternative to be feasible an unknown amount of additional construction would have to be undertaken.

Alternative Energy Sources

While the EIR does not address whether the utilization of Alternative Energy Sources would result in greater or lesser soil erosion impacts, its utilization would result in fewer soils

related impacts in the short-term. The Alternative Energy Sources Project would not result in significant long-term benefits due to the lack of adequate supplies of energy. Utilization of fuels other than natural gas would not provide important benefits to the State of California which would result from operation of the Mojave Pipeline, particularly with respect to additional tax based revenues associated with the construction and operation of the facility, air quality benefits in the Kern County region, and a lessened dependence on foreign oil sources as a result of the Enhanced Oil Recovery goals of the project.

Route Alternatives

A number of routing alternatives were examined in the EIR. Mojave Alternative A had greater impacts to soils than the proposed routing, while Alternative B would have roughly equal impacts. Mojave has changed their routing in the FERC certificate to include Alternative B as required by mitigation measure 113.

MOJAVE

SURFACE WATER: Construction

Impact: Reduced water quality, increased sediment loading, and aggradation and degradation of stream channels due to channel bed disruption could occur during construction across the Colorado and Mojave rivers and several intermittent streams along the route.

Finding: A) Changes or alteration have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

B) Such changes or alterations are within the responsibility or jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by other such agencies or can or should be adopted by other such agencies. (California counties; Bureau of Land Management (BLM); Federal Energy Regulatory Commission (FERC)).

FACTS SUPPORTING FINDING:

The proposed crossing of the Colorado River would be on an existing bridge and thus would not result in any construction related impacts associated with sedimentation, aggradation, degradation or streambed alteration.

The proposed crossing of the Mojave River would be buried below the channel bottom at a depth below the estimated scour. If the Mojave River were flowing during the construction phase, an unlikely event, an increase in sediment load and subsequent decrease in water quality would be expected downstream.

Mitigation measures have been developed to ensure that impacts to the Mojave River as well as all intermittent streams are minimized. These measures include the following:

The applicant shall develop and implement site-specific erosion control, revegetation, and stabilization plans as soon as possible to limit soil erosion and potential sediment input. This plan must be acceptable to the appropriate regulatory agency. In addition to this plan, an anti-degradation analysis of water quality should be undertaken to assure that the highest statutory and regulatory requirements and best management practices for pollutant controls are achieved (FEIR/S Mitigation Measure #35).

The applicant shall minimize stream bank and streambed disturbance to the extent practicable. Construction impact should not exceed two weeks. Periods of low flow shall be utilized when crossing stream channels (FEIR/S Mitigation Measure #36).

Construction across intermittent and perennial streams shall be done during periods of low or no flow where practicable. Stringent water quality control measures shall be utilized on crossings made during moderate to high flow periods (FEIR/S Mitigation Measure #37).

After pipeline construction is completed, construction contractors shall stabilize disturbed areas promptly (FEIR/S Mitigation Measure #38).

The pipeline shall be buried at stream crossings below the estimated scour depths associated with a 100-year flood event. Where channel degradation during operation reduces the burial depth to less than the 100-year scour depth, the applicant shall ensure the integrity of the pipeline through reburial to the proper depth wherever feasible. Where reburial is not practicable other methods such as installation of anchors and riprapping shall be employed (FEIR/S Mitigation Measure #44).

Pipeline operators shall check the pipeline burial depth periodically at stream/channel crossings (FEIR/S Mitigation Measure #45).

Stream crossings shall be made as perpendicular to the axis of the channel as possible (FEIR/S Mitigation Measure #47).

Spoil from trench excavation shall be placed out of the stream on the banks at narrow stream crossings. Spoil shall be carefully placed downstream of the trench at wide crossings. Backfilling at streams shall be performed slowly to minimize agitation and increased sediment loading. Good quality backfill shall be placed in streams (FEIR/S Mitigation Measure #48).

Implementation of these measures should reduce impacts to surface waters to insignificant levels.

MOJAVE

SURFACE WATER: Construction and Operation

Impact: Reduction in water quality due to fuel or chemical spillage and impacts to surface water resources could occur during construction, operation and abandonment of the pipeline

Finding: A) Changes or alteration have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

B) Such changes or alterations are within the responsibility or jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by other such agencies or can or should be adopted by other such agencies. (California counties; Bureau of Land Management (BLM); Federal Energy Regulatory Commission (FERC)).

FACTS SUPPORTING FINDING:

The most significant impact on surface water would be the result of a fuel or chemical spill during construction or operation of the pipeline which could contaminate downstream water supplies. These accidental spills would generally be minor but have the potential to cause significant damage to water supplies.

Mitigation measures to reduce these impacts have been proposed which can be implemented to reduce impacts to insignificant levels. These measures include: requiring that chemicals, fuel, and lubricating oils shall not be stored near stream channels. Spill containments shall be installed or constructed around all chemical, fuel, and oil storage areas. Refueling and changing of lubricating oil shall not be done in or near stream channels, or where an accidental spill could run into a stream channel or shallow ground water zone. Any accidental spills shall be promptly cleaned up (FEIR/S Mitigation Measure #49).

Implementation of these measures should reduce impacts to insignificant levels.

MOJAVE

TERRESTRIAL BIOLOGY

VEGETATION: Construction

Impact: Loss of sensitive plant communities or individual sensitive plant species could occur as a result of the construction of the pipeline.

Finding: A) Changes or alteration have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

B) Such changes or alterations are within the responsibility or jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by other such agencies or can or should be adopted by other such agencies. (California counties: Bureau of Land Management (BLM); Federal Energy Regulatory Commission (FERC)).

C) Specific economic, social or other considerations make infeasible the mitigation measures or project alternatives identified in the Final EIR.

FACTS SUPPORTING FINDING:

Construction of the pipeline will involve clearing a minimum 75 foot ROW with heavy earth moving equipment. Above-ground obstacles such as trees, brush and boulders are removed and any stumps or roots in the ditch line are taken out. After clearing, the ROW is graded and leveled as necessary for vehicle and equipment operation. These operations would generally remove or kill all vegetation in the 75 foot ROW corridor. Mojave has agreed to reduce this construction impact to the maximum extent possible by utilizing clearing methods which reduce the amount of impact to vegetation. In addition to these impacts, certain portions of the route such as stockpile areas, stream and road crossings, etc., may require additional construction space. These areas have been identified by Mojave.

Where the pipeline route crosses through sensitive and ecologically valuable plant communities such as riparian vegetation, Sonoran creosote bush scrub, Sonoran mixed and succulent scrub, Mojavean creosote bush scrub, alkali sink scrub, desert saltbush scrub, and Mojave wash scrub ROW construction would cause significant impact. In addition, where the route would pass through areas with individuals of sensitive plant species such as crucifixion thorn, Mojave spineflower, foxtail cactus, desert cymopterus, Barstow woolly sunflower, barrel cactus, sand linanthus, Mojave monkeyflower, white-margined beardtongue, Mojave indigo bush and Mojave fishhook cactus, ROW construction would cause a significant impact.

Because of the linear nature of the pipeline, many government agencies have land use responsibility and jurisdiction over the project and thus can require mitigation measures as a part of ROW or construction permits or grants. San Bernardino County would have jurisdiction over private lands along the pipeline route while the BLM administers the federal lands in the desert. The U.S. Fish and Wildlife Service (USFWS) may require stipulations to protect certain plant communities on federal lands and the California Department of Fish and Game has to enforce certain protections for state-listed or otherwise state protected plant species.

A number of mitigation measures have been developed in the FEIR/S and in the EIR Amendment to reduce impacts to sensitive plant communities and individual plant species. These measures are available for appropriate agencies as a method of reducing impacts of ROW construction. A listing of the measures are presented below.

The applicant shall design and implement site-specific revegetation plans according to the requirements and guidelines of the land management agency (BLM or USFWS), state agency or landowner. These plans shall include the necessary topsoil replacement, seedbed preparation, mulching, fertilization, use of seed mixtures containing native species, noxious weed control and additional erosion control. Generally the revegetation objective would be to return the disturbed area to a condition that would perpetuate previous land use. Guidelines established by the SCS shall be used where the pipeline would traverse private land, and if it is agreeable to the owner. Periodic inspection of the ROW shall be conducted by the applicant and reclamation efforts enhanced where needed (FEIR/S Mitigation Measure #57).

During construction in sensitive areas, the applicant shall clear the minimum ROW width possible and minimize ROW damage where possible (e.g. not stripping vegetation less than four inches in height, leaving trees standing and/or mowing taller vegetation as opposed to clearing, the last being particularly desirable in Mojavean shrub communities). This shall include local adjustment of pipeline alignment to avoid areas with high densities of sensitive plant species or sensitive communities (FEIR/S Mitigation Measure #57).

Trees and shrubs that are not cleared shall be protected from damage during construction (FEIR/S Mitigation Measure #60).

Trench backfilling operations shall be conducted in such a manner to minimize further disturbance of vegetation (FEIR/S Mitigation Measure #61).

The applicant shall avoid, where feasible and necessary, locations of sensitive species and environmentally sensitive areas which include sensitive communities and known and suspected habitat of plant species of special concern. Specific information on sensitive areas shall be obtained by conducting field surveys along portions of the proposed route for individuals and habitat of species of concern and sensitive communities. Field surveys shall be conducted during the appropriate time of year by a qualified botanist. Where feasible, pipeline alignment shall be adjusted to miss or minimize impacts to identified individuals or habitats (FEIR/S Mitigation Measure #69).

For areas supporting sensitive plant communities or plant species of special concern, the applicant shall restrict access onto the pipeline ROW where possible, by constructing barricades, fences with locked gates or by posting with signs (FEIR/S Mitigation Measure #70).

Wetland and riparian vegetation impacted by construction or operation shall be replaced in kind (FEIR/S Mitigation Measure #71).

Removal of certain sensitive plant species from the ROW may be a way to decrease impacts to certain plant species in California. If plants are removed, replanting shall occur in suitable habitat outside the zone of potential disturbance (construction and ORV use). Such sites shall be established in consultation with the appropriate land management agencies (FEIR/S Mitigation Measure #72).

When it is not feasible to avoid areas containing plant species of special concern, the applicant shall attempt to transplant such perennial plant species back into the ROW after construction (FEIR/S Mitigation Measure #74).

To minimize permanent and temporary construction disturbances, project-related vehicle traffic, construction activities, and equipment storage shall be restricted to established roads, designated access roads, the construction ROW, storage areas, staging and parking areas, and other designated project areas including the placement of portable restroom facilities. Off-road traffic outside of designated areas shall be prohibited. Parking, storage, and other areas shall be designated by flagged lath stakes at least 24 inches above ground height placed in line of sight with a maximum spacing of 200 ft. These areas shall be examined during preconstruction surveys for state and/or federally listed species, and shall be established in locations disturbed by previous activities, to the extent possible. The construction ROW shall also be clearly marked at the centerline and outside boundaries. The outside boundaries of the ROW shall be staked with at least 24 inch-tall flagged lath at a maximum interval of 200 ft prior to construction. If construction activities are repeatedly documented outside of these flagged areas, the outer boundaries of the ROW must be delineated by a continuously taped boundary. All access roads, both existing and proposed, shall be flagged. Only flagged access roads shall be used (EIR Amendment: Appendix C, Section 3.1.2.1).

Areas with dense brush and/or boulders shall be cleared by construction machinery prior to grading and trenching. Trees and large shrubs that are too large to be bladed by a bulldozer shall be avoided or removed. Vegetation removed shall be windrowed within the ROW during construction and spread on the ROW after construction, for use as wildlife cover. The upper two to six inches of topsoil from the construction ROW requiring grading shall be removed and windrowed with the vegetation and kept separate from the remaining spoils.

Grading shall be limited to that area necessary to permit movement and operation of equipment. Grading shall not be permitted in areas where sensitive plant species occur,

until after sensitive plants are removed and transplanted or soil seed banks are removed (EIR Amendment: Appendix C, Section 3.1.2.2).

Surface material ("topsoil") must be salvaged from trenching and any grading activities for preservation of topsoil and fertility in agricultural areas and existing seedbanks in natural vegetation. Topsoil shall also be salvaged at stream crossings and riparian areas. Topsoil salvage may be done using a double windrow method or other approved method to separate topsoil (the top 2 to 6 inches) from the remaining spoil material. Topsoil shall be bladed to the outside of the spoil pile. Replacement of the spoil pile followed by the topsoil must then be completed. During backfilling, spoil and topsoil shall be pulled back or pushed into the trench in a manner avoiding vehicular traffic outside the ROW.

Special care shall be given in areas (e.g., topsoil removal by hand or small mechanical equipment), where sensitive annual species have been found or may occur to stockpile topsoil from this specific habitat and replace this topsoil in the same area (EIR Amendment: Appendix C, Section 3.1.2.3).

Backfilling of the trench shall be done with an auger backfiller or other suitable equipment where root systems have been preserved and/or where topsoil has been segregated. Where blading has been done, backfilling may be done with a dozer (EIR Amendment: Appendix C, Section 3.1.2.5).

After construction is completed, a final ROW cleanup shall include removal of all stakes, lathe, flagging, barrels, cans, drums, accidental spills and any other refuse generated by construction. No shrub material or other plant cover shall be disturbed during this process (EIR Amendment: Appendix C, Section 3.1.3.1).

Although none is anticipated, if rodenticide and/or herbicide use is required, the pipeline company shall contact the USFWS and CDFG for review and concurrence with the proposed activity. This may result in reinitiation of consultation prior to the use of rodenticide. When use is necessary and approved, each company shall follow restrictions set by the agencies, and must follow label procedures and other restrictions mandated by the U.S. Environmental Protection Agency, California Department of Food and Agriculture, and other state and federal legislation (EIR Amendment: Appendix C, Section 3.1.4.4).

Several candidate or otherwise sensitive plants have the potential to occur along the corridor as described in the Draft EIR Amendment. These include *Cymopterus deserticola*, *Penstemon albomarginatus*, *Linanthus arenicola*, *Eriophyllum mohavense*, and *Mimulus mohavensis* for the Mojave Pipeline. Additionally, other sensitive annual species may be located during new springtime surveys if substantial rain occurs in the 1990-1991 winter season. The following measures shall be taken:

Preconstruction surveys shall take place during the months of March to June to identify and flag all sensitive plant species at known occurrences and in potential habitat on the ROW and access points. These plants shall be avoided wherever feasible.

Cactus and other perennial species that would be lost during construction shall, where feasible, be transplanted to adjacent locations or replaced on the ROW after completion of construction. The guidelines for the feasibility of any transportation of these plants and the location where they would be replanted shall be determined in consultation with the Agencies at least 30 days prior to initiation of construction.

The top two inches of top soil in all known habitat for sensitive annual species shall be removed by hand or small equipment. No reseeding in the immediate vicinity shall be permitted (EIR Amendment: Appendix C, Section 3.2.2.3).

Utilization of these mitigation measures should reduce impacts to sensitive plant communities; however, significant impacts will still occur as a result of construction.

ALTERNATIVES

No Project Alternative

While the EIR does not address whether the No Project Alternative would result in greater or lesser vegetation impacts, it is assumed that by not building the project would result in fewer impacts. However, the No Project Alternative would not provide important benefits to the State of California which would result from operation of the Mojave Pipeline, particularly with respect to additional tax based revenues associated with the construction and operation of the facility, air quality benefits in the Kern County region, and a lessened dependence on foreign oil sources as a result of the Enhanced Oil Recovery goals of the project.

No Action Alternative

While the EIR does not address whether the No Action Alternative would result in greater or lesser vegetation impacts, it is assumed that the building of the Mojave project as originally proposed would result in greater impacts to vegetation than the route currently under consideration.

PGT/PG&E Alternative

While the EIR does not address whether the PGT/PG&E Alternative would result in greater or lesser vegetation impacts, the CPUC Final EIR indicated that no significant impacts to terrestrial vegetation would occur as a result of the building of the project. However, the PGT/PG&E Alternative would not overlap with the proposed Joint Mojave-Kern River Proposal and would not serve the same gas market place. As a result the feasibility of the PGT/PG&E alternative must be questioned. In order for the PGT/PG&E Alternative to be feasible an unknown amount of additional construction would have to be undertaken.

Alternative Energy Sources

While the EIR does not address whether the utilization of Alternative Energy Sources would result in greater or lesser impacts, its utilization would result in fewer related impacts in the short-term. The Alternative Energy Sources Project would not result in significant long-term benefits due to the lack of adequate supplies of energy. Utilization of fuels other than natural gas would not provide important benefits to the State of California which would result from operation of the Kern River Pipeline, particularly with respect to additional tax based revenues associated with the construction and operation of the facility, air quality benefits in the Kern County region, and a lessened dependence on foreign oil sources as a result of the Enhanced Oil Recovery goals of the project.

Route Alternatives

A number of routing alternatives were examined in the EIR. Mojave Alternative A had greater impacts to vegetation than the proposed routing, while Alternative B would have roughly equal impacts. Mojave has changed their routing in the FERC certificate to include Alternative B as required by mitigation measure 113.

MOJAVE

TERRESTRIAL BIOLOGY

WILDLIFE: Construction and operation

Impact: Loss of sensitive wildlife habitat or disturbance to sensitive wildlife species could occur as a result of the construction of the pipeline.

Finding: A) Changes or alteration have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

B) Such changes or alterations are within the responsibility or jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by other such agencies or can or should be adopted by other such agencies. (California counties; Bureau of Land Management (BLM); Federal Energy Regulatory Commission (FERC)).

C) Specific economic, social or other considerations make infeasible the mitigation measures or project alternatives identified in the Final EIR.

FACTS SUPPORTING FINDING:

Construction of the pipeline will involve clearing a minimum 75 foot ROW with heavy earth moving equipment. Above-ground obstacles such as trees, brush and boulders are removed and any stumps or roots in the ditch line are taken out. After clearing, the ROW is graded and leveled as necessary for vehicle and equipment operation. These operations would generally remove all wildlife habitat, destroy dens or burrows and could kill most small mammals, and reptiles with limited mobility, in the 75 foot ROW corridor. Mojave has agreed to reduce this construction impact to the maximum extent possible by utilizing clearing methods which reduce the amount of impact to wildlife habitat. In addition to these impacts, certain portions of the route such as stockpile areas, stream and road crossings, etc., may require additional construction space. These areas have been identified by Mojave.

Construction in general would cause displacement of large mammals, birds and reptiles from the area for the duration of the construction. Additionally, the ROW and construction ditch may temporarily be a barrier to normal movement patterns and may separate animals from habitat requirements such as watering holes. Increased use of vehicles and human access into previously remote areas could increase the risk of wildlife harassment, a significant impact if sensitive species are killed or disturbed.

Loss of wildlife habitat would be significant along the Mojave route in California, in desert tortoise habitat areas, since revegetation could take up to 50 years. Loss of individual animals of sensitive species is also considered a significant impact.

Because of the linear nature of the pipeline, many government agencies have land use responsibility and jurisdiction over the project and thus can require mitigation measures as a part of ROW or construction permits or grants. San Bernardino County would have jurisdiction over private lands along the pipeline route while the BLM administers the federal lands in the desert. The U.S. Fish and Wildlife Service (USFWS) may require stipulations to protect certain wildlife species on federal lands and the California Department of Fish and Game has to enforce certain protections for state-listed or otherwise state protected wildlife species.

A number of mitigation measures have been developed in the FEIR/S and in the EIR Amendment to reduce impacts to sensitive wildlife species habitat and individual sensitive species. These measures are available for appropriate agencies as a method of reducing impacts of ROW construction. A listing of the measures are presented below.

The applicant shall conduct a preliminary survey using a competent wildlife biologist to identify any raptor nests within the area of concern. All raptor nests found within the ROW shall be avoided. Construction activities shall be scheduled so that they do not conflict with raptors nesting within 0.5 mile of the proposed alignment. The appropriate state or federal agency has guidelines defining calendar dates when activity should not occur for these species (FEIR/S Mitigation Measure #75).

Impacts to high interest species could be sufficiently mitigated through scheduling construction activities so that they do not conflict with resident wildlife during times of high stress. The appropriate state or federal management agency has guidelines defining calendar dates when activity should not occur for the species in question. Scheduling for construction may vary with the environment and climatological circumstances for any given year (FEIR/S Mitigation Measure #76).

The applicant shall prohibit vehicle operation off the ROW by construction workers, including construction work and employee access, except where specified by the landowner or land management agency or where roads already exist (FEIR/S Mitigation Measure #77).

Limit speed of vehicles along the ROW and access roads to 20 mph in sensitive habitats that support species of special concern with limited home ranges and mobility, e.g., the blunt-nosed leopard lizard and the desert tortoise. Construction and maintenance employees shall also be advised that care should be exercised when commuting to and from the project area to reduce road mortality (FEIR/S Mitigation Measure #78).

The applicant shall conduct detailed surveys prior to construction as directed by the appropriate governmental agencies in order to identify precise locations of viable populations. Surveys shall be conducted at the appropriate season and time to ensure that targeted species can be enumerated. The applicant shall utilize survey results to avoid or

alleviate impacts that would likely result in the loss of individuals of species of special concern (FEIR/S Mitigation Measure #82).

The length and duration of open trenches shall be kept to the minimum extent feasible. Limiting the length and duration of open trenches in areas of sensitive species shall be developed on a site-specific/species-specific basis. The amount of open ditch and duration of open ditch in areas of sensitive species shall be governed by cooperation of applicants and appropriate land management/wildlife agencies. Before backfilling, the trench shall be inspected for trapped animals. All such animals shall then be released in the same general locality, but beyond the area of disturbance (FEIR/S Mitigation Measure #86).

Trenches shall be inspected daily for species of special concern that might have fallen into the trenches. Any species of special concern found should be handled in accordance with prearranged agreements with the appropriate agencies (FEIR/S Mitigation Measure #87).

Access to the ROW shall be restricted wherever feasible by constructing barricades, fences with locked gates at road intersections, and by posting signs. State wildlife agencies, as well as federal agencies, shall be consulted to help identify and establish wildlife management areas. Vehicle access (except for administrative purposes) to these areas shall be restricted. On federal land, as directed by the Forest Service/SLM, temporary and/or permanent structures shall be installed at specific locations along the ROW and other disturbed sites to prevent off-road vehicle access (FEIR/S Mitigation Measure #88).

All disturbed designated critical habitat and habitat suitable for species of special concern shall be revegetated to predisturbance levels following guidelines formulated in consultation with the appropriate governmental agencies (FEIR/S Mitigation Measure #88).

To minimize permanent and temporary construction disturbances, project-related vehicle traffic, construction activities, and equipment storage shall be restricted to established roads, designated access roads, the construction ROW, storage areas, staging and parking areas, and other designated project areas including the placement of portable restroom facilities. Off-road traffic outside of designated areas shall be prohibited. Parking, storage, and other areas shall be designated by flagged lath stakes at least 24 inches above ground height placed in line of sight with a maximum spacing of 200 ft. These areas shall be examined during preconstruction surveys for state and/or federally listed species, and shall be established in locations disturbed by previous activities, to the extent possible. The construction ROW shall also be clearly marked at the centerline and outside boundaries. The outside boundaries of the ROW shall be staked with at least 24 inch-tall flagged lath at a maximum interval of 200 ft prior to construction. If construction activities are repeatedly documented outside of these flagged areas, the outer boundaries of the ROW must be delineated by a continuously taped boundary.

All access roads, both existing and proposed, shall be flagged. Only flagged access roads shall be used.

Unauthorized, public off-road vehicle use of the ROW, staging areas, and access roads by the construction crews shall be prevented by signs and monitoring by construction monitors. After construction is completed, unauthorized vehicle use shall, to the maximum extent practicable be prevented by physical barriers and signs.

Only permitted authorized vehicles which have been inspected to insure fire safety requirements shall be permitted on the ROW.

Project-related vehicles shall observe a 20 mph speed limit in all project areas within listed species habitat, except on county, state, or federal highways. Speed limits shall be assessed by the environmental monitors and reported to the construction supervision and Project Environmental Coordinator for corrective action. Construction activities, exclusive of identified night maintenance and security activities shall be limited to daylight hours, except for travel to and from the construction sites (EIR Amendment: Appendix C, Section 3.1.2.1).

Trench depths will in general range from 4 to 8 ft. The trench must be backfilled as quickly as possible following lowering of the pipe. The maximum length of open trench at any one time shall not exceed 10 miles. For trenches not filled at the end of the day, escape ramps for wildlife shall be installed at distances no greater than 0.25 mile apart.

Open, active work areas and trenches within listed species habitat shall be inspected by environmental monitors every morning (no later than one hour after sunrise) and immediately prior to initiation of daily construction activities, every evening (no more than 1/2 hour after sunset), and periodically (every 2-4 hours) throughout the day. This shall be accomplished seven days a week when open trenches are present. Environmental monitors shall remove any trapped state and/or federally listed animals from the areas as described under species-specific mitigations. A Memorandum of Understanding from the California Department of Fish and Game and a federal permit from the U.S. Fish and Wildlife Service must be obtained to handle the animals.

When blasting is required for trench excavation, mats, shields, or earth padding shall be used to protect sensitive vegetation as well as personnel and nearby structures. Listed species of burrowing animals shall be removed from the blast area and up to 50 ft from the ROW in areas to be blasted. Burrows of listed species 50-200 ft from the blasting zone shall be flagged by an environmental monitor prior to blasting and shall be surveyed afterward. Burrows of listed species which collapse as a result of blasting shall be hand-dug to remove any trapped animals (EIR Amendment: Appendix C, Section 3.1.2.4).

