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Decision 97-06-091 June 25, 1997

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Application of Wild Goose Storage Inc. for a Certificate of Public Convenience and Necessity to Construct Facilities for Gas Storage Operations.	)	ORIGINAL Application 96-08-058 (Filed August 26, 1996)

(See Appendix A for appearances.)

O P I N I O N

Summary of Decision

This decision grants Wild Goose Storage, Inc. (Wild Goose) a certificate of public convenience and necessity (CPC&N) authorizing it to develop, construct, and operate an underground natural gas storage facility and to provide firm and interruptible storage service.

Background

On February 3, 1993, the Commission issued Decision (D.) 93-02-013, 48 CPUC 2d 107 (the Storage Decision) which adopted policies and rules for natural gas utility storage programs. The Storage Decision authorized unbundling of noncore storage service which was consistent with Federal policies, previous unbundling of noncore gas supply and transportation services, and Legislative directives.

The Storage Decision allowed independent storage providers to enter the storage market and compete with existing local distribution companies (LDC), subject to legal requirements.

The Storage Decision, based on a "let the market decide" policy for construction of new storage facilities or expansion of existing facilities, adopted market-based rates for noncore storage including incremental rates for service derived from new or expanded facilities.

The Storage Decision also approved the proposed permanent storage programs of Southern California Gas Company (SoCalGas) and San Diego & Electric Company (SDG&E). In a subsequent decision, D.94-05-069, we adopted a permanent storage program for PG&E as well.

This application of Wild Goose is the first application seeking Commission authorization to provide independent gas storage service pursuant to the Storage Decision. Specifically, Wild Goose seeks a CPC&N authorizing it to develop, construct, and operate an

underground storage facility and to provide firm and interruptible storage services at market-based rates.

The proposed storage facilities will have an inventory capacity of 14 billion cubic feet (Bcf), a daily deliverability of 200 million cubic feet (MMcf) and a maximum daily injection capacity of 80 MMcf. Wild Goose proposes to connect its storage facility to Pacific Gas and Electric Company's (PG&E) Sacramento Valley Local Transmission System.

Along with the application, Wild Goose, as required by the California Environmental Quality Act (CEQA), filed a proponent's environmental assessment which is being reviewed by the Energy Division. Implementation of CEQA requirements is discussed later in this order.

SoCalGas filed a protest to the application claiming that the application fails to comply with several specific requirements of Rule 18 of the Commission's Rules of Practice and Procedure (Commission's Rules). SoCalGas requested that the application be dismissed or, in the alternative, evidentiary hearings be held in the matter.

Wild Goose filed a reply to SoCalGas' protest in which Wild Goose stated that the issues raised in SoCalGas' protest indicate a misunderstanding of not only the information contained in the application, but Commission policy as well.

A prehearing conference (PHC) was held on November 6, 1996, before Administrative Law Judge (ALJ) Garde during which the proceeding was bifurcated in two phases. The first phase will address the issues raised in SoCalGas' protest and the second phase will address the requirements of CEQA.

Also during the PHC, a schedule for Phase I of the proceeding was adopted. According to the schedule, all parties, except Wild Goose, were to serve their prepared testimony by January 15, 1997. Wild Goose agreed to file its rebuttal testimony by January 31, 1997.

In accordance with Phase I schedule, SoCalGas, PG&E, and the Office of Ratepayer Advocates (ORA) served their testimony in January and Wild Goose served its rebuttal testimony on January 31, 1997.

Evidentiary hearings in Phase I were held on February 10 and 11, 1997 in San Francisco. The matter was submitted on March 19, 1997 upon receipt of reply briefs.

Issues

While no party opposes granting Wild Goose the requested CPC&N, SoCalGas, PG&E, and ORA raise the following collateral issues:

- Should all providers of gas storage services, including the existing LDCs, be subject to the same regulatory guidelines and have the same contracting flexibility?
- Should storage withdrawals from all storage fields in California have the same priority for intrastate transmission of gas?
- Should cost allocation of interconnection charges be determined on a case-by-case basis and, for this proceeding, be found unique to PG&E?
- Should Wild Goose bear the cost of any system upgrades to PG&E's transmission facilities that may be needed in the future?

We will address each issue separately.

Regulatory Guidelines

SoCalGas' Position

SoCalGas believes that even though Wild Goose, upon acceptance of its CPC&N, will become a "gas corporation" within the meaning of the Public Utilities (PU) Code and will thereby be subject to regulation by and the jurisdiction of the Commission, Wild Goose is asking the Commission to exempt it from certain regulatory burdens and restrictions placed on SoCalGas' program. According to SoCalGas, if the Commission grants Wild Goose's

request, regulatory disparities will exist between SoCalGas and Wild Goose which will affect SoCalGas' customers adversely.

SoCalGas states that the Storage Decision restricts its long-term contracts to a minimum of 3 years and a maximum of 15 years and requires SoCalGas to submit its long-term contracts to the Commission for prior approval if such contracts are with off-system customers or if they provide for discounts or load balancing premiums or contain other special features. According to SoCalGas, in a clear attempt to gain a competitive advantage over SoCalGas in the provision of storage services, Wild Goose proposes that its contracts not be subject to such restrictions or conditions while SoCalGas' contracts remain so. SoCalGas recommends that to eliminate this disparity the Commission should allow the storage contract term to be determined by the storage provider and the customer and that the necessity for prior approval of contracts be eliminated.

Finally, SoCalGas states that one other area where an inequity will be created if Wild Goose's applications is granted relates to the regulatory filing requirement to establish tariffs for existing storage programs required by the Storage Decision. Wild Goose proposes not to file tariffs for its programs. SoCalGas contends that, in implementing its storage program, SoCalGas was required to file tariffs which, pursuant to the Commission Rules, required that SoCalGas provide a great deal of detail regarding each of its services and rates and that this process was open to all interested parties, including potential competitors, who then had the opportunity to challenge each and every aspect of the regulatory filings. SoCalGas recommends that Wild Goose be subjected to the same filing requirements.

Wild Goose's Position

Wild Goose disagrees with SoCalGas' position that if Wild Goose is allowed to enter the storage market, then the Commission should lift all restrictions currently placed on SoCalGas'

unbundled storage service in order to provide a level playing field.

Wild Goose states that SoCalGas' storage service (as well as PG&E's) is currently the beneficiary of a Commission-authorized subsidy because 100% of its unmarketed, existing storage service receives transition cost treatment such that shareholders are not responsible for any of the revenue shortfall. Shareholder responsibility increases only slightly (to 25%) if the revenue shortfall is due to the discounting of existing capacity. These shortfalls are made up through SoCalGas' transportation rates. This large benefit for SoCalGas came with a small price. According to Wild Goose, in conjunction with authorizing SoCalGas to subsidize its storage program through its transportation rates, the Commission placed certain restrictions on its storage contracts, namely, the duration of the contracts and the requirement that such contracts be submitted to and/or approved by the Commission. Wild Goose believes that the purpose of such restrictions was to protect the core ratepayer, i.e., to ensure that the core ratepayer is not unduly subsidizing the contract storage program.