All open construction pipes, culverts, or similar structures stored in stockpile areas or on the ROW for overnight periods shall be inspected for small mammals or reptiles (e.g. San Joaquin kit fox, desert tortoise) before the pipe is buried, capped, or otherwise used or moved in any way. All in-place pipeline segments shall be capped daily until backfilled to prevent entry of animals. Checks around vehicles and other equipment before moving or operating equipment for other sensitive wildlife species shall also be completed prior to moving. If a state and/or federally listed species is identified during these inspections, only

an environmental monitor may be utilized to remove the animal (EIR Amendment: Appendix C, Section 3.1.2.6).

To prevent harassment, mortality, or destruction of dens/burrows of wildlife species, pets shall not be allowed on the ROW, staging areas, access roads or any other sites required for construction activities. Firearms shall also be prohibited in the same areas. Compliance with these restrictions is mandatory. No unauthorized construction workers shall be permitted off of the established ROW at any time. Unauthorized workers shall not be permitted at construction areas during non-scheduled hours (EIR Amendment: Appendix C, Section 3.1.2.7).

To avoid attracting species of concern and potential predators, all food-related trash and litter (wrappers, cans, bottles, food scraps) shall be placed in closed containers and disposed of daily. The working ROW of each spread shall be policed daily to remove any trash or litter which may not have been disposed of properly. Food items may attract wildlife species onto the project site at night, consequently exposing them to construction-related or other types of hazards (EIR Amendment: Appendix C, Section 3.1.2.8).

Hazardous materials that are most likely to be used in construction areas include explosives, fuels (gasoline and diesel), lubricants, and solvents. Refueling and storage of these materials shall occur in previously disturbed areas and not be allowed within 200 yards of a flagged sensitive plant species or sensitive wildlife habitat feature (e.g., den, burrow, etc.), nor within 200 yards of a perennial stream or riparian habitat. Areas where refueling or storage of hazardous materials is prohibited shall be marked by the environmental monitors. The storage of these materials near streams shall be consistent with CDFG code 5650 (EIR Amendment: Appendix C, Section 3.1.2.9).

No intentional killing or collection of either plants or wildlife shall be permitted. If wildlife species, e.g., rattlesnakes enter the construction corridor, they shall be removed by a qualified environmental monitor. No intentional damage to trees or other vegetation shall be permitted outside of the construction ROW; this shall include the collection of plants including cacti without prior authorization (EIR Amendment: Appendix C, Section 3.1.2.11).

The objective of post-construction access control is to implement procedures to limit access on the permanent ROWs and thus prohibit a new travel corridor after construction in order to limit additional intrusion into wildlife habitat and speed recovery and revegetation of the ROW. Approved means of access shall be a component of environmental training for operational personnel.

Required inspection of the ROW shall be conducted by air to detect encroachment by unauthorized vehicles or machinery, damage to equipment that may not be detected by instrumentation, and success of erosion control and revegetation. This shall be supplemented by required Department of Transportation inspections on foot. Travel by maintenance crews shall be restricted to existing access roads. Maintenance vehicles must avoid sensitive areas that have been designated in the post-construction monitoring program.

The permanent ROW may be used to access the pipeline in emergency situations as defined under conditions stipulated by the Agencies. Damage to vegetation on the ROW shall be fixed and the ROW restored as soon as possible following the emergency. The appropriate agencies shall be notified.

Signs shall be posted indicating the ROW is closed to vehicles. The signs shall state "Pipeline Right-of-Way Closed To All Vehicles To Protect Plants and Wildlife". Intersection of existing roads with the permanent ROW shall be clearly marked with signs identifying the presence of a high pressure pipeline. Earthen berms shall be placed at all intersections with access to the ROW where authorized by landowners. Water bars and rock mulches installed on the ROW during reclamation may also serve to deter vehicle use of the ROW (EIR Amendment: Appendix C, Section 3.1.3.3).

Populations of or potential habitat for desert tortoise were found along the Mojave Pipeline between MP 0 and the Interconnection with the Kern River pipeline (MP 142). Mitigation requirements and procedures are outlined below for the species. Specific details on the handling procedures for desert tortoise are presented below.

- o All personnel handling desert tortoises shall approved by the U.S. Fish and Wildlife Service and the California Department of Fish and Game. Each monitor shall be permitted by the USFWS and the CDFG to handle tortoises. Additionally, each monitor shall undergo an agency mandated training program in the handling of desert tortoises. A handbook shall also be developed and approved by the Agencies and distributed to each monitor detailing survey, monitoring, and handling requirements.
- o Based on current USFWS and CDFG biological opinions, construction of pipelines within fair to good quality tortoise habitat as defined by the desert tortoise survey maps submitted by Mojave shall be conducted between March 15 and June 15 (spring activity period) when the tortoises are active and can be easily transported off-site with presumably less mortality than removing the animals during months when they are inactive. Areas required for this period of construction include: MPs 8.8-116.5 and 140.9-142 on the Mojave portion of the route.

Construction shall start in these areas no earlier than March 15 and each company shall submit to the responsible agencies a construction schedule and location of pipeline segments to accomplish the construction no later than February 15. If construction delays are encountered which will require construction in these areas beyond June 15, responsible agencies shall be notified at least by June 1 and procedures outlined below for collapsing of burrows and monitoring of the corridor shall be followed.

Other areas of the pipeline within tortoise habitat can be constructed when the tortoises are inactive following the set procedures provided in this document.

- o Rights-of-way shall be surveyed by qualified biologists within 48 hours before construction activities (i.e., grubbing, grading, trenching) begin to ensure maximum avoidance of impacts to desert tortoises and their burrows. All desert tortoise burrows, as well as large mammal burrows that could be used by desert tortoises, shall be flagged with a different color of flagging from that used to denote operational area boundaries. Inactive burrows shall be plugged (e.g., newspaper and earth) or collapsed. Two types of burrows shall receive special marking: active burrows; and those burrows which, because of soil types and/or historical use, represent a major energy expenditure by desert tortoises for construction. These burrows are henceforth referred to as "special resource burrows." The active and special resource burrows shall be mapped and presented to construction engineers to determine the feasibility of minor rerouting of the pipeline to avoid these burrows.

- o Burrows that cannot be avoided shall be treated as follows: between 8 and 48 hours prior to the commencement of clearing and grading activities, all burrows not designated for avoidance, except for special resource burrows, shall be excavated by hand by qualified biologists. All active burrows shall be recorded and desert tortoises that are encountered shall be moved.

- o Each desert tortoise that is encountered during clearing and construction activities shall be given an identifying number; have its sex, weight, and maximum carapace length recorded; and be permanently and uniquely marked using criteria listed on the data sheet. Identification numbers for the project, as well as those used for other nearby projects, shall be supplied by the responsible agencies. A 35mm slide shall be taken from directly above the animal to show a full view of the carapace after processing. The data sheet shall include the above information plus the location, date, time, and name of the individual collecting the data. All information shall be submitted to responsible agencies upon completion of clearing and again in the post-construction report.

Researchers shall wear disposable gloves when handling each tortoise. These gloves shall be disposed of after each tortoise is handled. Any desert tortoise that voids its cloaca while being handled or during processing shall be hydrated by an Agency approved method.

During pioneer clearing activities (i.e., the initial pass through the ROW with heavy equipment, with the intent to clear or crush vegetation), desert tortoises that are encountered shall be processed, then moved a minimum of 150 ft off the construction ROW and placed under a shrub in the shade. Desert tortoises that are encountered when the temperature exceeds 90°F shall be processed and, unless temperatures are decreasing, shall be held overnight in a clean cardboard box as detailed above and released the following morning shortly after sunrise. The location of each tortoise that is held overnight shall be accurately located by flagging or other means, and the tortoise shall be released as close to the location it was removed from as possible. Desert tortoises encountered within two hours

before sunset shall be placed in a clean cardboard box of appropriate size with one tortoise to a box and held overnight in a cool location. The box shall be covered and kept by a designated monitor until the desert tortoise is released the following morning.

If desert tortoises are encountered on the ROW during construction, each desert tortoise shall be processed, then moved a minimum of 150 ft off the construction ROW in the direction of its travel and placed under a shrub in the shade. If appropriate shade cannot be found, the desert tortoise shall be held overnight and released as detailed above. Any desert tortoise encountered two hours before sunset shall be kept and released as detailed above. Desert tortoises that are found on the construction ROW more than three (3) times shall be penned in a temporary 10 ft by 10 ft enclosure around a burrow next to the right-of-way. This shall be removed after construction activities have ceased. Alternatively, the right-of-way may be fenced temporarily with tortoise proof fence.

- o In the event construction is delayed so that construction will occur within high quality habitats past June 15, presurveys, hand excavation of burrows, and movement of tortoises prior to June 15 shall take place. These areas shall be monitored closely to assure that tortoises do not try to reestablish burrows prior to construction.

- o Tortoises may be found in burrows which cannot be avoided, or may be found above-ground if there is a period of warm weather. Tortoises excavated from unavoidable burrows along the route shall be relocated to unoccupied natural or artificially constructed burrows immediately following excavation. The artificial or unoccupied natural burrows shall be constructed approximately 150-300 ft from the original burrow. The artificial burrow shall be a similar size, shape, and orientation to the original burrow.

Tortoises removed from occupied burrows and relocated to newly constructed burrows shall be handled using disposable surgical gloves. The gloves shall be disposed of after each handling.

- o Activities requiring a biological monitor shall include, but are not limited to: Surveying, Pioneer Clearing, Final Clearing and Grading, Ditching, Pipe Stringing and Bending, Welding, Backfilling and Taping, Hydrostatic Testing, Tie-In, and Final Cleanup (EIR Amendment: Appendix C, Section 3.2.2.1).

In addition to these measures to reduce impacts to sensitive wildlife species habitat, a habitat compensation program has been proposed to replace the habitat of the desert tortoise. It is the opinion of the CDFG, USFWS and BLM agency personnel that on-site mitigation measures alone will not provide adequate mitigation for impact to the desert tortoise. Habitat loss due to the Mojave project will be further compensated by acquisition of habitat off-site which supports the species, and the management of this habitat for

wildlife enhancement purposes in perpetuity. The off-site compensation acreages have been calculated based on acres of habitat impacted, the term of the impact, the condition and classification of the impacted habitat, the proposed reclamation, and other factors. These measures would eliminate most significant impacts to state and federally listed species. The loss of individuals or their habitat which occurs as a result of construction would still be an unavoidable significant adverse impact.

ALTERNATIVES

No Project Alternative

While the EIR does not address whether the No Project Alternative would result in greater or lesser wildlife impacts, it is assumed that by not building the project would result in fewer impacts. However, the No Project Alternative would not provide important benefits to the State of California which would result from operation of the Mojave Pipeline, particularly with respect to additional tax based revenues associated with the construction and operation of the facility, air quality benefits in the Kern County region, and a lessened dependence on foreign oil sources as a result of the Enhanced Oil Recovery goals of the project.

No Action Alternative

While the EIR does not address whether the No Action Alternative would result in greater or lesser wildlife impacts, it is assumed that the building of the Mojave project as originally proposed would result in greater impacts to wildlife than the route currently under consideration.

PGT/PG&E Alternative

While the EIR does not address whether the PGT/PG&E Alternative would result in greater or lesser wildlife impacts, the CPUC Final EIR indicated that no significant impacts to wildlife would occur as a result of the building of the project. However, the PGT/PG&E Alternative would not overlap with the proposed Joint Mojave-Kern River Proposal and would not serve the same gas market place. As a result the feasibility of the PGT/PG&E alternative must be questioned. In order for the PGT/PG&E Alternative to be feasible an unknown amount of additional construction would have to be undertaken.

Alternative Energy Sources

While the EIR does not address whether the utilization of Alternative Energy Sources would result in greater or lesser impacts, its utilization would result in fewer related impacts in the short-term. The Alternative Energy Sources Project would not result in significant long-term benefits due to the lack of adequate supplies of energy. Utilization of fuels other than natural gas would not provide important benefits to the State of California which would result from operation of the Kern River Pipeline, particularly with respect to additional tax based revenues associated with the construction and operation of the facility,

air quality benefits in the Kern County region, and a lessened dependence on foreign oil sources as a result of the Enhanced Oil Recovery goals of the project.

Route Alternatives

A number of routing alternatives were examined in the EIR. Mojave Alternative A had greater impacts to vegetation than the proposed routing, while Alternative B would have roughly equal impacts. Mojave has changed their routing in the FERC certificate to include Alternative B as required by mitigation measure 113.

MOJAVE

SOCIOECONOMICS:Construction

Impact: Housing shortages and effects on tourism may occur due to construction workers needs.

Finding: A) Changes or alteration have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

B) Such changes or alterations are within the responsibility or jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by other such agencies or can or should be adopted by other such agencies. (California counties; Bureau of Land Management (BLM); Federal Energy Regulatory Commission (FERC)).

FACTS SUPPORTING FINDING:

Housing problems would occur along the Mojave Pipeline route within the State of California. The FEIR/S identifies communities with accommodations within commuting distances of the pipeline route. Very few areas for accommodation exist along the Mojave route between Needles and Barstow, California. This distance represents approximately 140 miles with virtually no accommodations. The impact of approximately 400 construction workers in the Barstow area may result in a severe strain on the motel, rental housing and R.V. sites available in the area. These problems will be further exacerbated if construction were to occur during the peak tourist season.

Several mitigation measures have been developed to reduce the impact of construction related housing shortages.

Construction of the pipeline shall be scheduled to avoid peak tourist seasons in the affected area if possible (FEIR/S Mitigation Measure #94).

In rural areas, workers should consider housing and services in larger, more distant communities. Project employees may be able to travel to and from construction areas together (FEIR/S Mitigation Measure #95).

To further mitigate housing impacts in rural areas or in crowded tourist areas, workers should try to reside in temporary trailer camps (FEIR/S Mitigation Measure #96).

Implementation of these mitigation measures should reduce impacts to non-significant levels.

MOJAVE

CULTURAL RESOURCES: Construction

Impact: Potential disturbance to at least two sites eligible for listing on the National Register of Historic Places.

Finding: A) Changes or alteration have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

B) Such changes or alterations are within the responsibility or jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by other such agencies or can or should be adopted by other such agencies. (California counties; Bureau of Land Management (BLM); Federal Energy Regulatory Commission (FERC)).

FACTS SUPPORTING FINDING:

The criteria for evaluating cultural resources on federal lands and lands impacted by federally funded or licensed projects are the eligibility criteria of the National Register of Historic Places (NRHP). The criteria apply to resources (prehistoric and historic sites) significant to the national, regional, state, or local levels. Adverse effects on resources either direct or indirect are considered for sites listed on the NRHP or which meet the criteria of eligibility.

For the purposes of the California Environmental Quality Act (CEQA), the criteria for evaluating cultural resources on state and private lands in California are significance criteria listed in Appendix K of the CEQA Guidelines.

Federal agencies cannot authorize federally licensed projects without prior compliance with Section 106 of the National Historic Preservation Act. This involves consultation with the State Historic Preservation Office (SHPO) and the Advisory Council on Historic Preservation to determine the existence and significance of cultural resources sites and the development of procedures to mitigate adverse effects.

Cultural resources impacted by the Mojave proposal in California include archaeological and historical sites that are located in areas which would be directly or indirectly affected by project construction and operation. Direct impacts would result from actual surface disturbance of a site's spatial configurations or stratigraphy during a facilities construction or use. Construction and/or maintenance activities would destroy cultural resources during the clearing, grading ditching, hauling stringing and placement of pipe, as well as during

backfilling. Other impacts include disturbances associated with vehicular activity associated with access roads, storage facilities, parking areas etc.

Indirect impacts refer to the increased potential for site disturbances due to a general intensification of the land use activities in the area surrounding the cultural sites. The construction of the pipeline may result in increased access into an area where cultural resources could be impacted by intentional disturbances (e.g., unauthorized excavation) or unintentional disturbances (e.g., off-road vehicle use).

Both prehistoric and historic period cultural resources were documented along the Mojave route in California. Twenty-eight resources, primarily prehistoric lithic scatters were identified. Of the 28 sites recorded, 2 were recommended as eligible to the NRHP. All of the eligible resources that would be potentially affected by the project were recommended for avoidance.

San Bernardino County would have jurisdiction over private lands along the Mojave route, while the BLM would administer the federal lands along the route.

Mitigation measures have been developed which were designed to reduce impacts to cultural resources. These measures included conduct of a records search to determine the presence of known cultural resources along the proposed route; an intensive 100 percent inventory of the Mojave route; preparation of a survey report assessing the significance of the sites identified and if necessary a testing plan to determine the eligibility of a property; a data recovery plan to reduce impacts to eligible sites which cannot be avoided; and a plan for monitoring of construction in areas suspected of containing buried cultural resources and the treatment of those sites. Mojave has completed all of the measures discussed above with the exception of the monitoring of construction.

Implementation of these measures should reduce impacts to insignificant levels.

MOJAVE

PALEONTOLOGY: Construction

Impact: Potential disturbance to significant paleontologic formations could occur along approximately 50 miles of the Mojave route.

Finding: A) Changes or alteration have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

B) Such changes or alterations are within the responsibility or jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by other such agencies or can or should be adopted by other such agencies. (California counties; Bureau of Land Management (BLM); Federal Energy Regulatory Commission (FERC)).

FACTS SUPPORTING FINDING:

Paleontological resources were examined based on a records and literature search conducted for the FEIR/S (Morales et al. 1987) of the entire Mojave pipeline route in California. The results of these studies indicated that significant paleontologic resources exist within the construction ROW of the proposed project. Approximately 50 miles of the route within California contain paleontologically significant deposits that would be adversely affected by construction of the pipeline.

Mitigation measures have been proposed to reduce these impacts to significant paleontologic deposits. The FEIR/S recommended that pre-construction surveys be conducted to determine the presence of significant paleontologic remains; to develop site-specific mitigation measures in areas where significant remains were identified; to implement those measure during the construction phase; and to monitor construction activities in areas determined to potentially contain significant fossil remains.

Implementation of these measures should result in a reduction of impacts to paleontological remains to non-significant levels.

COMMON FACILITIES

- GEOLOGY:** Operation
- Impact:** Geologic and seismologic hazards may result in damage to the pipeline and related facilities in the vicinity of the Lenwood, Garlock, Tejon Canyon, Springs, White Wolf, and an unnamed fault east of Bakersfield
- Finding:** A) Changes or alteration have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.
- B) Such changes or alterations are within the responsibility or jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by other such agencies or can or should be adopted by other such agencies. (California counties; Bureau of Land Management (BLM); Federal Energy Regulatory Commission (FERC)).

FACTS SUPPORTING THE FINDING:

Although it is difficult to quantify the probability of surface fault rupture, it is generally accepted that the more recently a fault has moved, the more likely it is to move again in any given period of time in the future. All faults with evidence of displacement during Quaternary times were examined. The State of California Division of Mines and Geology (CDMG) also identifies faults which are judged to be sufficiently capable of surface rupture in the short-term and thus require special study and design before facilities can be built in the vicinity. Among the criteria, evidence of Holocene offset is sufficient to cause the fault to be zoned.

Along the Common Facilities route in California, the EIR identified seven faults within the portion of the route now under study that showed evidence of Quaternary movement (FEIR/S 1, Table 3.1-6). Field investigations of these faults indicated that the Lenwood, Garlock, Tejon Canyon, Springs, White Wolf, and an unnamed fault system east of Bakersfield show evidence of Holocene activity and would be crossed by the present pipeline alignment.

The Lenwood Fault is located at MP 155.7 of the Common Facilities route. It is a right-lateral strike-slip fault with the potential for 4.6 feet of lateral displacement. The estimated maximum magnitude earthquake for rupture along the fault is 6.7.

The Garlock Fault is located between MPs 231.6 and 232.8. The Garlock Fault is a left-lateral strike-slip with a reverse component with repeated evidence of recent historic activity. Six strands of the fault were located which cross the alignment. Potential

displacements have been estimated to be up to 20 feet with the potential for producing 28 feet of left-lateral and 2 feet of vertical displacement in a single event. The estimated maximum magnitude earthquake for rupture along the fault is 7.4.

The Tejon Canyon Fault is located at MP 255 along the Common Facilities route. It is a right-lateral strike-slip fault with two additional strands. Potential displacements have been estimated at four feet with a maximum magnitude event of 6.7.

The Springs Fault is located along the Common Facilities route between MP 260 and 261. It is a normal fault with three strands crossed by the pipeline. Potential displacements have been estimated at 4.6 feet with a maximum magnitude event of 6.7.

The White Wolf Fault is located at MP 262-263 along the Common Facilities Mainline. The pipeline route would cross three strands of the fault. It is predominantly a reverse fault with a large left-lateral component. The total maximum displacement estimated for the fault is 12.5 feet, with a maximum magnitude event of 7.2.

An unnamed fault was identified east of Bakersfield on the East Side Lateral at MP 24. This is a three strand fault with a right-lateral strike-slip. The pipeline route parallels the fault. Maximum displacement is 1 foot with a maximum magnitude event of 6.1.

The most significant active fault crossed by the Common Facilities is the Garlock Fault, located west of the town of Mojave. It has the highest level of activity, the potential for the largest displacements, and the broadest zone of deformation.

Because of the linear nature of the pipeline, many government agencies have land use responsibility and jurisdiction over the project, and thus, can require mitigation measures as part of the right-of-way (ROW) or construction permit or grant. In California, San Bernardino County would have jurisdiction over private lands along the pipeline route, while the BLM administers the public lands associated with the Common Facilities routes and the East Side Lateral.

The following mitigation measures were suggested in the FEIR/S, which each of the above agencies as appropriate, can require to reduce the impact of ROW construction.

Detailed geologic, seismologic, and geotechnical studies shall be conducted by the applicant to identify and characterize geologic hazards as appropriate. In areas where hazards are identified, information shall be collected to aid in the design and construction of the pipeline and ancillary facilities. In general, care shall be taken during construction to minimize surface disturbance and related soil erosion, and not to alter the drainage of the affected area (FEIR/S Mitigation Measure #4).

Additional studies shall be conducted by the applicant to evaluate potential seismological hazards along the proposed routes. The potential for surface offset along Quaternary faults shall be evaluated in detail so that appropriate pipeline crossings can be designed. Field

studies shall be completed to delineate the areas where movements may occur (FEIR/S Mitigation Measure #5).

Results of the proposed applicants' geotechnical studies indicated in Nos. 4 and 5 above shall be submitted to the SLC. The following geotechnical studies and mitigating design measures shall be submitted for review and approval by the SLC staff prior to implementation of these measures. Such studies shall include identification of: (a) all Holocene faults crossed by the proposed facilities; (b) all areas where potentially liquefiable deposits are crossed and likely effects on the facilities; and (c) all landslides or areas of significant slope instability crossed by, or possibly affecting, the proposed facilities.

Specific mitigating measures shall be developed to minimize the potential for slope failures, ruptures or failure of pipeline facilities wherever such failure could result in direct or indirect hazards to public safety and environmental resources. The nature and locations of significant geologic hazards shall be considered in the siting of block valves. The applicant shall also consider use of automatic or remote-controlled block valves in areas which may be inaccessible following a major earthquake or landslide.

Studies shall be done in sufficient detail to allow characterization of the particular geologic hazard using state-of-the-art techniques. Sufficient justification should be included for not implementing specific mitigating measures in areas identified as subject to significant geologic hazards (FEIR/S Mitigation Measure #8).

Implementation of these measures have been completed by Mojave (Woodward-Clyde Consultants, 1989) and will result in minimization of the potential for serious damage to the pipeline and related facilities. This has been accomplished by recommending that faults that require mitigation be flagged in the field prior to excavation; examination and mapping of the pipeline trench to locate fault crossings and to confirm fault parameters for the mitigation design at each crossing by a seismic geologist; and inspection of the pipeline by a seismic geologist or earthquake engineer following earthquakes larger than a magnitude of 5 that occur within 50 miles of the pipeline.

COMMON FACILITIES

GEOLOGY: Operation

Impact: Unstable slopes may result in landslides which could result in pipeline rupture in the vicinity of MP 255 in the Tehachapi Mountains.

Finding: A) Changes or alteration have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

B) Such changes or alterations are within the responsibility or jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by other such agencies or can or should be adopted by other such agencies. (California counties; Bureau of Land Management (BLM); Federal Energy Regulatory Commission (FERC)).

FACTS SUPPORTING THE FINDING:

Landslides are mass movements of soil and/or rock that can occur due to seismic shaking, saturation, over-steepening, or failure along a dipping bedding plane or fracture. The risk of pipelines posed by rockfalls is relatively low. Slumps and shallow soil failures commonly occur and could result in the shearing of a pipeline under certain conditions. Deep rotational slides are commonly catastrophic and can involve large volumes of material. It is possible that a slide could be severe enough to subject a pipeline to stress associated with folding, lateral shearing, extension or compression.

A relatively small area of potential landsliding was identified along the Common Facilities route between MP 254.9 and 255.1. The proposed route would cross one large rotational slide mass and is routed over several others along the western portion of a steep hillside. The slides in the area are deep and are part of an ancient, large slide complex which encompasses a large part of the hillside.

Mitigation measures were developed to reduce the effects of this landslide area. The most effective method of mitigation within the slide complex is to reroute the pipeline to avoid the active slides along the hillside.

COMMON FACILITIES

GEOLOGY: Operation

Impact: Areas of hydrocompaction may result in damages to the pipeline and related facilities in the vicinity of Wheeler ridge (MP 267-281), Ford City (MP 301-306), Buena Vista Lake (MP 306-313), Buena Vista Slough (MP 313-314), and McKittrick Valley (MP 315-318).

Finding: A) Changes or alteration have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

B) Such changes or alterations are within the responsibility or jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by other such agencies or can or should be adopted by other such agencies. (California counties; Bureau of Land Management (BLM); Federal Energy Regulatory Commission (FERC)).

FACTS SUPPORTING THE FINDING:

Hydrocompaction is the property of some dry sediments which causes them to slump, crack and collapse after wetting. Vertical displacements of to 5 meters and cracks up to 2 meters wide have been known to occur. Pipelines crossing an area in which hydrocompaction occurs are forced to conform with a changing gradient, involving sags in the center of the subsiding area and overbends at the margins. The ability of the pipeline to withstand concentrated compressive and tensile stresses caused by subsidence without rupturing is dependant in part on the rigidity of the pipeline wall.

The California Department of Water Resources has identified extensive areas in the southern San Joaquin Valley which are susceptible to hydro compaction.

Mitigation measures to reduce the impacts of hydrocompaction include proper design to withstand broad areas of compaction as well as abrupt differential displacement along the margins of the hydrocompacted sediments.

Implementation of these measures would reduce impacts to insignificant levels.

COMMON FACILITIES

GEOLOGY: Operation

Impact: Areas of liquefaction could occur in the vicinity of the southern San Joaquin Valley near Buena Vista Lake (MP 300) and between MPs 280 and 285 which could result in damage to the pipeline and related facilities.

Finding: A) Changes or alteration have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

B) Such changes or alterations are within the responsibility or jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by other such agencies or can or should be adopted by other such agencies. (California counties; Bureau of Land Management (BLM); Federal Energy Regulatory Commission (FERC)).

FACTS SUPPORTING THE FINDING:

There may be a significant potential for liquefaction where the route is near Buena Vista Lake and in an area of shallow groundwater in Kern County. Liquefaction is a condition in which an earthquake-induced increase of pore pressure in saturated loose, granular sediments causes a temporary but complete loss of shear strength. The potential conditions of greatest concern for the proposed pipeline would be lateral spreading, which may carry the pipeline downslope and result in rupture. Another effect on the pipeline would be flotation which could result in exposure of the pipeline and possible rupture.

Because of the linear nature of the pipeline, many government agencies have land use responsibility and jurisdiction over the project, and thus, can require mitigation measures as part of the right-of-way (ROW) or construction permit or grant. In California, San Bernardino and Kern counties would have jurisdiction over private lands along the pipeline route, while the BLM administers the public lands associated with the Common Facilities route.

The following mitigation measures were suggested in the FEIR/S, which each of the above agencies as appropriate, can require to reduce the impact of geologic activities on operation of the pipeline.

Detailed geologic, seismologic, and geotechnical studies shall be conducted by the applicant to identify and characterize geologic hazards as appropriate. In areas where hazards are identified, information shall be collected to aid in the design and construction of the pipeline and ancillary facilities (FEIR/S Mitigation Measure #4).

Results of the proposed applicants' geotechnical studies indicated in No. 4 shall be submitted to the SLC. The following geotechnical studies and mitigating design measures shall be submitted for review and approval by the SLC staff prior to implementation of these measures. Such studies shall include identification of: (a) all Holocene faults crossed by the proposed facilities; (b) all areas where potentially liquefiable deposits are crossed and likely effects on the facilities; and (c) all landslides or areas of significant slope instability crossed by, or possibly affecting, the proposed facilities.

Specific mitigating measures shall be developed to minimize the potential for slope failures, ruptures or failure of pipeline facilities wherever such failure could result in direct or indirect hazards to public safety and environmental resources. The nature and locations of significant geologic hazards shall be considered in the siting of block valves. The applicant shall also consider use of automatic or remote-controlled block valves in areas which may be inaccessible following a major earthquake or landslide.

Studies shall be done in sufficient detail to allow characterization of the particular geologic hazard using state-of-the-art techniques. Sufficient justification should be included for not implementing specific mitigating measures in areas identified as subject to significant geologic hazards (FEIR/S Mitigation Measure #8).

Implementation of these measures have been completed by Mojave (Woodward-Clyde Consultants, 1989) and will result in minimization of the potential for serious damage to the pipeline and related facilities. This has been accomplished by recommending that an aerial inspection of the pipeline by a seismic geologist or earthquake engineer be conducted immediately after any significant earthquake in the region to examine the route for evidence of liquefaction and possible damage to the pipeline.

COMMON FACILITIES

SOILS: Construction

Impact: Construction of the pipeline will result in a loss of topsoil due to wind and/or water erosion. Removal of vegetation and/or desert pavement will result in increased erosion. Reclamation potential of the soils along the Mojave Desert portion of the route are generally poor. Reclamation potential in the Tehachapi mountains is generally poor due to steepness of slopes.

Finding: A) Changes or alteration have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

B) Such changes or alterations are within the responsibility or jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by other such agencies or can or should be adopted by other such agencies. (California counties; Bureau of Land Management (BLM); Federal Energy Regulatory Commission (FERC)).

C) Specific economic, social or other considerations make infeasible the mitigation measures or project alternatives identified in the Final EIR.

FACTS SUPPORTING FINDING:

Significant adverse impacts to soils would result from the construction of the pipeline. These impacts would consist of the permanent removal of vegetation from a portion of the ROW for at least five years. Vegetation removal could result in increased wind and/or water erosion. Furthermore the poor reclamation potentials of most of the soils along the route would preclude rapid recovery of the vegetative community.

Many government agencies have land use responsibility and jurisdiction over the project, and thus, can require mitigation measures as part of the right-of-way (ROW) or construction permit or grant. In California, San Bernardino County would have jurisdiction over private lands along the pipeline route, while the BLM administers the public lands associated with the route.

Several mitigation measures are suggested in the FEIR/S which the appropriate agencies can require to reduce the impact of pipeline construction. These measures include:

Selective salvage and replacement of topsoil (A horizon) shall be done for cultivated lands and those lands for which the land management agency or the landowner requests that topsoil be salvaged and replaced or on lands underlain by soils poorly suited or with

nsuitable reclamation potential. Topsoil shall not be used for filling of sack breakers or for padding of the trench (FEIR/S Mitigation Measure #13).

The applicant shall minimize the amount of vegetation removed, and where it is removed leave the roots intact (FEIR/S Mitigation Measure #17).

During construction of the project, on-site reclamation specialists, certified by The Soil Conservation Society of America, shall be employed by the company for each construction spread to provide direct applicable restoration procedures when special conditions are encountered, without causing construction delays (FEIR/S Mitigation Measure #19).

Where practical, as determined by the appropriate regulatory agency, the pipeline shall be located on side-slopes of less than 30 percent (FEIR/S Mitigation Measure #21).

The applicant shall minimize the areas of disturbance to a minimum necessary to construct and operate the pipeline. Steep slopes and particularly sensitive areas prone to significant impact shall be avoided where practicable (FEIR/S Mitigation Measure #24).

Soil areas with rock fragments, such as very coarse gravel, cobble or stone scattered on the surface or desert pavement conditions shall be restored as nearly as possible to the original preconstruction surface condition to blend with the adjoining area, to avoid a smooth surface ROW area, and to control accelerated erosion (FEIR/S Mitigation Measure #26).

On federal lands, a detailed site-specific geotechnical and restoration and reclamation plan shall be developed and become part of the Forest Service/Bureau of Land Management construction, operation, and maintenance (COM) plan. Because the proposed ROW is composed of many types of terrain, soils, water, bedrock, vegetation, land uses, and climatic conditions, the detailed plan shall include sets of techniques and measures tailored to each condition encountered. Local expertise and locally effective slope stabilization and reclamation methods shall be followed when the site-specific procedures for the detailed plans are developed. Site-specific geotechnical and erosion control, revegetation, and restoration measures from the plans shall be implemented under the direction of the appropriate agency official. Consultation with all appropriate state and federal agencies and other local experts will be required when developing detailed site-specific revegetation plans (FEIR/S Mitigation Measure #27).

All topsoil on federal lands shall be conserved for reclamation requirements unless otherwise directed by the FS/BLM; excess topsoil shall be stockpiled at designated locations. Topsoil shall be removed, windrowed separately, protected, and replaced last during backfilling (FEIR/S Mitigation Measure #29).

During adverse weather conditions, as determined by the FS/BLM authorized officer, stop and start orders on federal lands shall be issued to prevent rutting or excessive tracking of soils and deterioration of vegetation in the ROW area (FEIR/S Mitigation Measure #30).

On all federal lands, design and construction of all temporary, reconstructed, and newly constructed roads shall be based on an approved COM plan transportation section and shall ensure proper drainage, minimize soil erosion, and preserve topsoil. This plan shall include clearing work, rehabilitation, and use and maintenance agreements associated with transportation needs.

Where possible, the ROW itself shall be used as an access road during the construction period. Overland access may be specified in lieu of road construction or reconstruction.

All temporary roads shall be closed and areas restored without undue delay or maintained as specified in the ROW grant(s) or special use permit(s). Restoration to near original slope and contour, including redistribution of topsoil, would be to the satisfaction of the appropriate land management agency (FEIR/S Mitigation Measure #31).

Areas with dense brush and/or boulders shall be cleared by construction machinery prior to grading and trenching. Trees and large shrubs that are too large to be bladed by a bulldozer shall be avoided or removed. Vegetation removed shall be windrowed within the ROW during construction and spread on the ROW after construction, for use as wildlife cover. The upper two to six inches of topsoil from the construction ROW requiring grading shall be removed and windrowed with the vegetation and kept separate from the remaining spoils.

Grading shall be limited to that area necessary to permit movement and operation of equipment. Grading shall not be permitted in areas where sensitive plant species occur, until after sensitive plants are removed and transplanted or soil seed banks are removed (EIR Amendment: Appendix C, Section 3.1.2.2).

Once construction is complete and the pipeline trench backfilled, the pipeline alignment and access roads shall be recontoured to approximate the original contour. Heavily compacted soils shall be loosened through the use of a cultivator or similar device. Stockpiled topsoil shall then be placed on the surface in a manner to reduce disturbance to the topsoil and recompaction of the soil. In order to reduce water erosion, slope angle and slope length shall be reduced where appropriate. In addition to the replacement of topsoil, rock and natural plant debris shall also be replaced to reduce erosion potential (EIR Amendment: Appendix C, Section 3.3.2.4).

All areas of the pipeline ROW containing native vegetation shall be restored by the replacement of the segregated topsoil onto the disturbed ROW. After return of the topsoil and the windrowed vegetation, the disturbed areas shall be imprinted. Imprinting is a shaped roller which forms funnel-shaped seedbed and seedling cradles which concentrate water and improve infiltration.

No mulching, fertilization or reseeding shall take place within the Mojave Desert beyond the replacement of the windrowed vegetation which will be mixed with the topsoil.

Restoration activities shall be monitored in the same manner as other construction activities.

Areas with a high potential; for either wind or water erosion shall be stabilized by the use of a tackifier such as J-tac (40-80 lbs/acre). The feasibility of usage shall be evaluated by the on-site biological monitoring staff and the reclamation specialist at the time of restoration (EIR Amendment: Appendix C, Section 3.3.3.1).

Utilization of all of these measures will significantly reduce impacts to soils and vegetation; however, even with the implementation of these measures, impacts to soils will remain significant.

ALTERNATIVES

No Project Alternative

While the EIR does not address whether the No Project Alternative would result in greater or lesser impacts to soils, it is assumed that by not building the project would result in fewer impacts. However, the No Project Alternative would not provide important benefits to the State of California which would result from operation of the Mojave Pipeline, particularly with respect to additional tax based revenues associated with the construction and operation of the facility, air quality benefits in the Kern County region, and a lessened dependence on foreign oil sources as a result of the Enhanced Oil Recovery goals of the project.

No Action Alternative

While the EIR does not address whether the No Action Alternative would result in greater or lesser impacts, it is assumed that the building of the Mojave project as originally proposed would result in greater impacts to soils than the route currently under consideration.

PGT/PG&E Alternative

While the EIR does not address whether the PGT/PG&E Alternative would result in greater or lesser soil erosion impacts, the CPUC Final EIR indicated that significant and unavoidable soils impacts would occur as a result of the building of the project. However, the PGT/PG&E Alternative would not overlap with the proposed Joint Mojave-Kern River Proposal and would not serve the same gas market place. As a result the feasibility of the PGT/PG&E alternative must be questioned. In order for the PGT/PG&E Alternative to be feasible an unknown amount of additional construction would have to be undertaken.

Alternative Energy Sources

While the EIR does not address whether the utilization of Alternative Energy Sources would result in greater or lesser soil erosion impacts, its utilization would result in fewer soils

related impacts in the short-term. The Alternative Energy Sources Project would not result in significant long-term benefits due to the lack of adequate supplies of energy. Utilization of fuels other than natural gas would not provide important benefits to the State of California which would result from operation of the Mojave Pipeline, particularly with respect to additional tax based revenues associated with the construction and operation of the facility, air quality benefits in the Kern County region, and a lessened dependance on foreign oil sources as a result of the Enhanced Oil Recovery goals of the project.

Route Alternatives

A number of routing alternatives were examined in the EIR. Mojave has been directed by the FERC certificate to utilize an alternative route through the Tehachapi Mountains to avoid conflicts with the land use plans of the Stallion Springs Community. Impacts associated with the El Dorado Alternative through the Tehachapis would entail less impact to undisturbed soils than either the Mojave or Kern River routes as proposed.

COMMON FACILITIES

SURFACE WATER: Construction

Impact: Reduced water quality, increased sediment loading, and aggradation and degradation of stream channels due to channel bed disruption could occur during construction across the Kern River and Poso Creek and several intermittent streams along the route.

Finding: A) Changes or alteration have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

B) Such changes or alterations are within the responsibility or jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by other such agencies or can or should be adopted by other such agencies. (California counties; Bureau of Land Management (BLM); Federal Energy Regulatory Commission (FERC)).

FACTS SUPPORTING FINDING:

The proposed crossing of the Kern River would be buried below the channel bottom at a depth below the estimated scour. Crossing of the Kern River would likely occur under flowing conditions and could result in an increase in sediment load and subsequent decrease in water quality would be expected downstream.

Mitigation measures have been developed to ensure that impacts to the Kern River as well as all intermittent streams are minimized. These measures include the following:

The applicant shall develop and implement site-specific erosion control, revegetation, and stabilization plans as soon as possible to limit soil erosion and potential sediment input. This plan must be acceptable to the appropriate regulatory agency. In addition to this plan, an anti-degradation analysis of water quality should be undertaken to assure that the highest statutory and regulatory requirements and best management practices for pollutant controls are achieved (FEIR/S Mitigation Measure #35).

The applicant shall minimize stream bank and streambed disturbance to the extent practicable. Construction impact should not exceed two weeks. Periods of low flow shall be utilized when crossing stream channels (FEIR/S Mitigation Measure #36).

Construction across intermittent and perennial streams shall be done during periods of low or no flow where practicable. Stringent water quality control measures shall be utilized on crossings made during moderate-to-high flow periods (FEIR/S Mitigation Measure #37).

After pipeline construction is completed, construction contractors shall stabilize disturbed areas promptly (FEIR/S Mitigation Measure #38).

The pipeline shall be buried at stream crossings below the estimated scour depths associated with a 100-year flood event. Where channel degradation during operation reduces the burial depth to less than the 100-year scour depth, the applicant shall ensure the integrity of the pipeline through reburial to the proper depth wherever feasible. Where reburial is not practicable other methods such as installation of anchors and riprapping shall be employed (FEIR/S Mitigation Measure #44).

Pipeline operators shall check the pipeline burial depth periodically at stream/channel crossings (FEIR/S Mitigation Measure #45).

Stream crossings shall be made as perpendicular to the axis of the channel as possible (FEIR/S Mitigation Measure #47).

Spoil from trench excavation shall be placed out of the stream on the banks at narrow stream crossings. Spoil shall be carefully placed downstream of the trench at wide crossings. Backfilling at streams shall be performed slowly to minimize agitation and increased sediment loading. Good quality backfill shall be placed in streams (FEIR/S Mitigation Measure #48).

Implementation of these measures should reduce impacts to surface waters to insignificant levels.

COMMON FACILITIES

SURFACE WATER: Construction and Operation

Impact: Reduction in water quality due to fuel or chemical spillage and impacts to surface water resources could occur during construction, operation and abandonment of the pipeline

Finding: A) Changes or alteration have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

B) Such changes or alterations are within the responsibility or jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by other such agencies or can or should be adopted by other such agencies. (California counties; Bureau of Land Management (BLM); Federal Energy Regulatory Commission (FERC)).

FACTS SUPPORTING FINDING:

The most significant impact on surface water would be the result of a fuel or chemical spill during construction or operation of the pipeline which could contaminate downstream water supplies. These accidental spills would generally be minor but have the potential to cause significant damage to water supplies.

Mitigation measures to reduce these impacts have been proposed which can be implemented to reduce impacts to insignificant levels. These measures include: requiring that chemicals, fuel, and lubricating oils shall not be stored near stream channels. Spill containments shall be installed or constructed around all chemical, fuel, and oil storage areas. Refueling and changing of lubricating oil shall not be done in or near stream channels, or where an accidental spill could run into a stream channel or shallow ground water zone. Any accidental spills shall be promptly cleaned up (FEIR/S Mitigation Measure #49).

Implementation of these measures should reduce impacts to insignificant levels.

COMMON FACILITIES

TERRESTRIAL BIOLOGY

VEGETATION: Construction

Impact: Loss of sensitive plant communities or individual sensitive plant species could occur as a result of the construction of the pipeline.

Finding: A) Changes or alteration have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

B) Such changes or alterations are within the responsibility or jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by other such agencies or can or should be adopted by other such agencies. (California counties; Bureau of Land Management (BLM); Federal Energy Regulatory Commission (FERC)).

C) Specific economic, social or other considerations make infeasible the mitigation measures or project alternatives identified in the Final EIR.

FACTS SUPPORTING FINDING:

Construction of the pipeline will involve clearing a minimum 100 foot ROW with heavy earth moving equipment. Above-ground obstacles such as trees, brush and boulders are removed and any stumps or roots in the ditch line are taken out. After clearing, the ROW is graded and leveled as necessary for vehicle and equipment operation. These operations would generally remove or kill all vegetation in the 100 foot ROW corridor. Mojave and Kern River have agreed to reduce this construction impact to the maximum extent possible by utilizing clearing methods which reduce the amount of impact to vegetation. In addition to these impacts, certain portions of the route such as stockpile areas, stream and road crossings, etc., may require additional construction space. These areas have been identified by Mojave/Kern River.

Where the pipeline route crosses through sensitive and ecologically valuable plant communities such as riparian vegetation, Mojavean creosote bush scrub, desert saltbush scrub, Mojave wash scrub, Mohave mixed steppe, Mohave mixed woody scrub, Mohave juniper woodland and scrub, rabbitbush scrub, blue oak woodland, Sierra-Tehachapi saltbush scrub, and Valley needlegrass grassland would cause significant impact. In addition, where the route would pass through areas with individuals of sensitive plant species such as California jewel flower, Mojave spineflower, desert cymopterus, Kern buckwheat, Barstow woolly sunflower, Greenhorn fritinary, striped adobe lily, sand linanthus, Mojave monkeyflower, painted monkeyflower, Piute Mountains Navarretia, Bakersfield cactus, Mojave indigo bush, Parish's alkali grass, Mojave fishhook cactus, forked fiddleneck, Lost

Hills saltbush, slough thistle, Kern mallow, Hoover's erlastrum, and cottony buckwheat, ROW construction would cause a significant impact.

Because of the linear nature of the pipeline, many government agencies have land use responsibility and jurisdiction over the project and thus can require mitigation measures as a part of ROW or construction permits or grants. San Bernardino and Kern counties would have jurisdiction over private lands along the pipeline route while the BLM administers the federal lands in the desert and the valley. The U.S. Fish and Wildlife Service (USFWS) may require stipulations to protect certain plant communities on federal lands and the California Department of Fish and Game has to enforce certain protections for state-listed or otherwise state protected plant species.

A number of mitigation measures have been developed in the FEIR/S and in the EIR Amendment to reduce impacts to sensitive plant communities and individual plant species. These measures are available for appropriate agencies as a method of reducing impacts of ROW construction. A listing of the measures are presented below.

The applicant shall design and implement site-specific revegetation plans according to the requirements and guidelines of the land management agency (BLM or USFWS), state agency or landowner. These plans shall include the necessary topsoil replacement, seedbed preparation, mulching, fertilization, use of seed mixtures containing native species, noxious weed control and additional erosion control. Generally the revegetation objective would be to return the disturbed area to a condition that would perpetuate previous land use. Guidelines established by the SCS shall be used where the pipeline would traverse private land, and if it is agreeable to the owner. Periodic inspection of the ROW shall be conducted by the applicant and reclamation efforts enhanced where needed (FEIR/S Mitigation Measure #57).

During construction in sensitive areas, the applicant shall clear the minimum ROW width possible and minimize ROW damage where possible (e.g. not stripping vegetation less than four inches in height, leaving trees standing and/or mowing taller vegetation as opposed to clearing, the last being particularly desirable in Mojavean shrub communities). This shall include local adjustment of pipeline alignment to avoid areas with high densities of sensitive plant species or sensitive communities (FEIR/S Mitigation Measure #57).

Trees and shrubs that are not cleared shall be protected from damage during construction (FEIR/S Mitigation Measure #60).

Trench backfilling operations shall be conducted in such a manner to minimize further disturbance of vegetation (FEIR/S Mitigation Measure #61).

The applicant shall avoid, where feasible and necessary, locations of sensitive species and environmentally sensitive areas which include sensitive communities and known and suspected habitat of plant species of special concern. Specific information on sensitive areas shall be obtained by conducting field surveys along portions of the proposed route for individuals and habitat of species of concern and sensitive communities. Field surveys shall

be conducted during the appropriate time of year by a qualified botanist. Where feasible, pipeline alignment shall be adjusted to miss or minimize impacts to identified individuals or habitats (FEIR/S Mitigation Measure #69).

For areas supporting sensitive plant communities or plant species of special concern, the applicant shall restrict access onto the pipeline ROW where possible, by constructing barricades, fences with locked gates or by posting with signs (FEIR/S Mitigation Measure #70).

Wetland and riparian vegetation impacted by construction or operation shall be replaced in kind (FEIR/S Mitigation Measure #71).

Removal of certain sensitive plant species from the ROW may be a way to decrease impacts to certain plant species in California. If plants are removed, replanting shall occur in suitable habitat outside the zone of potential disturbance (construction and ORV use). Such sites shall be established in consultation with the appropriate land management agencies (FEIR/S Mitigation Measure #72).

When it is not feasible to avoid areas containing plant species of special concern, the applicant shall attempt to transplant such perennial plant species back into the ROW after construction (FEIR/S Mitigation Measure #74).

To minimize permanent and temporary construction disturbances, project-related vehicle traffic, construction activities, and equipment storage shall be restricted to established roads, designated access roads, the construction ROW, storage areas, staging and parking areas, and other designated project areas including the placement of portable restroom facilities. Off-road traffic outside of designated areas shall be prohibited. Parking, storage, and other areas shall be designated by flagged lath stakes at least 24 inches above ground height placed in line of sight with a maximum spacing of 200 ft. These areas shall be examined during preconstruction surveys for state and/or federally listed species, and shall be established in locations disturbed by previous activities, to the extent possible. The construction ROW shall also be clearly marked at the centerline and outside boundaries. The outside boundaries of the ROW shall be staked with at least 24 inch-tall flagged lath at a maximum interval of 200 ft prior to construction. If construction activities are repeatedly documented outside of these flagged areas, the outer boundaries of the ROW must be delineated by a continuously taped boundary. All access roads, both existing and proposed, shall be flagged. Only flagged access roads shall be used (EIR Amendment: Appendix C, Section 3.1.2.1).

Areas with dense brush and/or boulders shall be cleared by construction machinery prior to grading and trenching. Trees and large shrubs that are too large to be bladed by a bulldozer shall be avoided or removed. Vegetation removed shall be windrowed within the ROW during construction and spread on the ROW after construction, for use as wildlife cover. The upper two to six inches of topsoil from the construction ROW requiring grading shall be removed and windrowed with the vegetation and kept separate from the remaining spoils.

Grading shall be limited to that area necessary to permit movement and operation of equipment. Grading shall not be permitted in areas where sensitive plant species occur, until after sensitive plants are removed and transplanted or soil seed banks are removed (EIR Amendment; Appendix C, Section 3.1.2.2).

Surface material ("topsoil") must be salvaged from trenching and any grading activities for preservation of topsoil and fertility in agricultural areas and existing seedbanks in natural vegetation. Topsoil shall also be salvaged at stream crossings and riparian areas. Topsoil salvage may be done using a double windrow method or other approved method to separate topsoil (the top 2 to 6 inches) from the remaining spoil material. Topsoil shall be bladed to the outside of the spoil pile. Replacement of the spoil pile followed by the topsoil must then be completed. During backfilling, spoil and topsoil shall be pulled back or pushed into the trench in a manner avoiding vehicular traffic outside the ROW.