Wild Goose asserts that it is an independent storage provider. It will not offer transmission or distribution service. To the extent that it has unmarketed capacity or to the extent that it must discount its capacity, its shareholders will be 100% at risk. There will be no cross-subsidization. According to Wild Goose, the Commission's rationale for placing restrictions on SoCalGas' storage contracts simply does not apply to Wild Goose because protection of the core ratepayer is not at issue. Accordingly, Wild Goose recommends that SoCalGas's proposals be denied.

As to SoCalGas' proposal that Wild Goose be required to file its rate tariff with the Commission, Wild Goose states that its proposed market-based rates negate the rationale of having a rate tariff on file with the Commission. According to Wild Goose,

Commission approval of its use of market-based rates will constitute recognition by the Commission that whether the rates are just and reasonable is not the determining factor in approving Wild Goose's request for a CPC&N. Accordingly, Wild Goose requests that the Commission, upon certification of the Wild Goose Project, grant it waiver of Section 489 of the PU Code which requires that a utility maintain a tariff of all applicable rates on file at the Commission. Wild Goose points out the authority to approve such a waiver is bestowed upon the Commission by PU Code Section 490. PU Code Section 490 allows for the modification, by order of the Commission, of any required tariff schedules. Wild Goose believes that the Commission has the authority to grant Wild Goose's requested waiver.

If, however, the Commission determines not to waive the rate tariff filing requirements of PU Code Section 489 entirely, then, in the alternative, Wild Goose requests that it be allowed to file a tariff which states a range of rates of sufficient breadth so as to account for what are often large fluctuations in the market. According to Wild Goose, authorization to charge rates within such a large band will give Wild Goose the ability to track the market without repeated tariff filings. Wild Goose also requests that any rate filing requirement which is imposed on it should not be predicated on stating rates calculated directly from the project cost information. Wild Goose believes that the disclosure of such information by a new market entrant places it at a severe disadvantage vis-a-vis the incumbent utilities who enjoy the benefit of being able to discount their storage services while being protected from the impacts of such discounting. Wild Goose asserts that if such players have access to Wild Goose costs, they then will be able to undercut Wild Goose in the market and then shift their under-recovered storage costs to their transmission rates.

Wild Goose states that its application provides the Commission with all the elements necessary to approve the use of market-based rates by an independent storage provider. Wild Goose requests that the Commission should grant it the authority to (1)negotiate rates with its customers; and (2) forgo the filing of rate tariffs with the Commission.

Discussion

The Storage Decision placed certain restrictions on SoCalGas' storage contracts, such as duration of contract and preapproval of contract, because SoCalGas' storage operations serve both ratepayers and contract customers. To the extent the storage operations serve ratepayers, their costs are borne by ratepayers. The other storage operations costs are borne by contract customers. These requirements on SoCalGas' contracts are necessary to protect ratepayers against the possibility of providing a subsidy to SoCalGas' contract customers, which is evident from the following statement in the Storage Decision:

> "In order to protect ratepayers against support of unnecessary price discounts, contracts that contain bypass discounts require Commission approval by resolution. The advice filings must contain information sufficient to demonstrate that the interim bypass guidelines - regarding credibility of the bypass threat, duration, floor price, and contribution to margin - are met. Conventional protest rules under General Order 96-A will apply to these advice filings. Contracts with off-system customers should be treated similarly, to allow review of the reasonableness of load balancing price premiums." (48 CPUC2d at 130.)

Wild Goose is an independent storage provider. It proposes to charge market-based rates. It will not offer transmission or distribution services. To the extent that Wild Goose has unmarketed capacity or to the extent it must discount its capacity, its shareholders will bear the entire risk. There appears to be no possibility of cross-subsidization. Accordingly,

the protection of core ratepayers is not at issue and putting of similar restrictions on Wild Goose's contracts is not necessary.

Next, we will consider Wild Goose's request for a waiver from filing rate tariffs with the Commission. We are not persuaded by Wild Goose that a public utility can be granted a waiver from filing rate tariffs required by PU Code Section 489. However, we believe that Wild Goose's request to file tariff rates which provide a range of rates of reasonable breadth to account for market fluctuations is not unreasonable. We have allowed some telecommunications utilities to file tariff rates with rates which fall within a range of rates or rate window. The rate window has a floor rate and a ceiling rate.

Given the fact that Wild Goose is proposing to charge market-based rates, we will allow it to file tariffs with a rate window to allow for fluctuations in the market.

In authorizing Wild Goose to file tariffs with a rate window we must ascertain that the floor and ceiling rates are reasonable. Wild Goose's floor rate should not be below its short-run marginal cost. If Wild Goose is allowed to charge rates below its short-run marginal cost, Wild Goose may be engaging in predatory pricing, which would be unfair and perhaps illegal. We will, however, allow Wild Goose freedom in setting its ceiling rate, because if a potential or existing gas storage customer finds Wild Goose's rate to be excessive, the customer will have the option of receiving storage service from either PG&E or SoCalGas at their tariff rates.

Finally, we note that Wild Goose also requests that its rate cost calculations not be made a part of its tariffs. We will allow Wild Goose to not include its rate cost calculations with its tariff. However, Wild Goose should make this information available to the Commission's Energy Division staff to enable the staff to verify that Wild Goose's floor rate is not below its short-run

marginal cost. Wild Goose may request confidential treatment of this information under appropriate Commission rules.

Transmission Priority For Stored Gas

As stated earlier, the gas stored by Wild Goose will be transported on PG&E's transmission system. Wild Goose will receive gas transmission service in accordance with PG&E's tariff rules. Wild Goose qualifies as an on-system storage provider according to Rule 1 of PG&E's tariff. An on-system storage provider is defined in Rule 1 of PG&E's tariff as:

> "An entity, acknowledged by the CPUC as providing storage services within California, which is physically connected to the PG&E pipeline (transmission) system with facilities dedicated to transmission, injection and withdrawal of gas supply, and which also has interconnection and a storage operating agreement with PG&E or is owned by PG&E."

Being an on-system storage provider, Wild Goose, in accordance with Rule 14 of PG&E's tariff, receives the same intrastate transmission priority for storage withdrawals as the gas stored in PG&E's own system.

SoCalGas believes that to provide a level playing field, the Commission should require that withdrawal from all in-state storage facilities be given the same transmission priority on any California transmission system, including PG&E's system.

In this proceeding, we are determining whether or not Wild Goose should receive its CPC&N to operate a storage facility. Withdrawals from Wild Goose's storage will receive transmission priority in accordance with PG&E's tariff rules. Wild Goose is not receiving special treatment in regards to transmission priority.

The issue of intrastate transmission priority for all storage withdrawal is beyond the scope of this proceeding. This issue has statewide ramifications. Accordingly, all parties which would be affected by setting of transmission priority should have an opportunity to make their showing on this issue. Not all

parties affected by this issue are party to this proceeding. We will not address this issue here.

Treatment of Interconnections

In the Storage Decision, the Commission addressed, among other things, cost responsibility associated with the interconnection of independent storage providers. According to the decision:

> "....Utilities should interconnect with independent storage providers as if the latter were consumers of gas. Thus standard interconnection costs will be recovered on a rolled-in basis. Special facilities costs will be charged to the storage provider...." (48 CPUC2d at 127.)