Special care shall be given in areas (e.g., topsoil removal by hand or small mechanical equipment), where sensitive annual species have been found or may occur to stockpile topsoil from this specific habitat and replace this topsoil in the same area (EIR Amendment: Appendix C, Section 3.1.2.3).

Backfilling of the trench shall be done with an auger backfiller or other suitable equipment where root systems have been preserved and/or where topsoil has been segregated. Where blading has been done, backfilling may be done with a dozer (EIR Amendment Appendix C Section 3.1.2.5).

After construction is completed, a final ROW cleanup shall include removal of all stakes, lathe, flagging, barrels, cans, drums, accidental spills and any other refuse generated by construction. No shrub material or other plant cover shall be disturbed during this process (EIR Amendment Appendix C Section 3.1.3.1).

Although none is anticipated, if rodenticide and/or herbicide use is required, the pipeline company shall contact the USFWS and CDFG for review and concurrence with the proposed activity. This may result in reinitiation of consultation prior to the use of rodenticide. When use is necessary and approved, each company shall follow restrictions set by the agencies, and must follow label procedures and other restrictions mandated by the U.S. Environmental Protection Agency, California Department of Food and Agriculture, and other state and federal legislation (EIR Amendment: Appendix C, Section 3.1.4.4).

Several candidate or otherwise sensitive plants have the potential to occur along the corridor as described in the Draft EIR Amendment. These include *Cymopterus deserticola*, *Penstemon albomarginatus*, *Lilanthus arenicola*, *Eriophyllum mohavense*, and *Mimulus mohavensis* in the Mojave Desert. Potential habitat of plant species of concern in the San Joaquin Valley include *Amsinckia furcata*, *Atriplex vallicola*, *Caulanthus californicus*, *Cirsium crassicaule*, *Eremalche kernensis*, *Eriastrum hooveri*, *Eriogonum gossypinum*, and *Opuntia treleasei*. Only *Cirsium crassicaule* and *Opuntia treleasei* were found during the field investigations. If populations of these species are identified during the

preconstruction surveys, the populations shall be avoided through minor changes in the pipeline alignment, restrictions in the width of the construction ROW or both.

If avoidance is not possible, cactus and other perennials capable of transplantation should be transplanted to other locations or back on the ROW after completion of construction. Additionally, other sensitive annual species may be located during new springtime surveys if substantial rain occurs in the 1990-1991 winter season. The following measures shall be taken:

Preconstruction surveys shall take place during the months of March to June in the Mojave Desert to identify and flag all sensitive plant species at known occurrences and in potential habitat on the ROW and access points. These plants shall be avoided wherever feasible. Preconstruction surveys shall be conducted at known occurrences and in potential habitat between April and the end of June in the San Joaquin Valley to identify populations of candidate or state and/or federally listed plants.

Cactus, Joshua trees, and other perennial species that would be lost during construction shall, where feasible, be transplanted to adjacent locations or replaced on the ROW after completion of construction. The guidelines for the feasibility of any transportation of these plants and the location where they would be replanted shall be determined in consultation with the Agencies at least 30 days prior to initiation of construction.

The top two inches of top soil in all known habitat for sensitive annual species shall be removed by hand or small equipment. No reseeding in the immediate vicinity shall be permitted (EIR Amendment: Appendix C, Section 3.2.2.3).

Utilization of these mitigation measures should reduce impacts to sensitive plant communities; however, significant impacts will still occur as a result of construction.

ALTERNATIVES

No Project Alternative

While the EIR does not address whether the No Project Alternative would result in greater or lesser impacts to vegetation, it is assumed that by not building the project would result in fewer impacts. However, the No Project Alternative would not provide important benefits to the State of California which would result from operation of the Mojave Pipeline, particularly with respect to additional tax based revenues associated with the construction and operation of the facility, air quality benefits in the Kern County region, and a lessened dependence on foreign oil sources as a result of the Enhanced Oil Recovery goals of the project.

No Action Alternative

While the EIR does not address whether the No Action Alternative would result in greater or lesser impacts, it is assumed that the building of the Mojave project as originally proposed would result in greater impacts to native vegetation than the route currently under consideration.

PGT/PG&E Alternative

While the EIR does not address whether the PGT/PG&E Alternative would result in greater or lesser vegetation impacts, the CPUC Final EIR indicated that significant and unavoidable soils impacts would occur as a result of the building of the project. However, the PGT/PG&E Alternative would not overlap with the proposed Joint Mojave-Kern River Proposal and would not serve the same gas market place. As a result the feasibility of the PGT/PG&E alternative must be questioned. In order for the PGT/PG&E Alternative to be feasible an unknown amount of additional construction would have to be undertaken.

Alternative Energy Sources

While the EIR does not address whether the utilization of Alternative Energy Sources would result in greater or lesser vegetation impacts, its utilization would result in fewer soils related impacts in the short-term. The Alternative Energy Sources Project would not result in significant long-term benefits due to the lack of adequate supplies of energy. Utilization of fuels other than natural gas would not provide important benefits to the State of California which would result from operation of the Mojave Pipeline, particularly with respect to additional tax based revenues associated with the construction and operation of the facility, air quality benefits in the Kern County region, and a lessened dependence on foreign oil sources as a result of the Enhanced Oil Recovery goals of the project.

Route Alternatives

A number of routing alternatives were examined in the EIR. Mojave has been directed by the FERC certificate to utilize an alternative route through the Tehachapi Mountains to avoid conflicts with the land use plans of the Stallion Springs Community. Impacts associated with the El Dorado Alternative through the Tehachapis would entail less impact to native vegetation soils than either the Mojave or Kern River routes as proposed.

COMMON FACILITIES

TERRESTRIAL BIOLOGY

WILDLIFE: Construction and operation

Impact: Loss of sensitive wildlife habitat or disturbance to sensitive wildlife species could occur as a result of the construction of the pipeline.

Finding: A) Changes or alteration have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

B) Such changes or alterations are within the responsibility or jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by other such agencies or can or should be adopted by other such agencies. (California counties; Bureau of Land Management (BLM); Federal Energy Regulatory Commission (FERC)).

C) Specific economic, social or other considerations make infeasible the mitigation measures or project alternatives identified in the Final EIR.

FACTS SUPPORTING FINDING:

Construction of the pipeline will involve clearing a minimum 100 foot ROW with heavy earth moving equipment. Above-ground obstacles such as trees, brush and boulders are removed and any stumps or roots in the ditch line are taken out. After clearing, the ROW is graded and leveled as necessary for vehicle and equipment operation. These operations would generally remove all wildlife habitat, destroy dens or burrows and could kill most small mammals, and reptiles with limited mobility, in the 100 foot ROW corridor. Mojave/Kern River has agreed to reduce this construction impact to the maximum extent possible by utilizing clearing methods which reduce the amount of impact to wildlife habitat. In addition to these impacts, certain portions of the route such as stockpile areas, stream and road crossings, etc., may require additional construction space. These areas have been identified by Mojave/Kern River.

Construction in general would cause displacement of large mammals, birds and reptiles from the area for the duration of the construction. Additionally, the ROW and construction ditch may temporarily be a barrier to normal movement patterns and may separate animals from habitat requirements such as watering holes. Increased use of vehicles and human access into previously remote areas could increase the risk of wildlife harassment, a significant impact if sensitive species are killed or disturbed.

Loss of wildlife habitat would be significant along the Common Facilities route in California, in desert tortoise and Mohave ground squirrel habitat areas in the Mojave

Desert, since revegetation could take up to 50 years. In addition, loss of habitat in the Tehachapi Mountains associated with the Tehachapi slender salamander and the loss of habitat in the San Joaquin Valley associated with the San Joaquin kit fox, blunt-nosed leopard lizard, San Joaquin Valley antelope ground squirrel, giant kangaroo rat and Tipton kangaroo rat would be significant. Loss of individual animals of any of these sensitive species is also considered a significant impact.

Because of the linear nature of the pipeline, many government agencies have land use responsibility and jurisdiction over the project and thus can require mitigation measures as a part of ROW or construction permits or grants. San Bernardino and Kern counties would have jurisdiction over private lands along the pipeline route while the BLM administers the federal lands in the desert. The U.S. Fish and Wildlife Service (USFWS) may require stipulations to protect certain wildlife species on federal lands and the California Department of Fish and Game has to enforce certain protections for state-listed or otherwise state protected wildlife species.

A number of mitigation measures have been developed in the FEIR/S and in the EIR Amendment to reduce impacts to sensitive wildlife species habitat and individual sensitive species. These measures are available for appropriate agencies as a method of reducing impacts of ROW construction. A listing of the measures are presented below.

The applicant shall conduct a preliminary survey using a competent wildlife biologist to identify any raptor nests within the area of concern. All raptor nests found within the ROW shall be avoided. Construction activities shall be scheduled so that they do not conflict with raptors nesting within 0.5 mile of the proposed alignment. The appropriate state or federal agency has guidelines defining calendar dates when activity should not occur for these species (FEIR/S Mitigation Measure #75).

Impacts to high interest species could be sufficiently mitigated through scheduling construction activities so that they do not conflict with resident wildlife during times of high stress. The appropriate state or federal management agency has guidelines defining calendar dates when activity should not occur for the species in question. Scheduling for construction may vary with the environment and climatological circumstances for any given year (FEIR/S Mitigation Measure #76).

The applicant shall prohibit vehicle operation off the ROW by construction workers, including construction work and employee access, except where specified by the landowner or land management agency or where roads already exist (FEIR/S Mitigation Measure #77).

Limit speed of vehicles along the ROW and access roads to 20 mph in sensitive habitats that support species of special concern with limited home ranges and mobility, e.g., the blunt-nosed leopard lizard and the desert tortoise. Construction and maintenance employees shall also be advised that care should be exercised when commuting to and from the project area to reduce road mortality (FEIR/S Mitigation Measure #78).

The applicant shall conduct detailed surveys prior to construction as directed by the appropriate governmental agencies in order to identify precise locations of viable populations. Surveys shall be conducted at the appropriate season and time to ensure that targeted species can be enumerated. The applicant shall utilize survey results to avoid or alleviate impacts that would likely result in the loss of individuals of species of special concern (FEIR/S Mitigation Measure #82).

The length and duration of open trenches shall be kept to the minimum extent feasible. Limiting the length and duration of open trenches in areas of sensitive species shall be developed on a site-specific/species-specific basis. The amount of open ditch and duration of open ditch in areas of sensitive species shall be governed by cooperation of applicants and appropriate land management/wildlife agencies. Before backfilling, the trench shall be inspected for trapped animals. All such animals shall then be released in the same general locality, but beyond the area of disturbance (FEIR/S Mitigation Measure #86).

Trenches shall be inspected daily for species of special concern that might have fallen into the trenches. Any species of special concern found should be handled in accordance with prearranged agreements with the appropriate agencies (FEIR/S Mitigation Measure #87).

Access to the ROW shall be restricted wherever feasible by constructing barricades, fences with locked gates at road intersections, and by posting signs. State wildlife agencies, as well as federal agencies, shall be consulted to help identify and establish wildlife management areas. Vehicle access (except for administrative purposes) to these areas shall be restricted. On federal land, as directed by the Forest Service/BLM, temporary and/or permanent structures shall be installed at specific locations along the ROW and other disturbed sites to prevent off-road vehicle access (FEIR/S Mitigation Measure #88).

All disturbed designated critical habitat and habitat suitable for species of special concern shall be revegetated to predisturbance levels following guidelines formulated in consultation with the appropriate governmental agencies (FEIR/S Mitigation Measure #90).

To minimize permanent and temporary construction disturbances, project-related vehicle traffic, construction activities, and equipment storage shall be restricted to established roads, designated access roads, the construction ROW, storage areas, staging and parking areas, and other designated project areas including the placement of portable restroom facilities. Off-road traffic outside of designated areas shall be prohibited. Parking, storage, and other areas shall be designated by flagged lath stakes at least 24 inches above ground height placed in line of sight with a maximum spacing of 200 ft. These areas shall be examined during preconstruction surveys for state and/or federally listed species, and shall be established in locations disturbed by previous activities, to the extent possible. The construction ROW shall also be clearly marked at the centerline and outside boundaries. The outside boundaries of the ROW shall be staked with at least 24 inch-tall flagged lath at a maximum interval of 200 ft prior to construction. If construction activities are repeatedly documented outside of these flagged areas, the outer boundaries of the ROW must be delineated by a continuously taped boundary.

All access roads, both existing and proposed, shall be flagged. Only flagged access roads shall be used.

Unauthorized, public off-road vehicle use of the ROW, staging areas, and access roads by the construction crews shall be prevented by signs and monitoring by construction monitors. After construction is completed, unauthorized vehicle use shall, to the maximum extent practicable be prevented by physical barriers and signs.

Only permitted authorized vehicles which have been inspected to insure fire safety requirements shall be permitted on the ROW.

Project-related vehicles shall observe a 20 mph speed limit in all project areas within listed species habitat, except on county, state, or federal highways. Speed limits shall be assessed by the environmental monitors and reported to the construction supervision and Project Environmental Coordinator for corrective action. Construction activities, exclusive of identified night maintenance and security activities shall be limited to daylight hours, except for travel to and from the construction sites (EIR Amendment: Appendix C, Section 3.1.2.1).

Trench depths will in general range from 4 to 8 ft. The trench must be backfilled as quickly as possible following lowering of the pipe. The maximum length of open trench at any one time shall not exceed 10 miles. For trenches not filled at the end of the day, escape ramps for wildlife shall be installed at distances no greater than 0.25 mile apart.

Open, active work areas and trenches within listed species habitat shall be inspected by environmental monitors every morning (no later than one hour after sunrise) and immediately prior to initiation of daily construction activities, every evening (no more than 1/2 hour after sunset), and periodically (every 2-4 hours) throughout the day. This shall be accomplished seven days a week when open trenches are present. Environmental monitors shall remove any trapped state and/or federally listed animals from the areas as described under species-specific mitigations. A Memorandum of Understanding from the California Department of Fish and Game and a federal permit from the U.S. Fish and Wildlife Service must be obtained to handle the animals.

When blasting is required for trench excavation, mats, shields, or earth padding shall be used to protect sensitive vegetation as well as personnel and nearby structures. Listed species of burrowing animals shall be removed from the blast area and up to 50 ft from the ROW in areas to be blasted. Burrows of listed species 50-200 ft from the blasting zone shall be flagged by an environmental monitor prior to blasting and shall be surveyed afterward. Burrows of listed species which collapse as a result of blasting shall be hand-dug to remove any trapped animals (EIR Amendment: Appendix C, Section 3.1.2.4).

All open construction pipes, culverts, or similar structures stored in stockpile areas or on the ROW for overnight periods shall be inspected for small mammals or reptiles (e.g. San Joaquin kit fox, desert tortoise) before the pipe is buried, capped, or otherwise used or moved in any way. All in-place pipeline segments shall be capped daily until backfilled to

prevent entry of animals. Checks around vehicles and other equipment before moving or operating equipment for other sensitive wildlife species shall also be completed prior to moving. If a state and/or federally listed species is identified during these inspections, only an environmental monitor may be utilized to remove the animal (EIR Amendment Appendix C Section 3.1.2.6).

To prevent harassment, mortality, or destruction of dens/burrows of wildlife species, pets shall not be allowed on the ROW, staging areas, access roads or any other sites required for construction activities. Firearms shall also be prohibited in the same areas. Compliance with these restrictions is mandatory. No unauthorized construction workers shall be permitted off of the established ROW at any time. Unauthorized workers shall not be permitted at construction areas during non-scheduled hours (EIR Amendment: Appendix C, Section 3.1.2.7).

To avoid attracting species of concern and potential predators, all food-related trash and litter (wrappers, cans, bottles, food scraps) shall be placed in closed containers and disposed of daily. The working ROW of each spread shall be policed daily to remove any trash or litter which may not have been disposed of properly. Food items may attract wildlife species onto the project site at night, consequently exposing them to construction-related or other types of hazards (EIR Amendment Appendix C Section 3.1.2.8).

Hazardous materials that are most likely to be used in construction areas include explosives, fuels (gasoline and diesel), lubricants, and solvents. Refueling and storage of these materials shall occur in previously disturbed areas and not be allowed within 200 yards of a flagged sensitive plant species or sensitive wildlife habitat feature (e.g., den, burrow, etc.), nor within 200 yards of a perennial stream or riparian habitat. Areas where refueling or storage of hazardous materials is prohibited shall be marked by the environmental monitors. The storage of these materials near streams shall be consistent with CDFG code 5650 (EIR Amendment: Appendix C, Section 3.1.2.9).

No intentional killing or collection of either plants or wildlife shall be permitted. If wildlife species, e.g., rattlesnakes enter the construction corridor, they shall be removed by a qualified environmental monitor. No intentional damage to trees or other vegetation shall be permitted outside of the construction ROW; this shall include the collection of plants including cacti without prior authorization (EIR Amendment: Appendix C, Section 3.1.2.11).

The objective of post-construction access control is to implement procedures to limit access on the permanent ROWs and thus prohibit a new travel corridor after construction in order to limit additional intrusion into wildlife habitat and speed recovery and revegetation of the ROW. Approved means of access shall be a component of environmental training for operational personnel.

Required inspection of the ROW shall be conducted by air to detect encroachment by unauthorized vehicles or machinery, damage to equipment that may not be detected by instrumentation, and success of erosion control and revegetation. This shall be

supplemented by required Department of Transportation inspections on foot. Travel by maintenance crews shall be restricted to existing access roads. Maintenance vehicles must avoid sensitive areas that have been designated in the post-construction monitoring program.

The permanent ROW may be used to access the pipeline in emergency situations as defined under conditions stipulated by the Agencies. Damage to vegetation on the ROW shall be fixed and the ROW restored as soon as possible following the emergency. The appropriate agencies shall be notified.

Signs shall be posted indicating the ROW is closed to vehicles. The signs shall state "Pipeline Right-of-Way Closed To All Vehicles To Protect Plants and Wildlife". Intersection of existing roads with the permanent ROW shall be clearly marked with signs identifying the presence of a high pressure pipeline. Earthen berms shall be placed at all intersections with access to the ROW where authorized by landowners. Water bars and rock mulches installed on the ROW during reclamation may also serve to deter vehicle use of the ROW (EIR Amendment: Appendix C, Section 3.1.3.3).

Populations of or potential habitat for desert tortoise were found along the Common Facilities Pipeline between MP 142 and 225. Mitigation requirements and procedures are outlined below for the species. Specific details on the handling procedures for desert tortoise are presented below.

- o All personnel handling desert tortoises shall approved by the U.S. Fish and Wildlife Service and the California Department of Fish and Game. Each monitor shall be permitted by the USFWS and the CDFG to handle tortoises. Additionally, each monitor shall undergo an agency mandated training program in the handling of desert tortoises. A handbook shall also be developed and approved by the Agencies and distributed to each monitor detailing survey, monitoring, and handling requirements.
- o Based on current USFWS and CDFG biological opinions, construction of pipelines within fair to good quality tortoise habitat as defined by the desert tortoise survey maps submitted by Mojave/Kern River shall be conducted between March 15 and June 15 (spring activity period) when the tortoises are active and can be easily transported off-site with presumably less mortality than removing the animals during months when they are inactive. Areas required for this period of construction include: MPs 142-194.1; 204.1-211.9; and 220.3-225.0 on the Common Facilities portion of the route.

Construction shall start in these areas no earlier than March 15 and each company shall submit to the responsible agencies a construction schedule and location of pipeline segments to accomplish the construction no later than February 15. If construction delays are encountered which will require construction in these areas beyond June 15, responsible agencies shall be notified at least by June 1 and

procedures outlined below for collapsing of burrows and monitoring of the corridor shall be followed.

Other areas of the pipeline within tortoise habitat can be constructed when the tortoises are inactive following the set procedures provided in this document.

- o Rights-of-way shall be surveyed by qualified biologists within 48 hours before construction activities (i.e., grubbing, grading, trenching) begin to ensure maximum avoidance of impacts to desert tortoises and their burrows. All desert tortoise burrows, as well as large mammal burrows that could be used by desert tortoises, shall be flagged with a different color of flagging from that used to denote operational area boundaries. Inactive burrows shall be plugged (e.g., newspaper and earth) or collapsed. Two types of burrows shall receive special marking: active burrows; and those burrows which, because of soil types and/or historical use, represent a major energy expenditure by desert tortoises for construction. These burrows are henceforth referred to as "special resource burrows." The active and special resource burrows shall be mapped and presented to construction engineers to determine the feasibility of minor rerouting of the pipeline to avoid these burrows.
- o Burrows that cannot be avoided shall be treated as follows: between 8 and 48 hours prior to the commencement of clearing and grading activities, all burrows not designated for avoidance, except for special resource burrows, shall be excavated by hand by qualified biologists. All active burrows shall be recorded and desert tortoises that are encountered shall be moved.
- o Each desert tortoise that is encountered during clearing and construction activities shall be given an identifying number; have its sex, weight, and maximum carapace length recorded; and be permanently and uniquely marked using criteria listed on the data sheet. Identification numbers for the project, as well as those used for other nearby projects, shall be supplied by the responsible agencies. A 35mm slide shall be taken from directly above the animal to show a full view of the carapace after processing. The data sheet shall include the above information plus the location, date, time, and name of the individual collecting the data. All information shall be submitted to responsible agencies upon completion of clearing and again in the post-construction report.

Researchers shall wear disposable gloves when handling each tortoise. These gloves shall be disposed of after each tortoise is handled. Any desert tortoise that voids its cloaca while being handled or during processing shall be hydrated by an Agency approved method.

During pioneer clearing activities (i.e., the initial pass through the ROW with heavy equipment, with the intent to clear or crush vegetation), desert tortoises that are encountered shall be processed, then moved a minimum of 150 ft off the construction ROW and placed under a shrub in the shade. Desert tortoises that are

encountered when the temperature exceeds 90°F shall be processed and, unless temperatures are decreasing, shall be held overnight in a clean cardboard box as detailed above and released the following morning shortly after sunrise. The location of each tortoise that is held overnight shall be accurately located by flagging or other means, and the tortoise shall be released as close to the location it was removed from as possible. Desert tortoises encountered within two hours before sunset shall be placed in a clean cardboard box of appropriate size with one tortoise to a box and held overnight in a cool location. The box shall be covered and kept by a designated monitor until the desert tortoise is released the following morning.

If desert tortoises are encountered on the ROW during construction, each desert tortoise shall be processed, then moved a minimum of 150 ft off the construction ROW in the direction of its travel and placed under a shrub in the shade. If appropriate shade cannot be found, the desert tortoise shall be held overnight and released as detailed above. Any desert tortoise encountered two hours before sunset shall be kept and released as detailed above. Desert tortoises that are found on the construction ROW more than three (3) times shall be penned in a temporary 10 ft by 10 ft enclosure around a burrow next to the right-of-way. This shall be removed after construction activities have ceased. Alternatively, the right-of-way may be fenced temporarily with tortoise proof fence.

- o In the event construction is delayed so that construction will occur within high quality habitats past June 15, presurveys, hand excavation of burrows, and movement of tortoises prior to June 15 shall take place. These areas shall be monitored closely to assure that tortoises do not try to reestablish burrows prior to construction.
 - o Tortoises may be found in burrows which cannot be avoided, or may be found above-ground if there is a period of warm weather. Tortoises excavated from unavoidable burrows along the route shall be relocated to unoccupied natural or artificially constructed burrows immediately following excavation. The artificial or unoccupied natural burrows shall be constructed approximately 150-300 ft from the original burrow. The artificial burrow shall be a similar size, shape, and orientation to the original burrow.
- Tortoises removed from occupied burrows and relocated to newly constructed burrows shall be handled using disposable surgical gloves. The gloves shall be disposed of after each handling.
- o Activities requiring a biological monitor shall include, but are not limited to: Surveying, Pioneer Clearing, Final Clearing and Grading, Ditching, Pipe Stringing and Bending, Welding, Backfilling and Taping, Hydrostatic Testing, Tie-In, and Final Cleanup (EIR Amendment: Appendix C, Section 3.2.2.1).

Mojave ground squirrel habitat occurs along the Common Facilities portion of the route alignment between MP 162 and 214. The following procedures shall be implemented within these areas:

- o The alignment shall be surveyed where feasible between April 1 and May 15 in order to identify areas containing Mojave ground squirrels. Areas located by observation shall be flagged with color coded flags. Where possible the burrow areas shall be avoided by minor changes in alignment.
- o Burrows within Mojave ground squirrel areas within the alignment shall be hand dug prior to construction to reduce mortality. Any animal found in the state of torpor shall be placed under the care of an approved veterinarian and released under the direction of CDFG biologists (EIR Amendment: Appendix C, Section 3.2.2).

Although no Tehachapi slender salamanders were located during the preliminary field surveys, potential habitat for this species exists near 1.5 miles of the proposed Common Facilities route. The proposed pipeline route will not directly impact Tehachapi slender salamander habitat, but the line is in close enough proximity to indirectly impact habitat. Therefore, the following preventative mitigation measures shall be implemented to avoid possible impacts.

- o Preconstruction surveys shall be conducted to identify and mark potential habitat near the ROW and access roads. If necessary, additional adjustments to the route shall be made to avoid direct impacts to Tehachapi slender salamander habitat.
- o Extracted materials removed during the trenching operation shall be contained as to not impact potential Tehachapi slender salamander habitat downslope from construction activities. Hay or straw bales shall be ground, staked out, and positioned on the edge of the ROW as required to prevent movement of excavated material.
- o Heavy equipment access routes and movements shall be monitored to avoid sensitive areas. These include areas vegetated by canyon oak and canyon crossings where erosion may occur as a result of lost vegetative cover.
- o Construction near Tehachapi slender salamander shall occur between March 1 and October 31 to minimize the potential for deposition of excavated material onto salamander habitat (EIR Amendment: Appendix C, Section 3.2.3.1).

Preconstruction surveys shall be conducted within 14 days where possible but no later than 45 days prior to construction to identify all known or potential kit fox dens within the ROW or 150 ft on either side of the ROW. Wherever feasible, a 50 ft exclusion zone shall be placed around all known or probable kit fox dens and a 150 ft exclusion zone shall be placed around natal dens. This shall be accomplished by modification of the pipeline alignment around known kit fox dens, localized reductions in the width of the construction ROW, and a minimization of construction impacts to the least possible area within the corridor. In

addition, preconstruction surveys shall include the area to be affected by water discharge during hydrostatic testing.

If a kit fox den cannot be avoided, the USFWS and the CDFG shall be notified and with their concurrence, the following procedures shall be implemented. Prior to surface disturbing activities, subject dens shall be inspected by a qualified wildlife biologist for telemetric or surface evidence for kit fox use. If the subject den is determined to be empty, the den shall be completely excavated by or under the direct supervision of a qualified biologist and then backfilled and compacted to preclude later use by kit foxes during the construction period. Any kit foxes discovered inside a den during excavation shall be allowed to escape unharmed before backfilling. If the subject den is determined to be currently occupied by kit foxes, progressive plugging of the den shall be employed to discourage kit fox use of the den until the den is determined unoccupied or for a minimum of five nights, whichever ever comes first.

Known or potential natal dens shall not be excavated from January 1 through April 30 unless otherwise approved by Agencies.

All pipes and culverts potentially utilized by kit foxes for denning that will be removed or disturbed during construction shall be thoroughly inspected for kit foxes before disturbance begins. If any pipe or culvert contains a kit fox, the fox shall be allowed to escape unharmed or shall be removed to a safe nearby location by a qualified biologist via trapping or plunging (EIR Amendment: Appendix C, Section 3.2.4.1).

Preconstruction surveys shall be conducted within potential habitat for the Tipton and giant kangaroo rat. Where required, this shall also include live trapping by permitted biologists.

Wherever feasible, burrows of these species shall be avoided by construction through minor rerouting of the pipeline. In the event that these burrows cannot be avoided, the CDFG and USFWS shall be notified. With their concurrence and under their supervision, the burrows may be excavated or trapping or relocation of kangaroo rats may be recommended in an attempt to reduce mortality potential (EIR Amendment: Appendix C, Section 3.2.4.2).

Preconstruction surveys shall also be conducted for the San Joaquin Antelope Ground Squirrel prior to initiating construction activities. These surveys can be in conjunction with surveys for other species in the San Joaquin Valley. Burrows of this species shall be flagged and avoided where possible by rerouting the line or constricting of the ROW.

Where avoidance is not possible, potential burrows shall be hand excavated prior to construction to reduce the potential for mortality (EIR Amendment: Appendix C, Section 3.2.4.3).

To reduce take in blunt-nosed leopard lizard habitat, construction shall be limited to the period April 15 to September 15, when the species is active.

Known blunt-nosed leopard lizard burrows or refugia in the construction zone shall be hand excavated and destroyed, with the lizards allowed to escape prior to construction.

Speed limits in blunt-nosed leopard lizard habitat shall be restricted to 20 mph (EIR Amendment: Appendix C, Section 3.2.4.4).

In addition to these measures to reduce impacts to sensitive wildlife species habitat, a habitat compensation program has been proposed to replace the habitat of the desert tortoise. It is the opinion of the CDFG, USFWS and BLM agency personnel that on-site mitigation measures alone will not provide adequate mitigation for impact to the sensitive species listed above. Habitat loss due to the Mojave project will be further compensated by acquisition of habitat off-site which supports the species, and the management of this habitat for wildlife enhancement purposes in perpetuity. The off-site compensation acreages have been calculated based on acres of habitat impacted, the term of the impact, the condition and classification of the impacted habitat, the proposed reclamation, and other factors.

These measures would eliminate most significant impacts to state and federally listed species. The loss of individuals or their habitat which occurs as a result of construction would still be an unavoidable significant adverse impact.

ALTERNATIVES

No Project Alternative

While the EIR does not address whether the No Project Alternative would result in greater or lesser impacts to vegetation, it is assumed that by not building the project would result in fewer impacts. However, the No Project Alternative would not provide important benefits to the State of California which would result from operation of the Mojave Pipeline, particularly with respect to additional tax based revenues associated with the construction and operation of the facility, air quality benefits in the Kern County region, and a lessened dependence on foreign oil sources as a result of the Enhanced Oil Recovery goals of the project.

No Action Alternative

While the EIR does not address whether the No Action Alternative would result in greater or lesser impacts, it is assumed that the building of the Mojave project as originally proposed would result in greater impacts to native vegetation than the route currently under consideration.

PGT/PG&E Alternative

While the EIR does not address whether the PGT/PG&E Alternative would result in greater or lesser vegetation impacts, the CPUC Final EIR indicated that significant and unavoidable soils impacts would occur as a result of the building of the project. However,

the PGT/PG&E Alternative would not overlap with the proposed Joint Mojave-Kern River Proposal and would not serve the same gas market place. As a result the feasibility of the PGT/PG&E alternative must be questioned. In order for the PGT/PG&E Alternative to be feasible an unknown amount of additional construction would have to be undertaken.

Alternative Energy Sources

While the EIR does not address whether the utilization of Alternative Energy Sources would result in greater or lesser vegetation impacts, its utilization would result in fewer soils related impacts in the short-term. The Alternative Energy Sources Project would not result in significant long-term benefits due to the lack of adequate supplies of energy. Utilization of fuels other than natural gas would not provide important benefits to the State of California which would result from operation of the Mojave Pipeline, particularly with respect to additional tax based revenues associated with the construction and operation of the facility, air quality benefits in the Kern County region, and a lessened dependance on foreign oil sources as a result of the Enhanced Oil Recovery goals of the project.

Route Alternatives

A number of routing alternatives were examined in the EIR. Mojave has been directed by the FERC certificate to utilize an alternative route through the Tehachapi Mountains to avoid conflicts with the land use plans of the Stallion Springs Community. Impacts associated with the El Dorado Alternative through the Tehachapis would entail less impact to sensitive wildlife species than either the Mojave or Kern River routes as proposed. In addition, routing alternatives in the san Joaquin Valley were developed to reduce impacts to sensitive wildlife species such as the Tipton kangaroo rat.

COMMON FACILITIES

CULTURAL RESOURCES: Construction

Impact: Potential disturbance to at least one site eligible for listing on the National Register of Historic Places.

Finding: A) Changes or alteration have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

B) Such changes or alterations are within the responsibility or jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by other such agencies or can or should be adopted by other such agencies. (California counties; Bureau of Land Management (BLM); Federal Energy Regulatory Commission (FERC)).

FACTS SUPPORTING FINDING:

The criteria for evaluating cultural resources on federal lands and lands impacted by federally funded or licensed projects are the eligibility criteria of the National Register of Historic Places (NRHP). The criteria apply to resources (prehistoric and historic sites) significant to the national, regional, state, or local levels. Adverse effects on resources either direct or indirect are considered for sites listed on the NRHP or which meet the criteria of eligibility.

For the purposes of the California Environmental Quality Act (CEQA), the criteria for evaluating cultural resources on state and private lands in California are significance criteria listed in Appendix K of the CEQA Guidelines.

Federal agencies cannot authorize federally licensed projects without prior compliance with Section 106 of the National Historic Preservation Act. This involves consultation with the State Historic Preservation Office (SHPO) and the Advisory Council on Historic Preservation to determine the existence and significance of cultural resources sites and the development of procedures to mitigate adverse effects.

Cultural resources impacted by the Common Facilities portion of the route in California include archaeological and historical sites that are located in areas which would be directly or indirectly affected by project construction and operation. Direct impacts would result from actual surface disturbance of a site's spatial configurations or stratigraphy during a facilities construction or use. Construction and/or maintenance activities would destroy cultural resources during the clearing, grading ditching, hauling stringing and placement of pipe, as well as during backfilling. Other impacts include disturbances associated with vehicular activity associated with access roads, storage facilities, parking areas etc.

Indirect impacts refer to the increased potential for site disturbances due to a general intensification of the land use activities in the area surrounding the cultural sites. The construction of the pipeline may result in increased access into an area where cultural resources could be impacted by intentional disturbances (e.g., unauthorized excavation) or unintentional disturbances (e.g., off-road vehicle use).

Both prehistoric and historic period cultural resources were documented along the Common Facilities route in California. Twenty-two resources (12 prehistoric and 10 historic) were recorded; one was recommended as eligible to the NRHP. The one resource which was recommended as eligible that would be potentially affected by the project was recommended for avoidance.

San Bernardino and Kern counties would have jurisdiction over private lands along the Common Facilities route, while the BLM would administer the federal lands along the route.

Mitigation measures have been developed which were designed to reduce impacts to cultural resources. These measures included conduct of a records search to determine the presence of known cultural resources along the proposed route; an intensive 100 percent inventory of the route; preparation of a survey report assessing the significance of the sites identified and if necessary a testing plan to determine the eligibility of a property; a data recovery plan to reduce impacts to eligible sites which cannot be avoided; and a plan for monitoring of construction in areas suspected of containing buried cultural resources and the treatment of those sites. All of the measures discussed above with the exception of the monitoring of construction have been completed.

Implementation of these measures should reduce significant impacts to non-significant levels.

COMMON FACILITIES

PALEONTOLOGY: Construction

Impact: Potential disturbance to significant paleontologic formations could occur along approximately 50 miles of the Mojave route.

Finding: A) Changes or alteration have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

B) Such changes or alterations are within the responsibility or jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by other such agencies or can or should be adopted by other such agencies. (California counties; Bureau of Land Management (BLM); Federal Energy Regulatory Commission (FERC)).

FACTS SUPPORTING FINDING:

Paleontological resources were examined based on a records and literature search conducted for the FEIR/S (Morales et al. 1987) of all of the pipeline routes in California. The results of these studies indicated that significant paleontologic resources exist within the construction ROW of the proposed project. Approximately 110 miles of the Common Facilities route within California contain paleontologically significant deposits that would be adversely affected by construction of the pipeline.

Mitigation measures have been proposed to reduce these impacts to significant paleontologic deposits. The FEIR/S recommended that pre-construction surveys be conducted to determine the presence of significant paleontologic remains; to develop site-specific mitigation measures in areas where significant remains were identified; to implement those measure during the construction phase; and to monitor construction activities in areas determined to potentially contain significant fossil remains.

Implementation of these measures should result in a reduction of impacts to paleontological remains to non-significant levels.

DEVELOPMENT BENEFITS

The California State Lands Commission finds that the Projects will generate the following benefits:

Air Quality

Operation of the Joint Mojave-Kern River Pipeline Project will result in a net air quality benefit for the Kern County Air Basin. This benefit would be directly related to the switch from the utilization of oil-fired steam generation plants utilized in the production of steam for the Enhanced Oil Recovery operations in Kern County. The proposed projects were designed to bring an ample supply of natural gas to Kern County California. Kern County is a non-attainment area for the Federal ozone standard of 12 parts per hundred million. Oil-fired steam generators used in thermally enhanced oil recovery are major sources of nitrogen oxides emissions which react with reactive hydrocarbon to form ozone.

Reduced nitrogen oxides emissions generally decrease the ozone formation. Thus ozone quality in Kern county can be improved by switching the steam generators from burning oil to a cleaner fuel such as natural gas. Models using the PARIS (Plume-Airshed Reactive-Interacting System) were completed to analyze the net ozone air quality benefits (DEIR/S, Air Quality/Meteorology Technical Report, 1987). The results of the modeling indicate that reduce emissions due to fuel switching from steam generators used in thermally enhanced oil recovery can have a net ozone air quality benefit.

Economic

Economic benefits associated with the construction and operation of the proposed project would be most significant in San Bernardino County during the construction phases of the projects. The projects would make significant contributions to the tax base of both Kern and San Bernardino counties. In addition to these positive impacts, the potential for increased oil production in the Kern County area would provide additional jobs to the area as well as contribute to energy self-sufficiency for the U.S.

EXHIBIT H

CALIFORNIA STATE LANDS COMMISSION MITIGATION MONITORING AND REPORTING PLAN FOR THE MOJAVE-KERN RIVER ENVIRONMENTAL IMPACT REPORT

INTRODUCTION

This document contains the Mitigation Monitoring Plan (the Plan) for the Mojave-Kern River Natural Gas Pipeline Project which entails the construction of 482 miles of 16- to 42-inch diameter pipeline within the State of California.

Recently adopted California statutory legislation (AB3180, CORTESE) requires public agencies to adopt monitoring programs to ensure that mitigation measures contained in an Environmental Impact Report (EIR) are effectively implemented. This document will be designed to ensure that mitigation measures contained in the Mojave-Kern River-El Dorado Natural Gas Pipeline Projects Final Environmental Impact Report/Statement, the Final Supplement to that document and the Mojave-Kern River Pipeline Projects Environmental Impact Report Amendment (State Clearinghouse Number 85081912) are properly monitored and implemented.

This plan consists of a narrative text and attachments and will serve as a part of the California State Lands Commission's Mitigation Monitoring Program for this project.

IMPLEMENTATION

Responsibilities

The Mojave Pipeline Company and/or Kern River Gas Transmission Company (the applicants), their representatives, or successors-in-interest remain responsible for full implementation of all mitigation measures adopted from the Final Environmental Impact Report and the Final Amendment to the Final Environmental Impact Report.

The California State Lands Commission (SLC) shall be responsible for administering and assuring full compliance with the provisions of this Plan. The SLC may delegate monitoring activities to other agencies, consultants, or contractors. The SLC will also ensure that monitoring reports are received complete, in a timely manner, and that violations are promptly corrected.

Reporting

Verification of Compliance and Non-Compliance Reports shall be prepared by the project monitors using SLC approved forms (examples of the forms for this procedure are provided in Attachment A). A copy of each report will be mailed to Mojave and Kern River or its designated representative, as well as to all interested federal, state, local agencies. Progress toward completion of the required mitigation program, or violations thereof, shall be reported at intervals prescribed by the SLC to Mojave and Kern River and interested agencies.

COMPLIANCE

It is recommended that an SLC or SLC designated site monitors be present at the site on a continuous basis throughout the construction and restoration phases of the projects to ensure continuous compliance. Verification of monitoring-in-progress and verification of completed mitigations will be undertaken on a construction spread basis and shall be reviewed by the SLC. The SLC shall notify the applicants in writing of successful completion of a mitigation measure within 5 working days of receipt of a report verifying completion.

VIOLATIONS

If a report identifies a violation of the mitigation program, the SLC, within 1 working day of receipt, shall:

- o notify the applicant(s), or its designated representative(s) by telephone and order immediate compliance,
- o prepare a written notification to the applicant(s), or its designated representative(s) of the violation ordering compliance, and
- o identify the need for a follow-up field inspection.

If compliance is not achieved, work should be stopped until compliance is achieved and notification is given by the SLC that work may commence.

If a dispute arises concerning the implementation or success of a mitigation, the dispute may be referred for legal action. In such a case, work on the project will be stopped until the dispute is resolved.

FEES

All costs for the administration and implementation of the Plan shall be paid by the applicants.

ENFORCEMENT AND PENALTIES

A determination of non-implementation or non-compliance will result in immediate notification by the SLC to the applicants as described above. If possible, the SLC or SLC designated monitors will order and achieve immediate compliance. If the project is not brought into immediate compliance, a stop-work-order may be prepared. The period of time the stop-work-order will be enforced will be the time required to assure compliance has been achieved. Work on the project may not be resumed until compliance is achieved. Violations of an approved mitigation measure which are not discovered until after construction has been completed will result in one or more of the following actions:

- o written notification and demand by the SLC for correction,
- o issuance of an infraction citation,
- o filing for legal action,
- o forfeiture of any bond trust account, or other financial assurance, and/or
- o action to recover funds assured under a letter of credit.

**MITIGATION MONITORING PLAN IMPLEMENTATION
FOR THE STATE OF CALIFORNIA**

An abridged version of each mitigation measure included in the EIR will be listed in the Monitoring Plan in sequential order as they occur in the EIR. In addition, the full text of the mitigation measure from the EIR will also be included for reference. For each mitigation measure, the program table includes specific information as to when the measure is to be applied and specifies who will be responsible for monitoring the particular mitigation measure. Certain plans or reports require preparation by qualified individuals, and these are specified as needed. If not apparent in the wording of the mitigation measure, the criteria to be utilized to determine whether the measure has been implemented satisfactorily is provided. Satisfactory completion of a mitigation measure or weekly compliance with the mitigation measure is indicated by a signature and a date in the appropriate spread column.

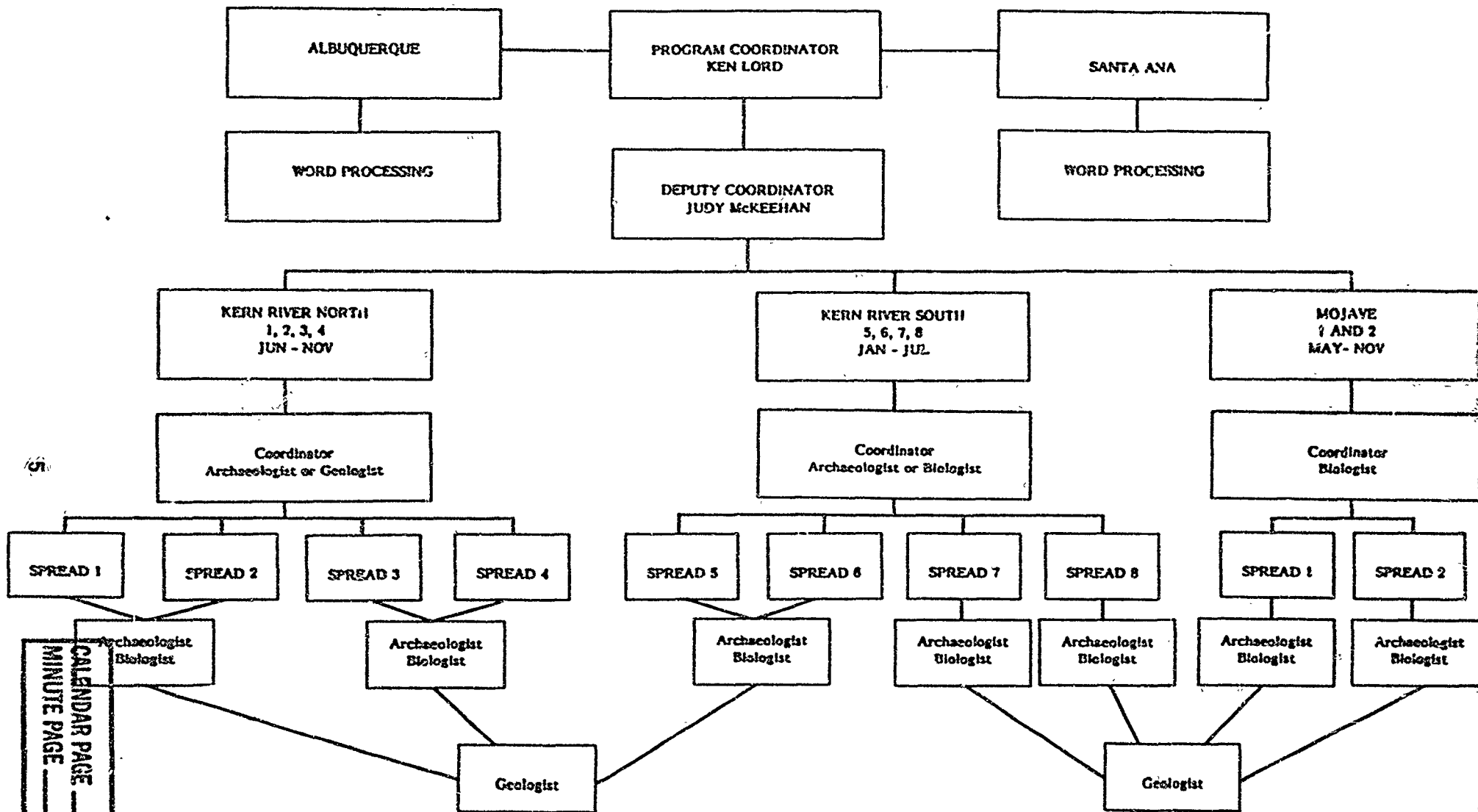
The procedures for monitoring certain activities are discussed below:

The program is designed to oversee the monitoring operations of the individual pipeline projects. This will be accomplished by a three part system of in-field observation of all construction activities, tracking of all paperwork filed by the pipeline company, and post-construction compliance monitoring. Figure 1 provides an organizational chart for the entire project including the portions outside of the State of California.

Standardization of mitigation measures was accomplished by SLC by the completion of the EIR Amendment and certain appendices. This document presented a compilation of the mitigation measures required within the State of California for all appropriate resource categories. In most instances these measures will be those presented in the Mojave-Kern River-El Dorado Natural Gas Pipeline EIR/S; however, certain measures concerning cultural resources, biology and geology will be more detailed and more locality specific. The preparation of this booklet of mitigation measures forms the basis for the monitoring efforts of all concerned parties.

- A. The in-field monitoring program shall consist of a number of teams of monitors who will track the field efforts of the pipeline environmental monitors. These teams will vary in composition dependant upon field conditions. In general a monitor will be present with each construction spread and will be responsible for observing the construction activities in conjunction with the company monitors. Their job will be to assure quality control of the company environmental monitors rather than directly participating in the monitoring activities. Tasks will include the following:
1. Following all activities associated with a construction spread to determine that all mitigation measures are adhered to.

Mojave/Kern River Mitigation Monitoring



CALENDAR PAGE 406
 MINUTE PAGE 801

2. Observing and assisting the company environmental monitor in the completion of tasks. This would include assuring that proper procedures are used during the construction phase.
3. Provide written documentation on the activities carried out during the field observations as to the techniques used, the success of the techniques and possible solutions to any difficulties identified in the field.

The in-field monitors will accomplish this work by having copies of all construction diagrams for the spread they are assigned to. These construction diagrams should specifically outline the mitigation measures which must be employed for all portions of the spread. They should provide information on the endangered plant and animal species expected to be found in the area, the cultural resources identified within both the construction ROW and a buffer zone adjacent to the ROW and any general guidelines for construction mitigations and rehabilitation procedures. In addition to these construction drawings, they should also have a complete package of all mitigation measures which must be enforced. These guidelines should adequately address all of the procedures which must be followed during both construction and revegetation and rehabilitation.

In most instances the in-field monitor should be a generalist who will have some knowledge in the fields of soils, biology, geology and cultural resources. Certain portions of the routes may require a more specialized monitor. Under these conditions a specific monitor may be sent to an area. This would occur when sensitive plant or animal species are present, particularly sensitive cultural resources are encountered or other sensitive activities are occurring. These areas will be identified prior to initiating field work so that scheduling can be accomplished.

In-field monitors should serve primarily in an observational capacity, however, certain conditions may warrant a more active role. If an in-field monitor observes an infraction of the mitigation procedures they should discuss the infraction with the company environmental monitor. If no response is given they should immediately contact the company On-Site Environmental Coordinator (OEC).

In-field monitors will report to SLC's Monitoring Program Supervisor (MPS) as well as other State and Federal agencies within California who wish to participate in the program. They will provide weekly summaries of the activities accomplished along their spread. They will identify any problems, report offenses and will keep apprised of the progress of the spread so that scheduling for the specialists can be updated.

- B. The Monitoring Program Supervisor (MPS) will be the main point of contact between the SLC in-field monitors, any other State or Federal agency environmental compliance supervisors, and the pipeline company's Field Environmental Supervisor (FES). The main responsibility of the MPS will be to supervise the work of the in-field monitors and to track the compliance procedures as outlined in the FERC and SLC

certificates and the BLM right-of-way grant. They will be responsible for scheduling and assigning monitors to specific spreads, determining when and where specialist monitors will be required and tracking all of the paperwork filed both by the SLC monitors as well as the weekly paperwork and the monthly summaries filed by the company FES.

The MPS will prepare monthly reports which will be submitted to the SLC and other interested agencies and copies of the report to each company FES. These reports will provide information on the areas under construction, the timing of construction, the amount of time spent from initial blading to final rehabilitation and any problems encountered. Detailed reports on wildlife and plants encountered, cultural resources encountered and other mitigation measures required will be presented. These data will be compared to the original documentation presented on the construction specification drawings. This information coupled with incident reports on areas where the mitigation plan was not followed will be provided. The circumstances of the discrepancies will also be included, e.g., the mitigation plan was not adequate to meet the needs of a specific situation, mitigation measures were inadvertently violated, or measures were intentionally violated. If the mitigation measures were not adequate to meet the needs of certain situations, strategies to revolve the problem will be discussed. This should include discussions with in-field personnel, discussions with the company FES and OEM's, and possibly discussion with experts in the particular discipline. When solutions are found, memos should be sent to all company FES to alert them to the problems and the proposed solutions.