As part of their ongoing discussions, Wild Goose and PG&E have identified the necessary interconnection facilities, and categorized them into "standard" and "special" facilities for cost allocation purposes in accordance with Rule 2 of PG&E's tariff as directed by the Commission in the Storage Decision:

> "PG&E's Rule 2 is a reasonable model for determination of what are standard facilities costs and what are special facilities costs." (48 CPUC2d at 128)

In Exhibit 13, which is included as Appendix B to this order, PG&E and Wild Goose have agreed to the classification of standard and special facilities for the interconnection between Wild Goose's system and the Sacramento Valley Local Transmission System.

Exhibit 13 also includes the agreed-upon principles of cost allocation between Wild Goose and PG&E for standard and special facilities. However, Exhibit 13 does not contain a cost estimate or total cost of the project. ORA recommends that this information should be made available to the Commission. We agree. We will require Wild Goose to provide this information in a supplemental filing.

While SoCalGas does not disagree with the agreed-upon classification and cost allocation for interconnection, SoCalGas requests that the classification of standard and special facilities for future interconnections be determined on a case-by-case basis and not found to be binding on SoCalGas. ORA concurs with SoCalGas. We agree with SoCalGas that operation of new storage facilities may be under different circumstances and that each interconnection should be dealt with on a case-by-case basis. We will adopt the agreed-upon principles of classification and cost allocation contained in Exhibit 13 for this proceeding only.

System Upgrades

The interconnection agreement set forth in Exhibit 13 is part of a more comprehensive agreement, a Memorandum of Understanding (MOU), that Wild Goose and PG&E were attempting to negotiate. The MOU, which is contained in Exhibit 14, contemplated agreement not only on interconnection cost responsibility, but an agreement on principles to be included in an operating and balancing agreement. PG&E believes that an operating and balancing agreement between Wild Goose and PG&E must be in place before Wild Goose can commence operation of its facility to ensure safe operation of PG&E's system.

Wild Goose and PG&E were unable to finalize the MOU before the Phase I hearing because of their difference of opinion concerning cost responsibility of transmission system upgrades that will be necessary in the future to maintain the injection capability PG&E currently estimates will be available to Wild Goose's facility. Once the need for future transmission system upgrades is identified, PG&E proposes that Wild Goose should either pay for these upgrades or accept diminished injection capabilities.

During the hearings, PG&E offered an alternative proposal. PG&E offered to allocate to Wild Goose the facilities necessary to accommodate Wild Goose's specified injection

capabilities (80 MMcf per day or less) in return for Wild Goose's payment of replacement cost of these facilities.

Wild Goose disagrees with PG&E's position regarding future upgrades to PG&E's transmission system. Wild Goose believes that any such upgrades to PG&E's transmission system are caused by all users of that system and will provide benefit to all users, and accordingly, should be borne equally by all such users, including PG&E's shippers who wish access to and from Wild Goose's facility.

ORA opposes Wild Goose's recommendation that Wild Goose be exempt from any responsibility for future transmission upgrades. However, ORA recommends that any future upgrades be reviewed for cost allocation when the need for such upgrade arises. According to ORA, the Commission should not resolve the cost allocation for future upgrades in this proceeding.

Wild Goose is opposed to ORA's proposal to defer the consideration of cost allocation for future system upgrades. Wild Goose states that deferral of the issue would serve as an impediment to the advancement of this project, in particular, and to other potential new gas storage providers in the future. According to Wild Goose, such a deferral would require it to factor a significant financial uncertainty into the economies of the project which Wild Goose finds to be very discouraging.

Discussion

The Commission in the Storage Decision deferred consideration of transmission system upgrades stating that:

> ". . . The choice of incremental or rolled-in pricing for transmission and distribution upgrades is not ripe for a decision. We anticipate further argument on the issue in any CPCN proceeding that McFarland or any other provider might initiate, or on other proceedings that the parties find convenient." (48 CPUC2d at 128.)

Although this is the first CPC&N proceeding for gas storage provider since the issuance of the Storage Decision, we

still are not prepared to resolve the issue of cost allocation for transmission upgrades without having more information available to us. We are particularly reluctant to allocate costs for "potential" future system upgrades without knowing when such upgrades will be needed, and who are the parties responsible for the need for upgrades. We expect PG&E to bring this issue before us when the upgrade to its transmission system is needed.

We recognize that this deferral would require Wild Goose to take into account some financial uncertainty regarding its proposed operations. However, this simply is a business risk that Wild Goose must accept if it decides to proceed with the project.

Finally, we will consider PG&E's proposal that an operating and balancing agreement between Wild Goose and PG&E must be in place before Wild Goose commences its operations to ensure safe operation of PG&E's system. Wild Goose does not oppose PG&E's proposal. To avoid any future problems resulting from misunderstandings, the agreement proposed by PG&E must be in place before Wild Goose commences its operation; besides such an agreement is required by Rule 1 of PG&E's tariff. We will require Wild Goose to execute an operating and balancing agreement with PG&E before commencing its operations.

Implementation of CEQA

CEQA requires the Commission to assess the potential environmental impact of a project in order that adverse effects are avoided, alternatives are investigated, and environmental quality is restored or enhanced to the fullest extent possible. To achieve this objective, Rule 17.1 of the Commission's Rules requires the proponent of any project subject to Commission approval to submit with the application for such project an environmental assessment, which is referred to as the Proponent's Environmental Assessment (PEA). The PEA is used by the Commission to focus on any impacts of the project which may be of concern and to prepare the Commission's Initial Study to determine whether the project would need a Negative Declaration or an Environmental Impact Report (EIR).

As stated earlier, Wild Goose filed its PEA with the application. The staff of the Energy Division (ED Staff) reviewed the PEA and found it to be deficient. By a letter dated September 25, 1996, ED Staff informed Wild Goose about the deficiencies in its PEA. In response to ED Staff's letter, Wild Goose filed an amendments to its PEA on November 1, 1996 and January 13, 1997. ED Staff found Wild Goose's amended PEA acceptable on February 5, 1997.

ED Staff employed the services of ENTRIX, Inc. (ENTRIX) of Sacramento as an environmental consultant to review the PEA. Based on its Initial Study, ENTRIX concluded that there are potential adverse environmental effects associated with the project, but these effects could be effectively mitigated if Wild Goose employed various planning and construction techniques approved by federal, state and local agencies. Based on this information, ED Staff decided to prepare a mitigated Negative Declaration.

On March 31, 1997, ED Staff published a draft Negative Declaration regarding Wild Goose's proposed facility. As required

by Rule 17.1(f) of Commission's Rules, ED Staff provided notice of availability of the Negative Declaration to all interested parties, including all parties to this proceeding. ED Staff requested comments on the draft Negative Declaration by April 29, 1997.