- C. The final phase of the SLC monitoring program will involve conducting post-construction inspections. This will be accomplished by examination of the company provided records, examination of state and federal land managing agency records, and direct in-field observations. In-field observations will be accomplished by either on-ground inspection and/or helicopter inspection. The goals of the program will be to determine if the mitigation measures and the revegetation/rehabilitations plans as implemented by the pipeline companies have been successful. This will be accomplished at the end of the fifth year of operation to assess the approximate acreage for which revegetation has been successful and to assess the relative success of keeping vehicle traffic off the ROW and other mitigations applicable to the post-construction period.

Final field forms will be pipeline spread specific, rather than containing information on all spreads. This will allow for space for a signature, date of approval and a space for notes and comments concerning the monitoring program during fieldwork.

Assumptions for mitigation monitoring within the State of California consist of the following:

- o Kern River will have a single construction spread in the State of California. Spread 8 from Milepost 552.7 N at the California/Nevada border to the Kern-Mojave Interconnect, a distance of 102 miles will begin construction in early April and will continue through mid-August.

- o Mojave will have two construction spreads in California which will be in operation simultaneously. Spread 1 will be from the Arizona/California border to the Kern-Mojave Interconnect, a distance of approximately 140 miles. Spread 2 will operate from Milepost 140 to the end of the line including the East Side Lateral, a distance of approximately 222 miles.
- o Biology, cultural resources and geological including paleontological resources will be most important aspect of the California monitoring compliance program.
- o A team of a biologist and an archaeologist will be in the field with each construction spread of Mojave and/or Kern River to assure that compliance with all mitigation measures are adhered to.
- o Estimated field times for each spread is based on construction progress of approximately one per day, from the start of clearing and grading through replacement of topsoil and initiation of reclamation.
- o Archaeologists will only be necessary on a full-time basis for the clearing, grading and ditching operations along each spread. Following the ditching phase, archaeologists will spot check areas with known sites to assure that no disturbances to the cultural properties has occurred.

AIR

COMPANY: _____

SPREAD: _____

MONITOR: _____

COMMENTS

RIEFPOSTS

DATE/APPROVAL

REQUIREMENT TO COMPLY

MITIGATION MEASURE

Reviewed during normal construction inspections. Dust control shall be specified in SCMGD rules and regulations. See also OCH plan.

1. The OCH shall be watered to reduce dust.

CALENDAR PAGE 410
 MINUTE PAGE 805

AIR

COMPANY: _____

SPREAD: _____

MONITOR: _____

DATE/APPROVAL

MILEPOSTS

COMMENTS

REQUIREMENT TO COMPLY

MITIGATION MEASURE

Reviewed during normal construction inspection. See also CCM plan.

2. Construction related vehicle emissions shall be reduced by using proper equipment.

CALENDAR PAGE 411
MINUTE PAGE 806

GEOLOGY

COMPANY: _____ SPREAD: _____

MONITOR: _____

DATE/APPROVAL _____ MILEPOSTS _____ COMMENTS _____

MITIGATION MEASURE

5. Additional seismological studies shall be conducted to evaluate Quaternary faults and proper design mitigation.

REQUIREMENT TO COMPLY

Plans and supporting documentation shall be submitted and reviewed prior to commencement of work.

GEOLOGY

COMPANY: _____ SPREAD: _____

MONITOR: _____

DATE/APPROVAL

MILEPOSTS

COMMENTS

REQUIREMENT TO COMPLY

MITIGATION MEASURE

Plans and supporting documentation shall be submitted and reviewed prior to commencement of work. Reviewed during normal construction inspection.

6. Care shall be taken to avoid hydrocompaction.

GEOLOGY

COMPANY: _____ SPREAD: _____

MONITOR: _____

DATE/APPROVAL: _____ MILEPOSTS: _____ COMMENTS: _____

REQUIREMENT TO COMPLY

Plans and supporting documentation shall be submitted and reviewed prior to commencement of work. Areas identified as requiring site specific mitigation shall be inspected by a qualified geologist and/or engineer.

MITIGATION MEASURE

6. Results of geotechnical studies shall be submitted to the SLC with recommended mitigation measures.

CALENDAR PAGE	417
MINUTE PAGE	812

GEOLOGY

	COMPANY: _____ MONITOR: _____	SPREAD: _____				
			DATE/APPROVAL	MILEPOSTS	COMMENTS	
MITIGATION MEASURE	9. Accepted industry standards shall be used to mitigate potential geological hazards.					
REQUIREMENT TO COMPLY	Reviewed during normal construction inspection. See also OOH Plan.					

GEOLOGY

COMPANY: _____

SPREAD: _____

MONITOR: _____

DATE/APPROVAL

MILEPOSTS

COMMENTS

REQUIREMENT TO COMPLY

MITIGATION MEASURE

11. Special construction methods including padded ditches and heavy wall pipe shall be used on a site specific basis.

Area identified as requiring site specific mitigation shall be inspected by a qualified geologist and/or engineer. See also OSH Plan.

CALENDAR PAGE 420
 MINUTE PAGE 815

SOIL

COMPANY: _____
 MONITOR: _____
 SPREAD: _____

DATE/APPROVAL

MILEPOSTS

COMMENTS

MITIGATION MEASURE

REQUIREMENT TO COMPLY

13. Topsoil reclamations shall be utilized on cultivated lands and lands with unsuitable reclamation potential.

Revegetation and Reclamation Plans and supporting documentation shall be submitted and reviewed prior to commencement of work. Reviewed during normal construction inspection.

SOIL

COMPANY: _____ SPREAD: _____
 MONITOR: _____

DATE/APPROVAL MILEPOSTS COMMENTS

REQUIREMENT TO COMPLY

Revegetation and Reclamation plans and supporting documentation shall be submitted and reviewed prior to commencement of work. Reviewed during normal construction inspection.

MITIGATION MEASURE

14. Materials unsuitable for backfilling and excess material shall be disposed of properly.

CALENDAR PAGE 423
 MINUTE PAGE 818

SOIL

COMPANY: _____ MONITOR: _____ SPREAD: _____		DATE/APPROVAL MILEPOSTS COMMENTS	
MITIGATION MEASURE 15. Surface preparation for seeding shall include surface roughening and tilling across slopes.	REQUIREMENT TO COMPLY Revegetation and Reclamation plans and supporting documentation shall be submitted and reviewed prior to commencement of work. Reviewed during normal construction inspection.		

CALENDAR PAGE 424
 MINUTE PAGE 819

SOIL

COMPANY: _____ SPREAD: _____

MONITOR: _____

DATE/APPROVAL _____ MILEPOSTS _____ COMMENTS _____

REQUIREMENT TO COMPLY

Revegetation and Reclamation plans and supporting documentation shall be submitted and reviewed prior to commencement of work. Reviewed during normal construction inspection.

MITIGATION MEASURE

16. Erosion control features such as water bars, collection ditches, terraces, etc. shall be utilized on areas of steep slopes.

CALENDAR PAGE 425
 MINUTE PAGE 820

SOIL

COMPANY: _____ SUPERVISOR: _____
 MONITOR: _____

DATE/APPROVAL _____ MILEPOSTS _____ COMMENTS _____

REQUIREMENT TO COMPLY

Revegetation and Reclamation plans and supporting documentation shall be submitted and reviewed prior to commencement of work. Reviewed during normal construction inspection.

MITIGATION MEASURE

16. Time interval between clearing and reseed/ing shall be kept to a minimum.

CALENDAR PAGE 427
 MINUTE PAGE 822

SOIL

COMPANY: _____ SPREAD: _____ MONITOR: _____	
REQUIREMENT TO COMPLY	DATE/APPROVAL MILEPOSTS COMMENTS
MITIGATION MEASURE 22. On steeply sloping areas contours shall be utilized to reduce erosion potential.	Revegetation and Reclamation plans and supporting documentation shall be submitted and reviewed prior to commencement of work. Reviewed during normal construction inspection.
CALENDAR PAGE <u>431</u> MINUTE PAGE <u>826</u>	(Empty grid area for tracking)

SOIL

COMPANY: _____ SPREAD: _____

MONITOR: _____

DATE/APPROVAL

MILEPOSTS

COMMENTS

REQUIREMENT TO COMPLY

MITIGATION MEASURE

23. Fencing of ROM shall be done on a site specific basis, in consultation with land owner/ managing agencies.

A plan outlining the locations and types of fencing required along the ROM shall be prepared and placed on field copies of construction drawings. Reviewed during normal construction inspection.

CALENDAR PAGE	432
MINUTE PAGE	827

SOIL

COMPANY: _____ SPREAD: _____

MONITOR: _____

DATE/APPROVAL _____ MILEPOSTS _____ COMMENTS _____

MITIGATION MEASURE	REQUIREMENT TO COMPLY	DATE/APPROVAL	MILEPOSTS	COMMENTS
24. Minimize the amount of RCH disturbance during construction.	Review of construction plans to assure that steep slopes and sensitive areas shall be avoided to the maximum extent prior to commencing activities. Reviewed during normal construction inspection to assure compliance.			

CALENDAR PAGE 433
 MINUTE PAGE 828

SOIL

MITIGATION MEASURE	REQUIREMENT TO COMPLY	COMPANY: _____ SPREAD: _____ MONITOR: _____		
		DATE/APPROVAL	MILEPOSTS	COMMENTS
25. Mulching and soil stabilizing practices shall be employed on a site specific basis.	Revegetation and Reclamation plans and supporting documentation shall be submitted and reviewed prior to commencement of work. These plans shall specifically outline areas where mulches and other soil stabilizing practices will be utilized. Reviewed during normal construction inspection.			

CALENDAR PAGE 434
 MINUTE PAGE 829

SOIL

COMPANY: _____
 MONITOR: _____
 SPREAD: _____

MITIGATION MEASURE	REQUIREMENT TO COMPLY	DATE/APPROVAL	MILEPOSTS	COMMENTS
<p>26. Desert pavement restoration practices shall be employed to return the construction ROM to pre-construction conditions.</p>	<p>Revegetation and Reclamation plans and supporting documentation shall be submitted and reviewed prior to commencement of work. Areas requiring special reclamation shall be identified on construction drawings. Reviewed during normal construction inspection.</p>			

CALENDAR PAGE 435
 MINUTE PAGE 830

SOIL

COMPANY: _____ MONITOR: _____ SPREAD: _____		DATE/APPROVAL MILEPOSTS COMMENTS	
MITIGATION MEASURE 27. Reclamation and restoration plans shall be developed for federal lands.	REQUIREMENT TO COMPLY Revegetation and Reclamation plans and supporting documentation shall be submitted and reviewed prior to commencement of work. Areas requiring special reclamation shall be identified on construction drawings. Reviewed during normal construction inspection.		

CALENDAR PAGE 436
 MINUTE PAGE 831

SOIL

COMPANY: _____ SPREAD: _____ MPHITUS: _____		DATE/APPROVAL MILEPOSTS COMMENTS	
REQUIREMENT TO COMPLY	20. Reclamation and Reclamation plans and supporting documentation shall be submitted and reviewed prior to commencement of work. Areas requiring special reclamation shall be identified on construction drawings. Reviewed during normal construction inspection.	20. Reclamation and restoration plans for non-federal lands shall be developed.	(Empty grid area for data entry)

CALENDAR PAGE 437
 MINUTE PAGE 832

SOIL

COMPANY: _____ SPREAD: _____

MONITOR: _____

DATE/APPROVAL

MILEPOSTS

COMMENTS

REQUIREMENT TO COMPLY

Daily consultation with the SLC and other appropriate land managing agencies with regard to adverse weather conditions.

MITIGATION MEASURE

36. During adverse weather conditions, start and stop orders shall be issued to prevent excessive damage to the ROW.

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MINUTE PAGE	834

SOIL

COMPANY: _____ SPREAD: _____

MONITOR: _____

DATE/APPROVAL: _____ MILEPOSTS: _____ COMMENTS: _____

REQUIREMENT TO COMPLY

Revegetation and Reclamation plans as well as the BLM OCM plans and supporting documentation shall be submitted and reviewed prior to commencement of work. Areas requiring special construction methods shall be identified on construction drawings. Reviewed during normal construction inspection.

MITIGATION MEASURE

32. Identify material and stockpile locations.

CALENDAR PAGE	441
MINUTE PAGE	836

SOIL

	COMPANY: _____ SPREAD: _____ MONITOR: _____							
		DATE/APPROVAL	MILEPOSTS	COMMENTS				
MITIGATION MEASURE 33. Restore temporary workspace areas to original condition.		Requirement to Comply Revegetation and Reclamation plans as well as the ERM O&M plans and supporting documentation shall be submitted and reviewed prior to commencement of work. Areas requiring special construction methods shall be identified on construction drawings. Reviewed during normal construction inspection.						

CALENDAR PAGE	442
MINUTE PAGE	837

HYDROLOGY - SURFACE WATER

MITIGATION MEASURE	REQUIREMENT TO COMPLY	COMPANY: _____ SPREAD: _____		
		MONITOR: _____		
		DATE/APPROVAL	MILEPOSTS	COMMENTS
36. Stream crossing construction should not exceed 2 weeks.	Revegetation and Reclamation plans and supporting documentation shall be submitted and reviewed prior to commencement of work. Areas requiring special reclamation shall be identified on construction drawings. Reviewed during normal construction inspection.			

CALENDAR PAGE 445
 MINUTE PAGE 840

HYDROLOGY - SURFACE WATER

MITIGATION MEASURE	REQUIREMENT TO COMPLY	COMPANY: _____ MONITOR: _____ SPREAD: _____																																	
		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">DATE/APPROVAL</th> <th style="width: 20%;">MILEPOSTS</th> <th style="width: 65%;">COMMENTS</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>	DATE/APPROVAL	MILEPOSTS	COMMENTS																														
DATE/APPROVAL	MILEPOSTS	COMMENTS																																	
37. Streams should be crossed at periods of low flow.	Site specific plans for streambank and streambed disturbances shall be filed with the SLC prior to construction. Reviewed during normal construction inspection.																																		

CALENDAR PAGE _____ 446 MINUTE PAGE _____ 841
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HYDROLOGY - SURFACE WATER

MITIGATION MEASURE	REQUIREMENT TO COMPLY	COMPANY: _____ SPREAD: _____ MONITOR: _____		
		DATE/APPROVAL	MILEPOSTS	COMMENTS
38. Stream Crossings should be stabilized quickly.	Reviewed during post-construction inspection.			

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 MINUTE PAGE _____ 842

HYDROLOGY - SURFACE WATER

MITIGATION MEASURE	REQUIREMENT TO COMPLY	COMPANY: _____ SPREAD: _____		
		MONITOR: _____		
		DATE/APPROVAL	MILEPOSTS	COMMENTS
<p>39. If required by state or federal permit hydrostatic water should be tested and treated before release.</p>	<p>Applications for state and/or federal discharge permits must be presented to the SLC to assure compliance. Reviewed during normal construction inspection. Permit requirements must be met.</p>			

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 MINUTE PAGE 843

HYDROLOGY - SURFACE WATER

MIGRATION MEASURE	REQUIREMENT TO COMPLY	COMPANY: _____ SPREAD: _____ MONITOR: _____		
		DATE/APPROVAL	MILEPOSTS	COMMENTS
40. Hydrostatic test water shall be released properly to reduce the potential for scour.	Reviewed during normal construction inspection. Permit requirements must be met.			

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 MINUTE PAGE 844

HYDROLOGY - SURFACE WATER

COMPANY: _____ SPREAD: _____
 MONITOR: _____

DATE/APPROVAL _____ MILEPOSTS _____ COMMENTS _____

REQUIREMENT TO COMPLY

MITIGATION MEASURE

A list of all streams and other water sources slated for hydrostatic testing as well as the amounts of water required shall be filed with the SIC prior to commencement of testing. Reviewed during normal construction inspection.

42. No streams with inadequate flow rates shall be used as a source of hydrostatic test water. Adequate flow rates shall be maintained for instream uses and downstream withdrawals.

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 MINUTE PAGE 846

HYDROLOGY - SURFACE WATER

MITIGATION MEASURE	REQUIREMENT TO COMPLY	COMPANY: _____ SPREAD: _____		
		MONITOR: _____		
		DATE/APPROVAL	MILEPOSTS	COMMENTS
43. Water for hydrostatic testing shall be reused wherever possible.	Areas where hydrostatic test water shall be obtained must be identified and reasons for not reusing water given.			

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 MINUTE PAGE 847

HYDROLOGY - SURFACE WATER

MITIGATION MEASURE	REQUIREMENT TO COMPLY	COMPANY: _____ SPREAD: _____		
		MONITOR: _____		
		DATE/APPROVAL	MILEPOSTS	COMMENTS
<p>44. The pipeline shall be buried at stream crossings below the estimated scour depths associated with 100 year flood event.</p>	<p>Construction methods for all stream crossings shall be identified, giving information on the methods to be utilized, the depth of the crossing and the rationale for determining the methods to be used. These plans will be reviewed by a qualified hydrologist and/or hydrological engineer. Also obtain COE 404 permit and state stream crossing permits.</p>			

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 MINUTE PAGE 848

HYDROLOGY - SURFACE WATER

MITIGATION MEASURE	REQUIREMENT TO COMPLY	COMPANY: _____ SPREAD: _____		
		DATE/APPROVAL	MILEPOSTS	COMMENTS
45. Pipeline operators shall check the pipeline burial depth periodically at stream crossings.	The pipeline companies will file a yearly report on the inspection of pipeline burial depth on all state lands.			

CALENDAR PAGE 454
 MINUTE PAGE 849

HYDROLOGY - SURFACE WATER

COMPANY: _____

SPREAD: _____

MONITOR: _____

DATE/APPROVAL

MILEPOSTS

COMMENTS

Locations of all chemicals, fuel and maintenance activities shall be identified on construction drawings. Reviewed during normal construction inspections. See also CON Plan.

49. Chemicals, fuels, and lubricating oils shall not be stored near stream channels. Any accidental spills shall be promptly clean up.

CALENDAR PAGE	458
MINUTE PAGE	853

HYDROLOGY - SURFACE WATER

MITIGATION MEASURE	REQUIREMENT TO COMPLY	COMPANY: _____ SPREAD: _____		
		MONITOR: _____		
		DATE/APPROVAL	MILEPOSTS	COMMENTS
50. Additional erosion control measures shall be completed where necessary to prevent sedimentation into streams.	Site specific plans for streambank and streambed disturbances shall be filed with the SLC prior to construction. These plans shall provide detailed information on erosion and sedimentation measures that will be employed. Reviewed during normal construction inspection.			

CALENDAR PAGE 459
 MINUTE PAGE 854

HYDROLOGY - SURFACE WATER

MITIGATION MEASURE	REQUIREMENT TO COMPLY	COMPANY: _____ SPREAD: _____ MONITOR: _____		
		DATE/APPROVAL	MILEPOSTS	COMMENTS
51. The ROW width shall be minimized in high erosion areas.	Construction drawings shall indicate right-of-way widths for all portions of the route. These widths shall be designated by the placement of lath at the outer boundaries of the right-of-way.			

CALENDAR PAGE 460
 MINUTE PAGE 855

HYDROLOGY - GROUNDWATER

MITIGATION MEASURE	REQUIREMENT TO COMPLY	COMPANY: _____ SPREAD: _____		
		MONITOR: _____		
		DATE/APPROVAL	MILEPOSTS	COMMENTS
52. Install Ditch Plugs where necessary to minimize channeling.	Areas which may be subjected to groundwater channeling shall be identified and specific construction methods identified. Reviewed during normal construction inspections.			

CALENDAR PAGE 461
 MINUTE PAGE 856

HYDROLOGY - GROUNDWATER

MITIGATION MEASURE	REQUIREMENT TO COMPLY	COMPANY: _____ SPREAD: _____		
		MONITOR: _____		
		DATE/APPROVAL	MILEPOSTS	COMMENTS
53. Identify nearby springs which serve as sources of water supply and take precautions to avoid impacts.	Construction drawings shall identify all nearby springs and provide site specific mitigation for springs closer than 500 ft to the edge of the ROW. Reviewed during normal construction inspection.			

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HYDROLOGY - FRESHWATER BIOLOGY

MITIGATION MEASURE	REQUIREMENT TO COMPLY	COMPANY: _____ SPREAD: _____ MONITOR: _____		
		DATE/APPROVAL	MILEPOSTS	COMMENTS
54. Work draglines from stream banks.	Submit construction methods to be employed on submerged stream crossings for SLC approval. Reviewed during normal construction inspections.			

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HYDROLOGY - FRESHWATER BIOLOGY

COMPANY: _____ MONITOR: _____ DATE/APPROVAL: _____		MILEPOSTS: _____ COMMENTS: _____			
MITIGATION MEASURE	REQUIREMENT TO COMPLY				
55. Construct sedimentation basins near streams and lakes on federal land as required.	Identify the locations and types of sedimentation measures which shall be employed along the pipeline routes. Reviewed during normal construction inspections.				

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MINUTE PAGE	859

HYDROLOGY - FRESHWATER BIOLOGY

COMPANY: _____

SPREAD: _____

MONITOR: _____

DATE/APPROVAL

DATE/APPROVAL

MILEPOSTS

COMMENTS

MITIGATION MEASURE

REQUIREMENT TO COMPLY

55. Recreate vegetation on stream crossings by replacing topsoil and replanting native riparian species; fence riparian habitat if necessary.

Site specific reclamation and revegetation plans shall be submitted to the SLC for each stream crossing. Reviewed during normal construction inspections. Obtain COE 40% permit.

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MINUTE PAGE	860

BIOLOGY - VEGETATION

MITIGATION MEASURE	REQUIREMENT TO COMPLY	COMPANY: _____ SPREAD: _____		
		MONITOR: _____		
		DATE/APPROVAL	MILEPOSTS	COMMENTS
SS. In sensitive areas, the minimum RCH width possible shall be utilized to minimize damage.	Revegetation and Reclamation plans and supporting documentation shall be submitted and reviewed prior to commencement of work. Areas requiring special reclamation shall be identified on construction drawings. Reviewed during normal construction inspection.			

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BIOLOGY - VEGETATION

MITIGATION MEASURE	REQUIREMENT TO COMPLY	COMPANY: _____ SPREAD: _____ MONITOR: _____		
		DATE/APPROVAL	MILEPOSTS	COMMENTS
59. Existing vegetation shall be cleared and piled only to the extent necessary.	Revegetation and Reclamation plans and supporting documentation shall be submitted and reviewed prior to commencement of work. Areas requiring special reclamation shall be identified on construction drawings. Reviewed during normal construction inspection.			

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 MINUTE PAGE: 863

BIOLOGY - VEGETATION

MITIGATION MEASURE	REQUIREMENT TO COMPLY	COMPANY: _____ SPREAD: _____ MONITOR: _____		
		DATE/APPROVAL	MILEPOSTS	COMMENTS
64. Seed types should be from native species and adapted to the local soil and climatic conditions.	Revegetation and Reclamation plans and supporting documentation shall be submitted and reviewed prior to commencement of work. These plans shall include seed types and methods used in revegetation. Areas requiring special reclamation shall be identified on construction drawings. Reviewed during normal construction inspection.			

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BIOLOGY - VEGETATION

MITIGATION MEASURE	REQUIREMENT TO COMPLY	COMPANY: _____ SPREAD: _____		
		MONITOR: _____		
		DATE/APPROVAL	MILEPOSTS	COMMENTS
<p>66. Seeding shall be done when seasonal or weather conditions are most favorable.</p>	<p>Revegetation and Reclamation plans and supporting documentation shall be submitted and reviewed prior to commencement of work. Areas requiring special reclamation shall be identified on construction drawings. Reviewed during normal construction inspection.</p>			

CALENDAR PAGE 475
 MINUTE PAGE 870

BIOLOGY - VEGETATION

MITIGATION MEASURE	REQUIREMENT TO COMPLY	COMPANY: _____ SPREAD: _____		
		DATE/APPROVAL	MILEPOSTS	COMMENTS
<p>68. Preclear timber areas prior to dozer work. The materials shall be windrowed and placed along the edge of the ROW.</p>	<p>Submit locations where all preclearing activities will occur and outline procedures for clearing merchantable timber.</p>			

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 MINUTE PAGE 872

BIOLOGY - VEGETATION

MITIGATION MEASURE	REQUIREMENT TO COMPLY	COMPANY: _____	SPREAD: _____
		MONITOR: _____	
		DATE/APPROVAL	MILEPOSTS
		COMMENTS	
<p>69. Avoid sensitive plant species where practicable. This shall be accomplished by conducting field surveys at appropriate times of the year. Where feasible the plants shall be avoided by realignment.</p>	<p>Plans have been submitted and approved regarding avoidance of sensitive plant and sensitive plant communities. Pre-construction surveys must be conducted prior to commencement of construction activities. Pipeline company biological monitors will be present to assure that no sensitive plants species are impacted during construction. Reviewed during normal biological monitoring inspections.</p>		

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 MINUTE PAGE 873

BIOLOGY - VEGETATION

	COMPANY: _____ MONITOR: _____ DATE/APPROVAL: _____	SPREAD: _____ COMMENTS: _____							

BIOLOGY - VEGETATION

MITIGATION MEASURE	REQUIREMENT TO COMPLY	COMPANY: _____ SPREAD: _____		
		DATE/APPROVAL	MILEPOSTS	COMMENTS
<p>72. Removal of certain plant species in California may be a feasible way to reduce impacts. If plants are removed, replanting shall occur in suitable habitat outside the zone of potential disturbance.</p>	<p>Plans have been submitted and approved regarding avoidance of sensitive plant and sensitive plant communities. Pre-construction surveys must be conducted prior to commencement of construction activities. Pipeline company biological monitors will be present to assure that no sensitive plants species are impacted during construction. Reviewed during normal biological monitoring inspections.</p>			

CALENDAR PAGE 491
 MINUTE PAGE 876

BIOLOGY - VEGETATION

MITIGATION MEASURE	REQUIREMENT TO COMPLY	COMPANY: _____ SPREAD: _____		
		MONITOR: _____		
		DATE/APPROVAL	MILEPOSTS	COMMENTS
<p>73. Conduct plant surveys to locate plant species of special concern.</p>	<p>Plans have been submitted and approved regarding avoidance of sensitive plant and sensitive plant communities. Pre-construction surveys must be conducted prior to commencement of construction activities. Pipeline company biological monitors will be present to assure that no sensitive plants species are impacted during construction. Reviewed during normal biological monitoring inspections.</p>			

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 MINUTE PAGE 877

BIOLOGY - VEGETATION

MITIGATION MEASURE	REQUIREMENT TO COMPLY	COMPANY: _____ SPREAD: _____		
		MONITOR: _____		
		DATE/APPROVAL	MILEPOSTS	COMMENTS
<p>74. Transplant perennial plant species of special concern which cannot be avoided during construction.</p>	<p>Plans have been submitted and approved regarding avoidance of sensitive plant and sensitive plant communities. Pre-construction surveys must be conducted prior to commencement of construction activities. If perennial plants species of special concern are encountered which cannot be avoided by a reduction in ROW width or rerouting of the pipeline, such plants may be transplanted following guidelines established by the appropriate land managing agency. Reviewed during normal biological monitoring inspections.</p>			

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 MINUTE PAGE 878

BIOLOGY - WILDLIFE

MITIGATION MEASURE	REQUIREMENT TO COMPLY	COMPANY: _____ SPREAD: _____ MONITOR: _____		
		DATE/APPROVAL	MILEPOSTS	COMMENTS
75. Surveys for raptor nests shall be conducted prior to construction. Construction activities shall not occur during raptor nesting periods if nests occur within 0.5 mile of the ROW.	Surveys for raptor nests must be completed prior to initiation of construction. The locations of all active and inactive nests shall be clearly displayed on construction drawings. Construction activities in the vicinity of active raptor nesting sites shall not occur during specified periods. Reviewed during biological monitoring inspections.			

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 MINUTE PAGE: 879

BIOLOGY - WILDLIFE

MITIGATION MEASURE	REQUIREMENT TO COMPLY	COMPANY: _____ S/READ: _____ MONITOR: _____		
		DATE/APPROVAL	MILEPOSTS	COMMENTS
76. Avoid impacts to high interest wildlife species by use of scheduling constraints to avoid conflict with species during times of high stress.	Plans have been submitted and approved regarding avoidance of high interest wildlife species. Pre-construction surveys must be conducted prior to commencement of construction activities. Pipeline company biological monitors will be present to assure that no high interest wildlife species are impacted during construction. Reviewed during normal biological monitoring inspections.			

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BIOLOGY - WILDLIFE

MITIGATION MEASURE	REQUIREMENT TO COMPLY	COMPANY: _____ SPREAD: _____		
		MONITOR: _____		
		DATE/APPROVAL	MILEPOSTS	COMMENTS
61. Follow USFWS conservation measures in San Joaquin Valley for federally listed species.	Plans have been submitted and approved regarding avoidance of high interest wildlife species. Pre-construction surveys must be conducted prior to commencement of construction activities. Pipeline company biological monitors will be present to assure that no high interest wildlife species are impacted during construction. Reviewed during normal biological monitoring inspections.			

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 MINUTE PAGE 885

BIOLOGY - WILDLIFE

COMPANY: _____ SPREAD: _____

MONITOR: _____

DATE/APPROVAL _____ MILEPOSTS _____ COMMENTS _____

MITIGATION MEASURE

82. Conduct detailed surveys to locate species of special concern and utilize the results to alleviate impacts.

REQUIREMENT TO COMPLY

Plans have been submitted and approved regarding avoidance of high interest wildlife species. Pre-construction surveys must be conducted prior to commencement of construction activities. Pipeline company biological monitors will be present to assure that no high interest wildlife species are impacted during construction. Reviewed during normal biological monitoring inspections.

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BIOLOGY - WILDLIFE

MITIGATION MEASURE		REQUIREMENT TO COMPLY	DATE/APPROVAL	MILEPOSTS	COMMENTS
<p>85. Desert Tortoise mitigation measures shall be adopted. The ROW shall be surveyed to determine the presence of species and the potential disturbance to species.</p>		<p>Detailed studies have been conducted to determine the habitat and/or potential habitat for wildlife species of special concern. Mitigation measures have been developed outlined methods of avoidance, methods for removal and requirements for qualified biological monitors. SLC biological monitors will oversee the Pipeline company monitors.</p>			

COMPANY: _____ SPREAD: _____
 MONITOR: _____

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BIOLOGY - WILDLIFE

COMPANY: _____ SPREAD: _____

MONITOR: _____

DATE/APPROVAL

MILEPOSTS

COMMENTS

REQUIREMENT TO COMPLY

MITIGATION MEASURE

Information on the length and duration of open trench has been presented in the mitigation-compensation program. Reviewed during construction inspections.

Length of open trench
Duration of opening in areas
where sensitive species are
present.

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BIOLOGY - WILDLIFE

COMPANY: _____ SPREAD: _____

MONITOR: _____

DATE/APPROVAL	MILEPOSTS	COMMENTS

REQUIREMENT TO COMPLY

Locations of barricades, fences and/or signs shall be identified prior to operation of the pipeline.

MITIGATION MEASURE

EG. Restrict RDN access where feasible by the construction of barricades, fences, etc.

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BIOLOGY - WILDLIFE

MITIGATION MEASURE	REQUIREMENT TO COMPLY	COMPANY: _____ SPREAD: _____		
		MONITOR: _____		
		DATE/APPROVAL	MILEPOSTS	COMMENTS
B9. Conduct field surveys for species of special concern.	Detailed studies have been conducted to determine the habitat and/or potential habitat for wildlife species of special concern. Mitigation measures have been developed outlining methods of avoidance, methods for removal and requirements for qualified biological monitors. SLC biological monitors will oversee the Pipeline company monitors.			

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BIOLOGY - WILDLIFE

	COMPANY: _____ MONITOR: _____	SPREAD: _____				
			DATE/APPROVAL	MILEPOSTS	COMMENTS	
MITIGATION MEASURE 90. Revegetate ROW in habitat of species of special concern to predisturbance levels.	Revegetation and Reclamation plans and supporting documentation shall be submitted and reviewed prior to commencement of work. Areas requiring special reclamation shall be identified on construction drawings. Reviewed during normal construction inspection.					

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MINUTE PAGE	894

BIOLOGY - GRAZING

MITIGATION MEASURE	REQUIREMENT TO COMPLY	COMPANY: _____ SPREAD: _____ MONITOR: _____		
		DATE/APPROVAL	MILEPOSTS	COMMENTS
93. Replace all waterlines or drinkers damaged by pipeline construction.	Reviewed during normal construction inspections and post-construction inspections. Also see CCM Plan and Discussions with Appropriate Agencies and Landowners.			

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MINUTE PAGE 897

SOCIOECONOMICS

	COMPANY: _____ MONITOR: _____ SPREAD: _____								

SOCIOECONOMICS

MITIGATION MEASURE	REQUIREMENT TO COMPLY	COMPANY: _____ SPREAD: _____		
		MONITOR: _____		
		DATE/APPROVAL	MILEPOSTS	COMMENTS
<p>97. Comply with all pesticide usage and application regulations.</p>	<p>A plan for the use of pesticides shall be filed with the SLC and all other appropriate agencies prior to the initiation of construction. If emergency use of pesticides is required at any time during either the construction or operation of the pipeline(s) on State of California lands, a plan outlining the need and specific uses of the pesticides must be filed with the SLC and written permission given by the SLC in response. Obtain Use Permits if necessary.</p>			

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SOCIOECONOMICS

		COMPANY:	SPREAD:				
		MONITOR:		DATE/APPROVAL	MILEPOSTS	COMMENTS	
<p>MITIGATION MEASURE</p> <p>100. Forest Service permittees shall be notified of construction activities that may affect their business or operations.</p>	<p>REQUIREMENT TO COMPLY</p> <p>No longer necessary in California.</p>						

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 MINUTE PAGE 904

LAND USE

<p>COMPANY: _____ MONITOR: _____ SPREAD: _____</p>	<p>DATE/APPROVAL</p> <p>MILEPOSTS</p> <p>COMMENTS</p>
<p>REQUIREMENT TO COMPLY</p>	<p>No longer necessary in California.</p>
<p>MITIGATION MEASURE</p>	<p>102. Get Forest Service approval for all pertinent plans.</p>

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 MINUTE PAGE 906

LAND USE

COMPANY: _____ SPREAD: _____

MONITOR: _____

DATE/APPROVAL _____ MILEPOSTS _____ COMMENTS _____

REQUIREMENT TO COMPLY

Reviewed during normal construction and post-construction inspections.

MITIGATION MEASURE

103. Protect and/or repair all damaged government property.

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 MINUTE PAGE 907

LAND USE

COMPANY: _____

SPREAD: _____

MONITOR: _____

DATE/APPROVAL

MILEPOSTS

COMMENTS

REQUIREMENT TO COMPLY

MITIGATION MEASURE

No longer necessary in California.

104. Obtain Forest Service approval for all construction related facilities.

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 MINUTE PAGE 908

LAND USE

MITIGATION MEASURE	REQUIREMENT TO COMPLY	COMPANY: _____ SPREAD: _____ MONITOR: _____		
		DATE/APPROVAL	MILEPOSTS	COMMENTS
105. Prepare fire control plan as part of COM plan for the Forest services.	No longer necessary in California on Forest Service lands. See BLM COM Plan.			

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 MINUTE PAGE 909

CULTURAL RESOURCES

MITIGATION MEASURE	REQUIREMENT TO COMPLY	COMPANY: _____ SPREAD: _____		
		MONITOR: _____		
		DATE/APPROVAL	MILEPOSTS	COMMENTS
<p>106. Develop Cultural Resource Management Plan and conduct survey of route; identify all cultural resources and make eligibility determination under Section 106 of NHPA.</p>	<p>Submit Plan to FERC, SLR, BLM, FS, and appropriate SHPO. All cultural resources locations shall be plotted on construction drawings. Sites which are to be avoided shall be marked in a manner so that construction disturbance does not occur. Sites requiring data recovery shall be excavated prior to construction. Any cultural resource which is impacted by construction, including sites which are determined ineligible to the National Register of Historic Places shall be monitored by a qualified archaeologist during the trenching operations. If significant cultural deposits are encountered during trenching, work shall cease until a determination of the significance of the deposits can be made.</p>			

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CULTURAL RESOURCES

MITIGATION MEASURE	REQUIREMENT TO COMPLY	COMPANY: _____ SPREAD: _____		
		MONITOR: _____		
		DATE/APPROVAL	MILEPOSTS	COMMENTS
107. Tribal plans for cultural resource preservation shall be followed on tribal lands.	Consult with individual tribes and BIA. Not necessary in California.			

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CULTURAL RESOURCES

MITIGATION MEASURE	REQUIREMENT TO COMPLY	COMPANY: _____ SPREAD: _____		
		DATE/APPROVAL	MILEPOSTS	COMMENTS
108. Develop Paleontological Resource Management Plan.	Mitigation measures outlined in the FEIR/S shall be implemented. Review of the paleontological plan shall be completed by company provided paleontologists in areas deemed to contain high significance deposits. SLC monitors will be present to assure compliance with the mitigation measures.			

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 MINUTE PAGE 912

MOJAVE ONLY

COMPANY: _____

SPREAD: _____

MONITOR: _____

DATE/APPROVAL

HILEPOSTS

COMMENTS

REQUIREMENT TO COMPLY

MITIGATION MEASURE

111. Investigate cinder cones near
Abboy and Hector, California.

Plans and supporting documentation
shall be submitted and reviewed
prior to commencement of work.

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MINUTE PAGE 913

MOJAVE ONLY

MITIGATION MEASURE	REQUIREMENT TO COMPLY	COMPANY: _____ SPREAD: _____ MONITOR: _____		
		DATE/APPROVAL	MILEPOSTS	COMMENTS
113. Realign route to maximize use of CDCA corridors. Use Alternative B and Kern River Route around Edwards AFB.	Modifications to the Mojave application have been made incorporating these changes.			

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 MINUTE PAGE 915

MOJAVE ONLY

COMPANY: _____

MONITOR: _____

SPREAD: _____

DATE/APPROVAL: _____

MILEPOSTS

COMMENTS

REQUIREMENT TO COMPLY

MITIGATION MEASURE

114. Realign route between Mojave and floor of San Joaquin Valley to avoid land use problems.

Modifications to the Mojave application have been made incorporating these changes.

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 MINUTE PAGE 916

MOJAVE ONLY

COMPANY: _____ MONITOR: _____ SPREAD: _____		COMMENTS	
REQUIREMENT TO COMPLY		MILEPOSTS	
DATE/APPROVAL		COMMENTS	
MITIGATION MEASURE	Modifications to the Mojave application have been made incorporating these changes.		
115. Cross Kern River in a place to avoid major impact to Kern River County Park.			

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MOJAVE ONLY

MITIGATION MEASURE	REQUIREMENT TO COMPLY	COMPANY: _____ SPREAD: _____		
		MONITOR: _____		
		DATE/APPROVAL	MILEPOSTS	COMMENTS
117. Avoid Indian John Springs and Stallion Springs by rerouting.	Modifications to the Mojave application have been made incorporating these changes.			

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 MINUTE PAGE 919

MOJAVE ONLY

COMPANY: _____ SPREAD: _____ MONITOR: _____		DATE/APPROVAL MILEPOSTS COMMENTS	
MITIGATION MEASURE 11B. Reroute through Esarsfield to reduce impact to residential and recreational areas.	REQUIREMENT TO COMPLY Modifications to the Mojave application have been made incorporating these changes.		

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 MINUTE PAGE 920

KERN RIVER ONLY

MITIGATION MEASURE	REQUIREMENT TO COMPLY	COMPANY: _____ SPREAD: _____		
		MONITOR: _____		
		DATE/APPROVAL	MILEPOSTS	COMMENTS
<p>143. Place pipeline on stable ridgelines to reduce avalanche hazards and use special construction methods.</p>	<p>Plans and supporting documentation shall be submitted and reviewed prior to commencement of work. Areas identified as requiring site specific mitigation shall be inspected by a qualified geologist and/or engineer. Not necessary in California.</p>			

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 MINUTE PAGE 921

KERN RIVER ONLY

MITIGATION MEASURE	REQUIREMENT TO COMPLY	COMPANY: _____ SPREAD: _____ MONITOR: _____		
		DATE/APPROVAL	MILEPOSTS	COMMENTS
145. Investigate cinder cones in Sevier Desert and Lina Dome.	Plans and supporting documentation shall be submitted and reviewed prior to commencement of work. Areas identified as requiring site specific mitigation shall be inspected by a qualified geologist and/or engineer. Not necessary in California.			

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 MINUTE PAGE 923

KERN RIVER ONLY

MITIGATION MEASURE	REQUIREMENT TO COMPLY	COMPANY: _____	SPREAD: _____
		MONITOR: _____	
		DATE/APPROVAL	MILEPOSTS
		COMMENTS	
145. Directionally drilled under Las Vegas Wash.	No longer necessary. Kern River has modified its application to utilize the North Las Vegas Variation.		

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KERN RIVER ONLY

		COMPANY: _____	SPREAD: _____	
		MONITOR: _____		
		DATE/APPROVAL	PILEPOSTS	COMMENTS
<p>MITIGATION MEASURE</p> <p>147. Construction in Bear River shall not occur in April, May, or June.</p>	<p>REQUIREMENT TO COMPLY</p> <p>Construction Plans should reflect schedule in this area. Not necessary in California.</p>			

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 MINUTE PAGE 925

KERN RIVER ONLY

COMPANY: _____ MONITOR: _____ SPREAD: _____		DATE/APPROVAL MILEPOSTS COMMENTS	
MITIGATION MEASURE 149. Avoid bighorn sheep migration corridors as specified by appropriate agencies.	REQUIREMENT TO COMPLY Consult with appropriate agency and determine construction windows.		

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 MINUTE PAGE 927

KERN RIVER ONLY

MITIGATION MEASURE	REQUIREMENT TO COMPLY	COMPANY: _____ SPREAD: _____		
		MONITOR: _____		
		DATE/APPROVAL	MILEPOSTS	COMMENTS
130. Conduct prairie dog surveys to find if BFF present.	Develop plan and submit result of surveys to appropriate agencies. Not necessary in California.			

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928

KERN RIVER ONLY

MITIGATION MEASURE	REQUIREMENT TO COMPLY	COMPANY: _____ SPREAD: _____		
		MONITOR: _____		
		DATE/APPROVAL	MILEPOSTS	COMMENTS
153. Aircraft monitoring shall be coordinated with nearby military installations, e.g., Edwards AFB and Ft. Irvin.	Contact Ft. Irvin and other bases as required. (Edwards AFB will no longer be crossed by Kern River.			

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KERN RIVER ONLY

MITIGATION MEASURE	REQUIREMENT TO COMPLY	COMPANY: _____ SPREAD: _____		
		MONITOR: _____		
		DATE/APPROVAL	MILEPOSTS	COMMENTS
154. Select route through Bakersfield carefully to avoid impacts to residences.	No longer necessary. Kern River will not build in Bakersfield area. See Mojave Mitigation Measure 11B.			

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932

VISUAL RESOURCES

COMPANY: _____
 SPREAD: _____

MONITOR: _____

DATE/APPROVAL

MILEPOSTS

COMMENTS

REQUIREMENT TO COMPLY

MITIGATION MEASURE

110. Identify segments of line where vegetative clearing widths would be modified.

CM Plan.

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BIOLOGY

MITIGATION MEASURE	REQUIREMENT TO COMPLY	DATE/APPROVAL	MILEPOSTS
<p>3.1.1.1 Construction Drawings and Specifications Mitigation measures presented below shall be specified in all drawings and specifications that are a part of the contract documents for pipelines and other related facilities constructed within the state of California. The requirements that can be depicted in a linear reference, i.e., RDN width, grading width allowed, etc., shall be shown on aerial photo or topographic alignment sheets. Other requirements shall become part of the construction specifications in narrative or line list format.</p>	<p>Plans have been submitted and approved regarding avoidance of sensitive plant and sensitive plant communities. Pre-construction surveys must be conducted prior to commencement of construction activities. Pipeline company biological monitors will be present to assure that no sensitive plants species are impacted during construction. Reviewed during normal biological monitoring inspections.</p>		

COMPANY: _____ SPREAD: _____
 MONITOR: _____

DATE/APPROVAL _____ MILEPOSTS _____ COMMENTS _____

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BIOLOGY

COMPANY: _____
 MONITOR: _____
 SPREAD: _____

DATE/APPROVAL

MILEPOSTS

COMMENTS

REQUIREMENT TO COMPLY

MITIGATION MEASURE

Reviewed during normal biological monitoring inspections.

3.1.1.2 Construction Scheduling
 Construction timing windows have been proposed for desert tortoise, blunt-nosed leopard lizard, and Tehachapi slender salamander to reduce incidental take within sensitive species habitat of these species.

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MINUTE PAGE	936

BIOLOGY

COMPANY: _____ SPREAD: _____
 MONITOR: _____

DATE/APPROVAL _____ MILEPOSTS _____ COMMENTS _____

REQUIREMENT TO COMPLY

Reviewed during normal biological monitoring inspections. Must be submitted prior to initiation of construction.

MITIGATION MEASURE

3.1.1.3 Preconstruction Surveys
 Preconstruction surveys for the
 var^r are endangered, threatened,
 and sensitive species shall be
 conducted with aerial photographs
 or scaled videotapes of the
 construction corridors taken
 within the previous 12 months and
 be completed to aid in determining
 the preconstruction conditions. A
 program of ~~air-ground~~ scaled
 photography taken at mile
 intervals along the construction
 EOM shall also be obtained.

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MINUTE PAGE	937

BIOLOGY

COMPANY: _____ SPREAD: _____
 MONITOR: _____

DATE/APPROVAL _____ MILEPOSTS _____ COMMENTS _____

MITIGATION MEASURE

REQUIREMENT TO COMPLY

3.1.2.2 Clearing, Grading, and Dust Control
 Trees and large shrubs shall be avoided or removed prior to clearing. The upper two to six inches of topsoil from the construction ROM requiring grading shall be removed and windrowed with the vegetation and kept separate from the remaining spoils.
 Grading shall be limited to that area necessary to permit movement and operation of equipment and shall not be permitted in areas where sensitive plant species occur, until after sensitive plants are removed and transplanted or soil seed banks are removed.
 Grading shall not occur in riparian areas/stream crossings within 24 hours of a predicted 50 percent chance of precipitation. Hay bales shall be placed at all flowing stream crossings at the end of each work day during the rainy season (December 1 to March 15), and at the end of each work day at other seasons when rain is forecast. Stockpiled topsoil or spoil shall not be exposed near a stream channel or riparian area for more than 30 days.

Reviewed during normal biological monitoring inspections.

BIOLOGY

COMPANY: _____ SPREAD: _____
 MONITOR: _____

DATE/APPROVAL _____ MILEPOSTS _____ COMMENTS _____

REQUIREMENT TO COMPLY

Review during normal biological monitoring inspections.

MITIGATION MEASURE

3.1.2.3 Topsoil Salvage and Handling
 Surface material ("topsoil") must be salvaged from trenching and any grading activities for preservation of topsoil and fertility in agricultural areas and existing seedbanks in natural vegetation.

Topsoil shall also be salvaged at stream crossings and riparian areas. Topsoil salvage may be done using a double windrow method or other approved method to separate topsoil (the top 2 to 6 inches) from the remaining spoil material.

Special care shall be given in areas (e.g., topsoil removal by hand or small mechanical equipment), where sensitive animal species have been found or may occur to stockpile topsoil from this specific habitat and replace this topsoil in the same area.

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BIOLOGY

MITIGATION MEASURE	REQUIREMENT TO COMPLY	DATE/APPROVAL	MILEPOSTS	COMMENTS
<p>3.1.2.4 Trenching, Blasting, and Inspections The trench must be backfilled as quickly as possible following lowering of the pipe. The maximum length of open trench at any one time shall not exceed 10 miles. For trenches not filled at the end of the day, escape ramps for wildlife shall be installed at distances no greater than 0.25 mile apart. Open, active work areas and trenches within listed species habitat shall be inspected by environmental monitors every morning (no later than one hour after sunrise) and immediately prior to initiation of daily construction activities, every evening (no more than 1/2 hour after sunset), and periodically (every 2-4 hours) throughout the day. This shall be accomplished seven days a week when open trenches are present. Company environmental monitors shall remove any trapped state and/or federally listed animals from the areas. Listed species of burrowing animals shall be removed from the blast area and up to 50 ft from the ROM in areas to be blasted. Burrows of listed species 50-200 ft from the blasting zone shall be flagged by an environmental monitor prior to blasting and shall be surveyed afterward. Burrows of listed species which collapse as a result of blasting shall be hand-dug to remove any trapped animals.</p>	<p>Reviewed during normal biological monitoring inspections.</p>			

COMPANY: _____ SPREAD: _____
 MONITOR: _____

BIOLOGY

COMPANY: _____ SPREAD: _____

MONITOR: _____

DATE/APPROVAL

MILEPOSTS

COMMENTS

REQUIREMENT TO COMPLY

MITIGATION MEASURE

Revised during normal biological monitoring inspections.

3.1.2.5 Backfilling Backfilling of the trench shall be done with an auger backfiller or other suitable equipment where root systems have been preserved and/or where topsoil has been segregated. Where blading has been done, backfilling may be done with a dozer.

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BIOLOGY

COMPANY: _____ SPREAD: _____

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REQUIREMENT TO COMPLY

Reviewed during normal biological monitoring inspections.

MITIGATION MEASURE

3.1.2.6 Construction Material and Equipment Storage All open construction pipes, culverts, or smaller structures stored in stockpile areas or on the RDM for overnight periods shall be inspected for small mammals or reptiles (e.g., San Joaquin kit fox, desert tortoise) before the pipe is buried, capped, or otherwise used or moved in any way. All 16-place pipelines segments shall be capped daily until backfilled to prevent entry of animals. Checks around vehicles and other equipment before moving or operating equipment for other sensitive wildlife species shall also be completed prior to moving. If a state and/or federally listed species is identified during these inspections, only an environmental monitor may be utilized to remove the animal.

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MITIGATION MEASURE

Reviewed during normal biological monitoring inspections.