ED Staff received comments to the draft Negative Declaration from a several entities including state, and local governmental agencies and from members of the general public. Comments were also filed by the Mid-Valley Building and Construction Trades Council/Plumber and Pipefitters Union, Local 228/Plumbers and Steamfitters Union, Local 342 (Unions), and the Roseville Land Development Association (Roseville Land). Both parties state that the draft Negative Declaration does not comply with CEQA, specifically, the mitigation measures are inadequate in preventing or reducing potential impacts to an insignificant level. The Unions request the Commission for a hearing. ED staff has reviewed the comments of the Unions and Roseville Land, and has responded to each comment (see Appendix A of the Negative Declaration). ED Staff has also incorporated the other comments in the Negative Declaration. ED staff concludes that the final Negative Declaration which includes the aforementioned revisions complies with CEQA and that construction of Wild Goose's facility at the proposed site will not have a significant effect on the environment. ED Staff's conclusion was based on the assumption that Wild Goose will carry out the specific mitigation measures outlined in the final Negative Declaration which is included as Appendix C to order.

Comments on ALJ's Proposed Decision

ALJ's proposed decision was filed and mailed to the parties on May 22, 1997. Wild Goose, PG&E, SoCalGas, SDG&E, and Mid-Valley Building and Construction Trades Council, Plumbers and Pipefitters Union, Local 228, and Plumbers and Steamfitter Union, Local 342 (Mid-Valley/Unions) filed comments on the proposed decision. Wild Goose, PG&E, and SoCalGas filed reply comments.

Comments by parties cover both Phase I and Phase II issues. We will discuss them separately.

Phase I Issues

Wild Goose, PG&E, SoCalGas, and SDG&E have filed comments on Phase I issues. PG&E, in its comments, has pointed out certain errors in the proposed decision. We have reviewed the comments and believe that other than correction of the errors in the proposed decision, only the following of two issues need to be addressed.

Allocation of Cost of Future Upgrades

PG&E and Wild Goose were unable to resolve the issue of cost allocation between Wild Goose and PG&E for upgrades to PG&E's transmission system that may be necessary in the future to maintain the injection capability PG&E currently estimates will be available to Wild Goose's facility. The proposed decision defers consideration of the issue until more information is made available regarding the future upgrades.

In its comments on the proposed decision, Wild Goose proposes that the Commission adopt a policy to use a cost/benefit analysis in determining cost allocation between Wild Goose and PG&E for future upgrades to PG&E's system.

PG&E opposes Wild Goose's proposal stating, among other things, that the proposal is beyond the scope of comments provided in Rule 77.3 of the Commission Rules. SoCalGas also opposes Wild Goose's proposal.

While we believe that the proposal has merit, we are reluctant to adopt a policy regarding cost allocation without providing other parties an opportunity to make their proposal on the cost/benefit analysis. Accordingly, we will keep this proceeding open for the limited purpose of addressing the issue of cost allocation of future upgrades to PG&E's transmission system.

PG&E's Ability to Recover Stranded Cost

The proposed decision contains language denying PG&E the ability to recover the stranded cost of its storage system which

may result if Wild Goose succeeds in attracting storage customers away from PG&E.

In their comments on the proposed decision, PG&E, SoCalGas, and SDG&E state that the record on this issue is inadequate and that the language should be deleted.

We agree. We will delete the appropriate language from the decision.

Phase II Issues

Only Wild Goose and Mid-Valley/Unions have filed comments on Phase II issues. Both Wild Goose and Mid-Valley/Unions request that certain mitigation measures included in the Negative Declaration should be clarified and/or enhanced. Their comments and the resulting changes to the Negative Declaration are discussed in Attachment B to the Negative Declaration.

In addition, Wild Goose, in conjunction with Mid-Valley/Unions, recommends that specific language contained in the Negative Declaration (p. ND-21) be included as an ordering paragraph of the decision, to clarify Wild Goose's obligation to consult with the Commission in the event that an expansion of Wild Goose's project is contemplated. According to Wild Goose and Mid-Valley/Unions, such consultation is the most appropriate way to ensure that the correct type of environmental review is performed and should be a specific requirement of the Commission's order, rather than merely a part of the text of the Negative Declaration. Wild Goose and Mid-Valley/Unions recommend the inclusion of the following ordering paragraph:

> "If Wild Goose seeks to expand or modify its physical facilities to the extent that discretionary approval by a public agency is required, it shall consult with the Commission, so that the Commission may ensure that the appropriate environmental analysis of the impacts of Wild Goose' specific proposal may be performed."

We agree with the proposal made by Wild Goose and Mid-Valley/Union. We will include the recommended ordering paragraph as Ordering Paragraph 10. We will also add appropriate findings of fact and conclusion of law.

Petition to Set Aside Submission of the Proceeding

On May 28, 1997, Roseville Land Development Association (Roseville Land) filed a petition to set aside submission of this proceeding and to renotice and reopen the proceeding for additional evidence. Roseville Land also filed a motion for leave to file late protest.

By a ruling dated June 20, 1997, the ALJ denied Roseville Land's petition to set aside submission of this proceeding and Roseville Land's motion for leave to file late protest. We affirm the ALJ's ruling.

Findings of Fact

1. Wild Goose seeks a CPC&N authorizing it to develop, construct, and operate an underground natural gas storage facility and to provide firm and interruptible storage service.

2. As required by CEQA, Wild Goose filed its PEA.

3. While no party opposes granting Wild Goose the requested CPC&N, SoCalGas, PG&E, and ORA have raised certain collateral issues which need to be addressed.

4. SoCalGas recommends that Wild Goose be subject to the same regulatory requirements that govern the existing gas storage service providers such SoCalGas and PG&E.

5. SoCalGas requests if the Commission decides to grant Wild Goose the requested CPC&N, the Commission remove certain restrictions placed on SoCalGas' storage contracts by the Storage Decision such as the limit on duration of the contracts and the need to seek preapproval of SoCalGas' storage contracts.

6. SoCalGas' storage operations serve both ratepayers and contract customers.

7. The Storage Decision placed restrictions on SoCalGas' storage contracts to protect the ratepayers from the possibility of providing a subsidy to SoCalGas' contract customers.

8. Wild Goose proposes to charge market-based rates for its gas storage services.

9. To the extent that Wild Goose has unmarketed capacity or to the extent it must discount its services, its shareholders will bear the entire risk.

10. There is no possibility of cross-subsidization in Wild Goose's proposed service.

11. If the Commission grants Wild Goose the requested CPC&N, Wild Goose will become a public utility.

12. PU Code Section 489 requires public utilities to have a rate tariff on file with the Commission.

13. Wild Goose requests that the Commission waive the requirement to file rate tariff for Wild Goose or in the alternative allow Wild Goose to file a tariff which states a range of rates.

14. The Commission has authorized certain telecommunication utilities to file tariff rates which fall within a rate window.

15. Allowing Wild Goose to file rates with a rate window would allow Wild Goose to account for fluctuation in the market.

16. If Wild Goose is allowed to set the floor rate of its rate window below Wild Goose's short-run marginal cost, Wild Goose will be able to unfairly undercut its competition.

17. If a potential or existing customer finds the ceiling rate of Wild Goose's rate window to be excessive, the customer can seek storage service from either PG&E or SoCalGas at their tariff rates for storage.

18. Wild Goose requests that its rate calculations not be made part of its tariff filing because disclosure of such information will provide competitive advantage to existing storage service providers.

19. The staff of Commission's Energy Division can certify that the floor rate of Wild Goose's rate window is not below Wild Goose's short-run marginal cost only if Wild Goose provides the staff its rate calculations.

20. Storage withdrawals from Wild Goose's facility will receive transmission priority in accordance with Rule 1 of PG&E's tariff.

21. SoCalGas requests that all in-state storage withdrawal be given the same priority on any interstate transmission system.

22. SoCalGas' proposal regarding establishing transmission priorities for withdrawals from all in-state storage facilities is beyond the scope of this proceeding.

23. The Storage Decision requires utilities to interconnect with independent storage service providers as if the storage service providers were consumers of gas.

24. The Storage Decision requires the utility to pay for standard interconnection costs and the storage service provider to pay for special interconnection facilities.

25. PG&E and Wild Goose have agreed to the classification of standard and special facilities for the interconnection between Wild Goose's system and the Sacramento Valley Local Transmission System. The agreement, which is in accordance with Rule 2 of PG&E's tariff, is included in Appendix B.

26. While SoCalGas and ORA do not dispute the agreed-upon classification of standard and special facilities and the principles of cost allocation, they request that the classification be considered unique to this facility and that classification of standard and special facilities for future interconnections be dealt on a case-by-case basis.

27. Classification of standard and special facilities for each interconnection may vary depending on the configuration of facilities of the utility and the storage service provider.

28. While Appendix B includes the agreed-upon principles of cost allocation between Wild Goose and PG&E for standard and special facilities, it does not contain a cost estimate or total cost of the project. ORA requests that Wild Goose and PG&E be required to provide the Commission, as a supplemental filing, the final cost of interconnection including the share of the cost paid by each entity.

29. PG&E and Wild Goose disagree regarding who should pay for future upgrades to PG&E's transmission system.

30. Adequate information regarding the future upgrades to PG&E's transmission system will not be available until the upgrades are needed.

31. In accordance with Rule 1 of its tariff, PG&E requests that the Commission order that an operating and balancing agreement between Wild Goose and PG&E be in place before any gas flows through the interconnection between the facilities of Wild Goose and PG&E.

32. Having an operating and balancing agreement between PG&E and Wild Goose in place before Wild Goose commences its operations will avoid future problems due to misunderstandings.

33. CEQA requires the Commission to assess the potential environmental impact of a project.

34. ED Staff, through its consultant, has conducted a study of the environmental impact of Wild Goose's proposed facility.

35. ED Staff has concluded that construction of Wild Goose's proposed facility will not have a significant impact on the environment if Wild Goose will meet the conditions and carry out the specific mitigation measures outlined in the Negative Declaration.

36. The conditions outlined in the Negative Declaration require Wild Goose to provide ED Staff reports on compliance with the conditions and implementation of mitigation measures.

37. Wild Goose has agreed to comply with the conditions and to carry out the specific mitigation measures outlined in the Negative Declaration.

38. Wild Goose and Mid-Valley/Unions recommend that the following ordering paragraph be added to this order.

> "If Wild Goose seeks to expand or modify its physical facilities to the extent that discretionary approval by a public agency is required, it shall consult with the Commission, so that the Commission may ensure that the appropriate environmental analysis of the impacts of Wild Goose' specific proposal may be performed."

39. Inclusion of ordering paragraph recommended by Wild Goose and Mid-Valley/Unions will clarify Wild Goose's obligation to consult with the Commission in the event an expansion of Wild Goose's project is contemplated.

40. In its comments on the proposed decision, Wild Goose proposes that the Commission adopt a policy to use a cost/benefit analysis to allocate costs of future upgrades to PG&E's transmission system.

41. While Wild Goose's proposal to use cost/benefit analysis for cost allocation of future upgrades has merit, the proposal should not be adopted without providing other parties an opportunity to make their proposal on the issue.

Conclusions of Law

1. Wild Goose should be granted the requested CPC&N conditioned upon a successful completion of environmental impact review of its proposed facilities.

2. SoCalGas' request that Wild Goose be subjected to the same regulatory requirements that govern the existing gas storage service providers should be denied.

3. Wild Goose should be required to file a rate tariff with the Commission.

4. Wild Goose should be allowed to file tariff rates within a rate window.

5. The floor rate of Wild Goose's rate window should not be below Wild Goose's short-run marginal cost.

6. Wild Goose should be required to provide its rate calculations to ED Staff.

7. The agreement between Wild Goose and PG&E regarding the classification of standard and special interconnection facilities and the principles of cost allocation should be approved.

8. Classification of standard and special facilities, and the principles of cost allocation for future interconnections should be determined on a case-by-case basis. Wild Goose should be required to provide the Commission, in a supplemental filing, the final total cost of the interconnection including the cost paid by each entity.

9. Consideration of cost allocation for future upgrades to PG&E's Sacramento Valley Local Transmission System should be deferred until the upgrades are needed.

10. PG&E and Wild Goose should be required to have an operating and balancing agreement before Wild Goose commences its operations.

11. Wild Goose should be granted a CPC&N to construct and operate its storage facility and to provide storage service at market-based rates.

12. Wild Goose should be required to comply with the conditions and to carry out the specific mitigation measures outlined in the Negative Declaration.

13. Ordering paragraph recommended by Wild Goose and Mid-Valley/Unions should be included in this order.

14. This proceeding should remain open for the limited purpose of addressing the issue of cost allocation of future upgrades to PG&E's transmission system.

15. This order should be made effective today to allow Wild Goose to commence the construction of its storage facilities expeditiously.

O R D E R

IT IS ORDERED that:

1. Wild Goose Storage, Inc. (Wild Goose) is granted a certificate of public convenience and necessity (CPC&N) authorizing it to develop, construct, and operate an underground natural gas storage facility and to provide firm and interruptible storage service. The CPC&N is subject to the terms and conditions set forth below.

2. Within 60 days of the effective date of this order, Wild Goose shall file a written acceptance of the CPC&N granted in this proceeding.

3. Before commencing its service to customers Wild Goose shall file with this Commission an advice letter and accompanying tariff schedules which will meet the criteria set forth in the body of the decision and the requirements of Commission's General Order 96-A.

4. Wild Goose's tariff rate shall not be lower than Wild Goose's short-run marginal cost.

5. Wild Goose shall provide the Director of the Energy Division with the calculations used in developing its rates. The tariff shall not be effective until approved by the Commission's Energy Division.

6. Wild Goose and Pacific Gas and Electric Company (PG&E) shall have in place an operating and balancing agreement before Wild Goose commences its operations. The agreement shall be filed with the Commission's Docket Office.

7. The agreement between Wild Goose and PG&E regarding the classification of standard and special interconnection facilities and the principles of cost allocation is approved. This approval is granted only for this facility. Before commencing its operations, Wild Goose shall provide the Director of the Energy Division, in a supplemental filing, the final total cost of the

interconnection including the share of the cost paid by each entity.

8. Wild Goose shall comply with the conditions and carry out the mitigation measures outlined in the Negative Declaration contained in Appendix C to this order.