3.1.2.7 Feces, Camping, Firearms, and Use of Area (e) camping shall be permitted on the construction ROW. Only authorized camping areas may be utilized.

To prevent harassment, mortality, or destruction of dens/burrows of wildlife species, pets shall not be allowed on the ROW, staging areas, access roads or any other sites required for construction activities. Firearms shall also be prohibited in the same areas. Unauthorized workers shall not be permitted at construction areas during non-scheduled hours.

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MITIGATION MEASURE

Reviewed during normal biological monitoring inspections.

3.1.2.8 Trash Control To avoid attracting species of concern and potential predators, all food-related trash and litter (wrappers, cans, bottles, food scraps) shall be placed in closed containers and disposed of daily. The working ROM of each spread shall be policed daily to remove any trash or litter which may not have been disposed of properly.

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MITIGATION MEASURE

Reviewed during normal biological contouring inspections.

3.1.2.9 Handling and Disposal of Hazardous Materials Refueling and storage of hazardous materials shall occur in previously disturbed areas and not be allowed within 200 yards of a flagged sensitive plant species or sensitive wildlife habitat feature, nor within 200 yards of a perennial stream or riparian habitat. Areas where refueling or storage of hazardous materials is prohibited shall be marked by the environmental monitors. The storage of these materials near streams shall be consistent with CDFG code 5650.

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Reviewed during normal biological monitoring inspections.

MITIGATION MEASURE

3.1.2.10 Fire Control Procedures
No trash-burning fires shall be permitted in the construction area. Vehicles used in the RCA with catalytic converters shall be equipped with shielding or other acceptable fire prevention features. Construction spreads must be equipped with fire extinguishers, with workers trained in their use. Fire resistant mats and/or wind screens shall be placed on the ground below welding and grinding operations whenever dry vegetation is present.

Supervisors shall have the names of local fire fighting agencies. A detailed fire plan shall be prepared as a standard part of a BLM Construction, Operation and Maintenance Plan.

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MITIGATION MEASURE

Reviewed during normal biological monitoring inspections.

3.1.2.11 Collection and Harassment of Species: No intentional killing or collection of either plants or wildlife shall be permitted. If wildlife species, e.g., rattlesnakes enter the construction corridor, they shall be removed by a qualified environmental monitor. No intentional damage to trees or other vegetation shall be permitted outside of the construction RDI; this shall include the collection of plants including cacti without prior authorization.

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<p style="text-align: center;">REQUIREMENT TO COMPLY</p>	<p>Reviewed during normal biological monitoring inspections.</p>			
<p>MITIGATION MEASURE</p> <p>3.1.3.1 Cleanup After construction is completed, a final RDA cleanup shall include removal of all stakes, lathes, flagging, barrels, cans, drums, accidental spills and any other refuse generated by construction. No shrub material or other plant cover shall be disturbed during this process.</p>				

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<p>3.1.3.3 Post-Construction Access Control The objective of post-construction access control is to implement procedures to limit access on the permanent ROWs in order to limit additional intrusion into wildlife habitat and speed recovery and revegetation of the ROW.</p> <p>Required inspection of the ROW shall be conducted by air to detect encroachment. Travel by maintenance crews shall be restricted to existing access roads. Maintenance vehicles must avoid sensitive areas designated in the post-construction monitoring program.</p> <p>The permanent ROW may be used to access the pipeline in emergency situations as defined under conditions stipulated by the Agencies. Damage to vegetation on the ROW shall be fixed and the ROW restored as soon as possible following the emergency. The appropriate agencies shall be notified.</p> <p>Signs shall be posted indicating the ROW is closed to vehicles.</p>	<p>Reviewed during normal biological monitoring inspections. Should be checked in post-construction inspections.</p>			

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REQUIREMENT TO COMPLY

Reports shall be reviewed by SLC and other identified agencies.

MITIGATION MEASURE

3.1.3.4 Post-Construction Environmental Monitoring and Reporting Post-construction monitoring shall meet the basic objectives: 1) to assess actual impacts that occur during construction, and 2) to monitor revegetation and other mitigations. Post-construction inspection of the project area shall be conducted by the environmental monitoring team after completion of clean up, surface restoration, and revegetation.

A final construction monitoring report shall be prepared. Post-construction monitoring shall be undertaken at the end of the fifth year of operation.

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MITIGATION MEASURE	REQUIREMENT TO COMPLY	DATE/APPROVAL	MILEPOSTS
<p>3.1.4.1 Equipment Operation, Inspection and Maintenance. Since most operation of facilities is by remote control, site visits are mainly related to inspection and maintenance. Access to sites shall be limited to access roads, or newly constructed roads approved as part of the project. All personnel shall attend regular meetings to be reminded about safety and environmental concerns.</p>	<p>Plans shall be submitted to SLC and other identified agencies.</p>		

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<p>3.1.4.3 Vegetation Control If mechanical clearing of the ROM is required during operational phases, the following mitigation measures shall be used:</p> <p>Operators and workers shall receive environmental training.</p> <p>Activities shall be restricted to the immediate area to be cleared.</p> <p>Existing access roads to the ROM shall be used.</p> <p>A pre-clearing inspection of the area shall be conducted by a qualified biologist to identify/relocate and avoid any listed species of flora or fauna.</p> <p>Pets and firearms on the ROM shall be prohibited.</p> <p>All trash and litter shall be kept in containers and removed from the ROM daily.</p> <p>Repairing of equipment shall occur outside approval areas away from sensitive plants, sensitive wildlife habitat and perennial or seasonal streams.</p> <p>Fire suppressants shall be carried on all mobile equipment and safeguard catalytic converters.</p>	<p>Plans shall be submitted to SLC and other identified agencies.</p>			

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MITIGATION MEASURE		REQUIREMENT TO COMPLY	DATE/APPROVAL	MILEPOSTS	COMMENTS
<p>3.1.4.5 Contingency Plans Each pipeline company shall prepare appropriate contingency plans and procedures prior to initiation of operations and present them to the Agencies for review. These plans shall outline procedures for contacting the Agencies under a variety of situations which may occur. The plans shall provide procedures for notification concerning emergencies related to pipeline leaks or ruptures and what will constitute an emergency; plans for protecting the biological resources during emergency operations; procedures for accomplishing routine maintenance; and plans for consultation with the Agencies for unforeseen circumstances.</p>		<p>Plans shall be submitted to SLC and other identified agencies.</p>			

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HITIGATION MEASURE	REQUIREMENT TO COMPLY				
<p>3.2.2.3 Sensitive Plants: Mojave Desert Several candidate or otherwise sensitive plants have the potential to occur along the corridor as described in the Draft EIR Amendment. These include <i>Gymnocarpus deserticola</i>, <i>Panicum sphaerogynus</i>, <i>Linanthus aridicola</i>, <i>Eriophyllum schweense</i>, and <i>Hesperaloe parviflora</i> for the Mojave Pipeline and <i>Arctostaphylos uva-ursi</i>, <i>Castilleja exoniiflora</i>, <i>Coryphantha vivipara</i> var. <i>rosea</i>, <i>Linanthus aridicola</i>, <i>Sphaeralcea ruficeps</i> spp. <i>aridicola</i>, and <i>Stipa arida</i> for Kern River. Only <i>Sphaeralcea</i> and <i>Stipa</i> were found during the surveys along the Kern River route. Additionally, other sensitive annual species may be located during new springtime surveys if substantial rain occurs in the 1990-1991 winter season. The following measures shall be taken:</p> <p>Preconstruction surveys shall take place during the months of March to June to identify and flag all sensitive plant species at known occurrences and in potential habitat on the ROW and access points. These plants shall be avoided wherever feasible.</p> <p>Cactus, Joshua Trees, and other perennial species that would be lost during construction shall, where feasible, be transplanted to adjacent locations or replaced on the ROW after completion of construction. The guidelines for the feasibility of any transportation of these plants and the location where they would be replanted shall be determined in consultation with the Agencies at least 30 days prior to the start of construction.</p> <p>The topsoil shall be 1-2 inches of top soil in all known habitat for sensitive annual species shall be removed by hand or small excavator. No reusing in the immediate vicinity shall be allowed.</p>	<p>Reviewed during normal biological monitoring inspections and will require botanical specialist in sensitive areas.</p>				

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<p>3.2.4.5 Sensitive Plant Species: San Joaquin Valley Preconstruction surveys shall be conducted at known occurrences and in potential habitat between April and the end of June to identify populations of candidate or state and/or federally listed plants. Populations shall be avoided through minor changes in pipeline alignments or restrictions in the width of the construction ROW.</p> <p>Potential habitat of plant species of concern include <i>Kid furcata</i>, <i>Atriplex vaillicola</i>, <i>Caulanthus californicus</i>, <i>Cirsium crassicaule</i>, <i>Eremalche kernensis</i>, <i>Eriastrum hooveri</i>, <i>Eriogonum gossypinum</i>, and <i>Opuntia treleasei</i>. Only <i>Cirsium crassicaule</i> and <i>Opuntia treleasei</i> were found during the field investigations.</p> <p>Populations of federally threatened and endangered species include <i>Eremalche kernensis</i>, <i>Eriastrum hooveri</i>, <i>Eriogonum gossypinum</i>, <i>Caulanthus californicus</i>, and <i>Opuntia treleasei</i>. If populations of these species are identified during the preconstruction surveys, the populations shall be avoided through minor changes in the pipeline alignment, restrictions in the width of the construction ROW or both. If avoidance is not possible, cactus and other plants capable of transplantation should be transplanted to other locations or back on the site after completion of construction.</p> <p>The upper two inches of top soil shall be excavated by hand or small equipment and replaced after completion of construction. No grading shall be permitted in the vicinity of these areas.</p>	<p>Reviewed during normal biological monitoring inspections and will require botanical specialist in sensitive areas.</p>			

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MITIGATION MEASURE

Qualifications of personnel must be submitted to SLC.

Personal Qualifications: All personnel handling desert tortoises shall approved by the U.S. Fish and Wildlife Service and the California Department of Fish and Game. Each monitor shall be permitted by the USFWS and the CDFG to handle's tortoises. Additionally, each monitor shall undergo an agency mandated training program in the handling of desert tortoises. A handbook shall also be developed and approved by the Agencies and distributed to each monitor detailing survey, monitoring, and handling requirements.

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MITIGATION MEASURE	REQUIREMENT TO COMPLY	DATE/APPROVAL	MILEPOSTS	COMMENTS
<p>Removal of Tortoises During Active Periods Each desert tortoise that is encountered during clearing and construction activities shall be given an identifying number; have vital information recorded; and be permanently and uniquely marked. A 35mm slide shall be taken from directly above the animal to show a full view of the carapace after processing. All information shall be submitted to responsible agencies upon completion of clearing and again in the post-construction report.</p> <p>Researchers shall wear disposable gloves when handling each tortoise. Those gloves shall be disposed of after each tortoise is handled. Any desert tortoises that voids its cloaca shall be hydrated by an Agency approved method.</p> <p>During pre-work clearing activities, desert tortoises encountered shall be processed, and moved 150 ft off the ROM and placed under a shrub in the shade. Desert tortoises that are encountered when the temperature exceeds 90°F shall be held overnight and released the following morning shortly after sunrise following established procedures. Desert tortoises encountered during the two hours before sunset shall be held overnight in a secure location and kept by a designated monitor until the desert tortoise is released the following morning.</p> <p>Desert tortoises are encountered on the ROM during construction, each desert tortoise shall be processed, and moved 150 ft off the ROM in the direction of its travel and placed under a shrub in the shade. If appropriate shade cannot be found, the desert tortoise shall be held overnight and released as detailed above. Any desert tortoise encountered two hours before sunset shall be kept and released as detailed above. Desert tortoises that are found on the construction ROM more than once (3) times shall be penned in a temporary 10 ft enclosure around a burrow next to the ROM. Alternatively, the ROM may be fenced temporarily with tortoise proof fence.</p>	<p>Reviewed during normal biological monitoring inspections.</p>			

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MITIGATION MEASURE

Reviewed during normal biological monitoring inspections.

Procedures if Construction in High Quality Habitat Exceeds Beyond June 15. If construction will occur within high quality habitats post June 15, presurveys, hand excavation of burrows, and movement of tortoises prior to June 15 shall take place. These areas shall be monitored closely to assure that tortoises do not try to reestablish burrows prior to construction.

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MITIGATION MEASURE	REQUIREMENT TO COMPLY	DATE/APPROVAL	MILEPOSTS	COMMENTS
<p><u>Monitoring and Tortoise Protection During Construction Activities</u> requiring a biological monitor shall include, but are not limited to:</p> <p>surveying, pioneer clearing, final clearing and grading, ditching, pipe stringing, pipe banding, welding, taping, backfilling of ditch, hydrostatic testing, final cleanup, and revegetation and rehabilitation.</p> <p>If desert tortoises are encountered which require handling and/or removal from the construction RSM, only monitors which have been approved to handle tortoises shall be utilized.</p>	<p>Reviewed during normal biological monitoring inspections.</p>			

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Reviewed during normal biological monitoring inspections.

MITIGATION MEASURE

3.2.2.2 Mojave Ground Squirrel: Mojave ground squirrel habitat occurs along the Mojave pipeline alignment between MP 162 and 214. The following procedures shall be implemented within these areas:

The alignment shall be surveyed where feasible between April 1 and May 15 to identify areas containing Mojave ground squirrels. Where possible the burrow areas shall be avoided by other changes in alignment.

Burrows within Mojave ground squirrel areas within the alignment shall be hand dug prior to construction to reduce mortality. Any animal found in the state of torpor shall be placed under the care of an approved veterinarian and released under the direction of CDFG biologists.

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Reviewed during normal biological monitoring inspections.	

MITIGATION MEASURE	
<p>3.2.3.1 Tehachapi Slender Salamander Although no Tehachapi slender salamanders were located during the preliminary field surveys, potential habitat for this species exists near 1.5 miles of the proposed Mojave pipeline route. Therefore, the following preventative mitigation measures shall be implemented to avoid possible impacts.</p>	

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<p style="text-align: center;">MITIGATION MEASURE</p> <p>3.2.4.1 San Jacinto Kit Fox Preconstruction surveys shall be conducted within 14 days to 45 days prior to construction to identify all known or potential kit fox dens within the RDM or 150 ft on either side of the RDM. A 50 ft exclusion zone shall be placed around all known or probable kit fox dens and a 150 ft exclusion zone shall be placed around natal dens. This shall be accomplished by modification of the pipeline alignment around known kit fox dens; localized reductions in the width of the construction RDM; and a minimization of construction impacts to the least possible area within the corridor. In addition, preconstruction surveys shall include the area to be affected by water discharge during hydrostatic testing.</p> <p>If a kit fox den cannot be avoided, the USFWS and the CDFG shall be notified and the following procedures shall be implemented.</p> <p>Prior to surface disturbing activities, subject dens shall be inspected by a qualified wildlife biologist for telestric or surface evidence of kit fox use. If the subject den is determined to be empty, the den shall be completely excavated by or under the direct supervision of a qualified biologist and then backfilled and compacted to preclude later use by kit foxes during the construction period. Any kit foxes discovered inside a den during excavation shall be allowed to escape unharmed before backfilling. If the subject den is determined to be currently occupied by kit foxes, progressive plugging of the den shall be employed to discourage kit fox use of the den until the den is determined unoccupied or for a minimum of 60 nights, which ever comes first.</p>	<p style="text-align: center;">REQUIREMENT TO COMPLY</p> <p>Revised during normal biological monitoring inspections.</p>			

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MITIGATION MEASURE

Known or potential natal dens shall not be excavated from January 1 through April 30 unless otherwise approved by Agencies.

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<p>3.2.4.2 Tipton and Giant Kangaroo Rat Preconstruction surveys shall be conducted within potential habitat for the Tipton and giant kangaroo rat. This shall also include live trapping by permitted biologists.</p> <p>Whenever feasible, burrows of these species shall be avoided by minor rerouting of the pipeline. If the burrows cannot be avoided, the CDFG and USFWS shall be notified. With their concurrence, the burrows may be excavated or trapping or relocation of kangaroo rats may be recommended.</p>	<p>Reviewed during normal biological monitoring inspections.</p>			

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MITIGATION MEASURE	REQUIREMENT TO COMPLY	COMPANY: _____ SPREAD: _____		
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<p>3.2.4.3 San Joaquin Antelope Ground Squirrel Preconstruction surveys shall also be conducted for the San Joaquin antelope ground squirrel. These surveys can be in conjunction with surveys for other species in the San Joaquin Valley. Burrows of this species shall be flagged and avoided where possible by rerouting the line or constricting of the ROW.</p> <p>Where avoidance is not possible, potential burrows shall be hand excavated prior to construction to reduce the potential for mortality.</p>	<p>Reviewed during normal biological monitoring inspections.</p>			

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MITIGATION MEASURE

3.2.4.4 Blunt-nosed Leopard Lizard
 Construction in blunt-nosed lizard habitat shall be limited to period April 15 to September 15, when the species is active.
 Known blunt-nosed leopard lizard burrows or refugia in the construction zone shall be hand excavated and destroyed, with the lizards allowed to escape prior to construction.
 Speed limits in blunt-nosed leopard lizard habitat shall be restricted to 30 mph.

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RECLAMATION/REVEGETATION PLANS

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<p>3.3.2.2 Preconstruction Surveys Existing vegetation characteristics shall be characterized by photographic documentation and characterization of vegetation characteristics. This survey shall be conducted by a qualified plant ecologist approved by the Agencies.</p> <p>A detailed plan of these activities shall be submitted to the Agencies within 30 days of initiation of the preconstruction survey. At a minimum this survey shall include:</p> <p>Aerial photographs and/or videotapes not more than 12 months old at a 1 to 12,000 scale of the entire project.</p> <p>Keyed photographs along each mile of the pipeline alignment. Two shall be taken - one in each direction along the alignment.</p> <p>Where state and/or federally listed plants are encountered, a complete analysis of the population including an absolute count of plants on and adjacent to the alignment or the use of a sampling method that will achieve a statistically valid (95% level of confidence) estimate of population.</p> <p>All data shall be provided to the Agencies and all data compiled during the preconstruction survey within 60 days after construction.</p>	<p>Plan should be reviewed and approved by SLC and other agencies prior to initiation of construction.</p>			

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<p>3.3.2.3 Post-Construction Surveys Post-construction surveys employing the same methodologies shall be conducted approximately five years after construction to serve as mechanism to qualitatively determine the success of the revegetation program. A post-construction survey report shall be submitted to the Agencies within 60 days of completion of the survey.</p>	<p>Plan should be reviewed by appropriate agencies.</p>			

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<p>3.3.2.4 Grading and Erosion Control</p> <p>Once construction is complete, the pipeline alignment and access roads shall be recontoured to approximate the original contour. Heavily compacted soils shall be loosened through the use of a cultivator or similar device. Stockpiled topsoil shall then be placed on the surface.</p> <p>In order to reduce water erosion, slope angle and slope length shall be reduced where appropriate.</p> <p>In addition to the replacement of topsoil, rock and natural plant debris shall also be replaced to reduce erosion potential.</p> <p>Erosion control devices shall be placed where the pipeline alignments or new access roads are constructed on slopes or in other locations such as stream crossings where erosion may occur.</p>	<p>Reviewed during normal biological monitoring inspections.</p>			

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<p>3.3.2.5 Top Soil Banking The top 2-6 inches of soil shall be separated and stock-piled along the pipeline alignment. Once backfilling and recontouring have been completed, this soil shall be replaced.</p>	<p>Reviewed during normal biological monitoring inspections.</p>			

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<p>3.3.2.6 Revegetation Revegetation shall be required in the Tehachapi Mountains and San Joaquin Valley along all areas of the pipeline ROWs and new access roads where non urbanized or nonagricultural vegetation is present.</p> <p>This revegetation program shall consist of reseeding disturbed areas with native seeds typical of the community surrounding that portion of the alignment. Seeds shall be gathered in the proximity of construction area.</p> <p>Seeds shall be placed using a CALTRANS type sheepfoot Creeper.</p> <p>Mulching of seeds shall occur within the San Joaquin Valley and Tehachapi Mountains.</p> <p>Planting shall be conducted between October 15 and January 15.</p> <p>Due to the sensitive resources (e.g., kit fox and kangaroo rats) along the pipeline alignment, reseeding shall only occur once regardless of the success or failure of the revegetation program.</p> <p>Each pipeline company shall submit a detailed plan indicating planting methods, seed rates, and other aspects of the revegetation activity on a milepost by milepost basis.</p>	<p>Reviewed during normal biological monitoring inspections.</p>				

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RECLAMATION/REVEGETATION PLANS

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<p>3.3.2.7 Transplantation Transplantation or replanting of vegetation shall occur on a limited basis only and shall include the following instances:</p> <p>Transplanting sensitive cactus or other sensitive perennial species.</p> <p>Transplanting Joshua trees, and other specimen vegetation along the ROW.</p> <p>Replanting willows, oaks, sycamores, cottonwoods, and other riparian species at stream crossing.</p> <p>Oak removed during construction must be replaced at a ratio of no less than 10:1. Procedures for planting of oaks shall be approved by the Agencies.</p>	<p>Reviewed during normal biological monitoring inspections.</p>			

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<p>3.3.2.8 Restoration of Agricultural Areas The pipeline alignment will cross agricultural areas in various areas primarily within the San Joaquin Valley. In these areas top soil shall be segregated and replaced after backfilling and recontouring. Vegetation such as fruit trees may be replaced at the individual landowners option.</p>	<p>Reviewed during normal biological monitoring inspections.</p>			

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MITIGATION MEASURE 3.3.3.1 (Relaso Dunes) <u>General Requirements and Techniques:</u> All areas of the RCM containing native vegetation shall be restored by the replacement of the segregated topsoil onto the disturbed RCM. After return of the topsoil and the windrowed vegetation, the disturbed areas shall be reprinted. No mulching, fertilization or reseeded shall take place within the Mojave Desert beyond the replacement of the windrowed vegetation. Areas with a high potential for either wind or water erosion shall be stabilized by the use of a tackifier such as J-tac (40-60 lbs/acre).	REQUIREMENT TO COMPLY Reviewed during normal biological monitoring inspections.		

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HABITAT REVEGETATION PLANS

MITIGATION MEASURE	REQUIREMENT TO COMPLY	COMPANY: _____ SPREAD: _____ MONITOR: _____		
		DATE/APPROVAL	MILEPOSTS	COMMENTS
<p>3.3.3.2 Tehachapi Mountains General Requirements and Techniques Revegetation within the Tehachapi Mountains shall require additional erosion control devices due to the steepness of the terrain. Additionally, this area may require additional transplanting or planting of trees and other vegetation.</p> <p>Portions of the route through the Tehachapis will require special procedures. This seed mix shall not be used in areas where valley oak replanting shall be done. Reclamation in those areas shall include surface restoration and imprinting, followed by planting of acorns or young oaks. Steep slopes are present in some portions of the Tehachapi Mountains, especially at MPs 228-231.2 and 254.4-255.4. In areas with steep slopes, erosion shall be controlled and revegetation enhanced by mulching held in place by punching, crimping, or fiber matting. On severe or windy sites, matting, a wood fiber slurry (500 lbs/acre), or a tackifier such as J-tac (40-80 lbs/acre) shall be evaluated for use by the on-site biological monitoring staff at the time of revegetation. Narrow riparian areas are present at mileposts 232.2 and 236.3 of the Mojave route and shall be subject to special procedures including planting of riparian species and erosion control.</p> <p>Valley oak trees destroyed during construction must be replaced. Procedures for replanting valley oaks from other systems and/or seedlings must follow established</p>	<p>Reviewed during normal biological monitoring inspections.</p>			

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MITIGATION MEASURE	REQUIREMENT TO COMPLY	COMPANY: _____ SPREAD: _____		
		MONITOR: _____		
		DATE/APPROVAL	MILEPOSTS	COMMENTS
<p><u>Timing of Planting</u> Planting and seeding shall be conducted between October 15 and January 15.</p>	<p>Reviewed during normal biological monitoring inspections.</p>			

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MITIGATION MEASURE	REQUIREMENT TO COMPLY	COMPANY: _____ SPREAD: _____		
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		DATE/APPROVAL	MILEPOSTS	COMMENTS
<p>3.3.3.3 <u>San Joaquin Valley</u></p> <p><u>General Requirements and Techniques</u> Seeding shall be conducted in all areas of the San Joaquin Valley containing grassland and salt bush communities. Little, if any, transplantation is anticipated with the exception of potential transplanting of sensitive cactus species (Bakersfield beavertail cactus).</p>	<p>Reviewed during normal biological monitoring inspections.</p>			

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HABITAT REVEGETATION PLANS

MITIGATION MEASURE	REQUIREMENT TO COMPLY	COMPANY: _____ SPREAD: _____		
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<p><u>Reseeding Methods and Seed Mixtures</u> <i>Atriplex polycarpa</i> <i>A. spinifera</i> <i>Erodium cicutarium</i> <i>Phacelia tanacetifolia</i> <i>Festuca megalaria</i> <i>Poa scabrella</i> (native grassland areas) Seeds shall be from Southern or central San Joaquin Valley Populations.</p> <p>A CALTRANS type sheepfoot crimper shall be used in tacking the hay mulch following seeding. Hay or straw mulch at a rate of two tons per acre shall be used.</p>	<p>Reviewed during normal biological monitoring inspections.</p>			

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