9. Wild Goose shall provide the Director of Energy Division reports on compliance with the conditions and implementation of mitigation measures outlined in the Negative Declaration.

10. If Wild Goose seeks to expand or modify its physical facilities to the extent that discretionary approval by a public agency is required, it shall consult with the Commission, so that the Commission may ensure that the appropriate environmental analysis of the impacts of Wild Goose' specific proposal may be performed.

11. This proceeding shall remain open for the limit purpose of considering allocation of cost of future upgrades to PG&E's transmission system.

12. Since all issues raised in this proceeding have been addressed, the proceeding in Application 96-08-058 is closed.

This order is effective today.

Dated June 25, 1997, at San Francisco, California.

P. GREGORY CONLON
President
JESSIE J. KNIGHT, JR.
HENRY M. DUQUE
JOSIAH L. NEEPER
RICHARD A. BILAS
Commissioners

We will file a joint partial dissent.

/s/ JESSIE J. KNIGHT, JR.
Commissioner
/s/ HENRY M. DUQUE
Commissioner
/s/ JOSIAH L. NEEPER
Commissioner
/s/ RICHARD A. BILAS
Commissioner

APPENDIX A

List of Appearances

Applicant: Wright & Talisman, by Michael B. Day and Jeanne M. Bennett, Attorneys at Law, for Wild Goose Storage, Inc.

Interested Parties: Downey, Brand, Seymour & Rohwer, by James M. Day, Jr., Attorney at Law, for Palmer Hatch; Steven D. Patrick, Attorney at Law, for Southern California Gas Company; Michel Peter Florio and Theresa Mueller, Attorneys at Law, for The Utility Reform Network; Adams & Broadwell, by Lizanne Reynolds, Attorney at Law, for Plumbers and Steamfitters Local 342, Plumbers and Pipefitters Local 228, and the MidValley Building Trades Council; Deborah Walker and Edward V. Kurz, Attorneys at Law, for Pacific Gas and Electric Company; Steven Harris, for Transwestern Pipeline Co.; and Judy Pau, for El Paso Natural Gas Co.

Office of Ratepayar Advocates: Patrick L. Gileau, Attorney at Law, and Martin Homec.

Energy Division: Bruce Kaneshiro.

(END OF APPENDIX A)

APPENDIX B

INTERCONNECTION PRINCIPLES
AGREED TO BY
WILD GOOSE STORAGE INC. AND PACIFIC GAS & ELECTRIC CO.

INTERCONNECTION FACILITIES

Standard Facilities:

1. Under PG&E's Gas Rule 2, Standard Facilities are designed by PG&E for delivery of gas at PG&E's adopted standard delivery pressure of seven inches of water column. For customers requesting higher than standard delivery pressures, PG&E may, at its option, design standard facilities, specific to a customer's connected load needs, for delivery of gas at a pressure higher than standard delivery pressure where such higher pressure is available from existing facilities at the point at which a customer's facilities interconnect with PG&E's facilities (Interconnection Point).

2. The Parties agree that for the purpose of determining Standard Facilities for the Wild Goose storage field a comparable customer load would be a transmission customer with gas usage equal to the injection capabilities of the Wild Goose storage facility (80 MMcf/day) and for delivery service at existing pressure ranging between 325 psig and 800 psig at the Interconnection Point. Accordingly, the Standard Facilities required for the Wild Goose facility are those listed in the attached Exhibit A (Design Criteria, Item 2).

3. PG&E has used reasonable care in determining the minimum pressure currently available, and what is expected to be available in the foreseeable future, for designing Wild Goose Standard Facilities. PG&E does not guarantee minimum pressure to those customers requiring higher pressure than Gas Rule 2 standard delivery pressure. PG&E will try to provide Wild Goose adequate notice of any proposed reduction in pressure; however conditions at the time may not permit advance notification. In any event, PG&E, its directors, officers, agents and employees will not be held responsible for any damage, loss or expense in any way from a reduction to a delivery pressure not less than PG&E's standard delivery pressure.

Special Facilities:

1. Special facilities are those facilities that are (1) necessary to provide an applicant the services it requests; and (2) are in addition to or in substitution for Standard Facilities.

2. The Special Facilities which PG&E has identified to date as necessary for the interconnection of the Wild Goose facility are listed in the attached Exhibit A (Design Criteria, Item 3).

3. The Parties agree that, due to the uniqueness of the Wild Goose storage facility interconnection to PG&E Local Transmission System, changes to the required Special Facilities may be identified as a result of the final engineering analysis. Additional Special Facilities that are identified by PG&E after the final engineering design, shall be agreed upon by Wild Goose and PG&E.

Special Facilities as Upgrades to Existing System Facilities:

1. System Upgrades or facility additions also categorized as Special Facilities include, but are not limited to (1) automatic controls at PG&E meter and pressure regulating stations necessary to provide the operating flexibility required to maximize Wild Goose injection and withdrawal rates and, (2) upgrades to PG&E's GasTrac computer system to enable the administration of nominations and appropriate tracking of Wild Goose volumes.

2. The Special Facilities as Upgrades to Existing System Facilities currently identified for the interconnection of the Wild Goose storage facility are listed in the attached Exhibit A (Design Criteria, Item 4).

COST ALLOCATION OF FACILITIES

1. Standard Facilities -- The cost of Standard Facilities shall be borne by PG&E Ratepayers pursuant to California Public Utilities Commission Decision 93-02-013.

2. Special Facilities -- Wild Goose shall bear the cost of all Special Facilities identified in Exhibit A, Item 3, plus upgrades to existing System Facilities identified in Exhibit A, Item 4, and additional Special Facilities subsequently identified and agreed upon, less the cost of Standard Facilities identified in Exhibit A, Item 2.

APPENDIX B
ATTACHMENT A

DESIGN CRITERIA
WILD GOOSE STORAGE PROJECT

1. General

1.1 This document describes the general requirements for the Standard Facilities and the Special Facilities to interconnect the Wild Goose Storage Field to the PG&E system. The criteria is complete as of the date above, but there may be changes to this document over the duration of the project due to operational, safety, and business needs.

2. Standard Facilities at Remote Facility

2.1 Custody transfer quality metering facilities for 10 MMscf/d to 80 MMscf/d (estimated minimum service pressure is 325 psi)

2.2 Design pressure, maximum allowable pressure: 800 psi

2.3 Tie-in to 12 - Inch Line 167

2.4 100 feet of 8-Inch pipe

2.5 Manual isolation/hot tap valve on branch tap

2.6 Cathodic protection and insulating flange

2.7 Filter

2.8 Engineering and project management

3. Special Facilities at Remote Facility

3.1 Custody transfer quality metering facilities for 10 MMscf/d to 240 MMscf/d. Metering shall be bi-directional with sufficient piping and valving to accurately measure injection and withdrawal flow rates.

3.2 Design pressure, maximum allowable pressure: 800 psi

3.3 Tie-in to 12 Inch line 167

3.4 100 feet of 18-Inch pipe

3.5 Manual Isolation/hot tap valve on branch tap

3.6 Automatic isolation block valve

APPENDIX B

Attachment A
(continued)

3.7 Monitor

3.8 Back pressure regulator

3.9 Automation fro remote operation

3.10 SCADA connection for remote monitoring

3.11 Odorizer

3.12 Cathodic protection and insulating flange

3.13 Civil work: Concrete pad, fence, shelter, etc.

3.14 Right of ways

3.15 Gas instrumentation: sulfur analyzer, gas chromatography, dew point analyzer

3.16 Engineering and project management

4. Special Facilities for Existing Facilities

4.1 Creed Station

4.1.1 Automate Valve 23 for remote operation

4.2 Rio Vista Y Station

4.2.1 Automate Valves 11 an 13 for remote operation

4.3 Meter Station

4.3.1 Install a new meter station to measure the flow west in Line 167

4.4 Hershey Junction

4.4.1 Install more accurate custody transfer for quality meter facilities to improve accuracy of load forecasts

4.5 GasTrace System

4.5.1 Program necessary changes for administration of Wild Goose nominations

APPENDIX B

Attachment A
(continued)

5. Reference

5.1 PG&E Tariffs, Gas Rules

5.1.1 Rule 2 -- Description of Services
5.1.2 Gas Rule 15 -- Gas Main Extensions
5.1.3 Gas Rule 16 -- Service Extensions

(END OF APPENDIX B)

APPENDIX C

NEGATIVE DECLARATION

STATE OF CALIFORNIA PETE WILSON, Governor

PUBLIC UTILITIES COMMISSION
505 [redacted]ESS AVENUE
SAN [redacted]NCISCO, CA 94102-3298

NEGATIVE DECLARATION

WILD GOOSE STORAGE, INC.
WILD GOOSE GAS STORAGE PROJECT
NATURAL GAS STORAGE FACILITIES
(A.96-08-058)

PROJECT DESCRIPTION

The California Public Utilities Commission is considering a Certificate of Public Convenience and Necessity for the construction of natural gas storage facilities by Wild Goose Storage, Inc. (WGSI) in Butte County. See Figure 1 for a project vicinity map. WGSI provided the Commission with a Proponent's Environmental Assessment (PEA) that was available for public review along with this document from March 31 to April 29, 1997. WGSI also prepared a series of environmental surveys and mitigation implementation plans that accompanied the PEA and were also available for public review. Attachment A to this document is a collection of the comments on the draft of this document and responses to those comments.

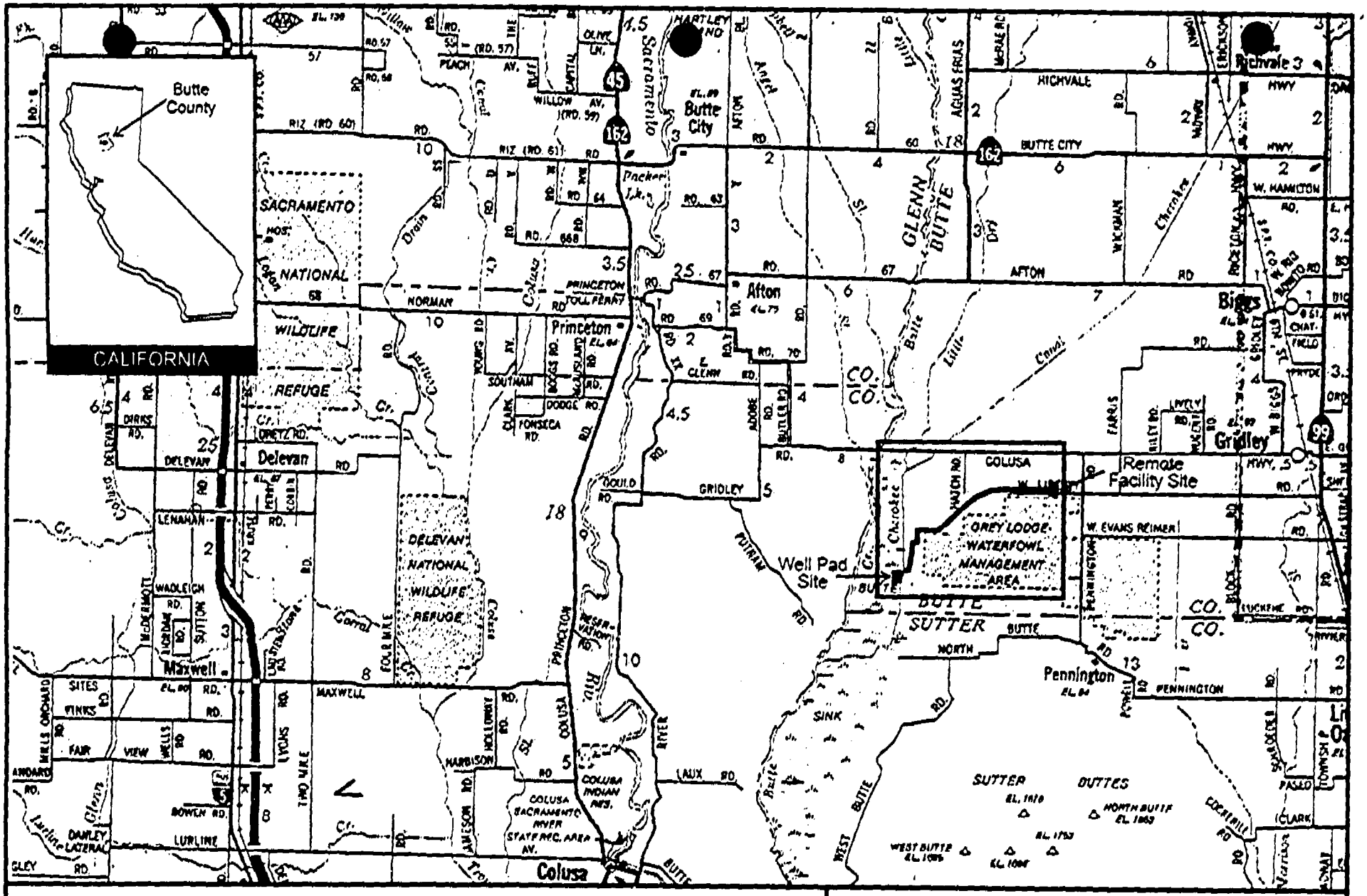
The Administrative Law Judge's Proposed Decision, which included this document as Appendix C, was mailed to parties in this proceeding for further comments. The comments of the parties (on the CEQA document) and the resulting changes to the Negative Declaration are discussed in Attachment B to this document.

Project Overview

Located in the southwest corner of Butte County, California, the Wild Goose Gas Storage Project involves development of a previously abandoned 137-billion-cubic-foot (Bcf) underground natural gas field for use in natural gas storage. The project Proponent is Wild Goose Storage, Inc. (WGSI), a wholly-owned subsidiary of Alberta Energy Company Ltd. Equipment and surface facilities required for natural gas storage are not extensive, requiring only a small amount of land to accommodate compressors, gas dehydration equipment and liquid handling systems. See Figure 2 for a project components map. As proposed, project development will require construction of:

- an interconnect to the 12-inch-diameter Line 167 of Pacific Gas and Electric Company's (PG&E's) Sacramento Valley Gas Transmission System.
- a 3-acre Remote Facility Site at West Liberty Road for metering, processing and compressing the gas.
- approximately 4 miles of 18-inch-diameter gas pipeline and 2-inch-diameter bi-directional produced water pipeline between the Well Pad Site and the Remote Facility Site.
- a 1.5-acre Well Pad Site at the location of the now-abandoned compression facility and well pad.

The Wild Goose Gas Storage Project is designed to move gas between PG&E's existing gas pipeline system and the storage field. During periods of low natural gas demand, gas will be injected into the storage field and during periods of high demand, the gas will be withdrawn from the storage field and returned to PG&E's pipeline system.



LEGEND

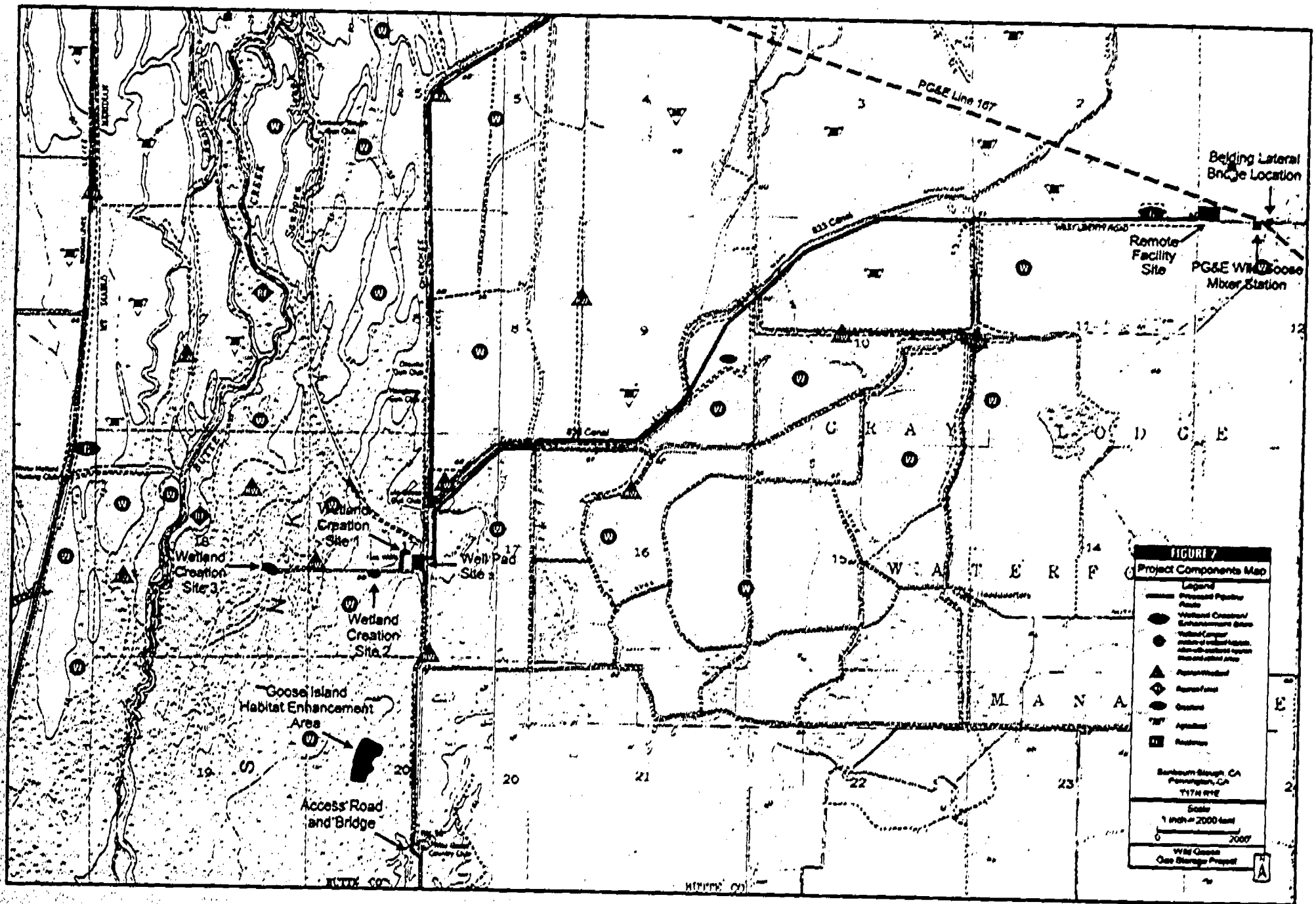
N

Proposed Pipeline Route

0 1 2 3 4 5

Scale in Miles

Figure 1
PROJECT VICINITY MAP
Wild Goose Gas Storage Project


PG&E Line 167
Beldin Lateral Bridge Location
Remote Facility Site
PG&E Wild Goose Mixer Station
Wetland Creation Site 1
Wetland Creation Site 3
Well Pad Site
Wetland Creation Site 2
Goose Island Habitat Enhancement Area
Access Road and Bridge
C R A Y
L O D G E
W A T E R F O
M A N A
FIGURE 7
Project Components Map
Legend
Scale
1 inch = 2000 feet
0
2000'
Wild Goose Gas Storage Project
N
A

- The Wild Goose Gas Field consists of 12 distinct underground porous rock "reservoirs" located at depths ranging from 2,550 to 3,450 feet below the ground surface. The individual reservoirs are separated from each other by the presence of impervious rock (shale) formations. These reservoirs have three primary characteristics that make the field technically attractive for conversion to gas storage:

  - An impervious dome-shaped "cap rock," which varies in thickness from 10 to 75 feet, serves as the top of the reservoir and traps the natural gas within the top portion of the dome.

  - The reservoir body is composed of highly porous and permeable sandstone rock within which the gas is actually contained.

  - The flanks of the reservoir are saturated with water and are in contact with large, deep aquifers that provide pressure support during gas withdrawal.

In California there are presently 10 active underground natural gas storage facilities in operation near primary market centers: 5 in the Los Angeles area (owned by Southern California Gas), 4 near San Francisco (3 owned by PG&E and 1 by Dow Corporation) and 1 in Santa Barbara (owned by Southern California Gas). Stringent standards set by the California Department of Conservation, Division of Oil, Gas and Geothermal Resources (DOGGR) govern underground construction and operation of natural gas wells and underground storage reservoirs to ensure safety and security of stored gas.

The Applicant for the Wild Goose Storage Project is:

Wild Goose Storage, Inc.
c/o Dean Cockshutt
3900, 421 - 7th Avenue, S.W.
Calgary, Alberta
Canada T2P 4K9

Field Operation

During injection operations, gas will flow from PG&E's Line 167 through the Remote Facility Site compressor and the project's 18-inch-diameter, bi-directional pipeline to the Well Pad Site for injection into the field. Typically, gas will be taken from the PG&E line at pressures ranging from 550 to 800 pounds per square inch gauge (psig) and injected into the reservoir at a maximum design surface pressure of 2,000 psig using an 8,900-horsepower, low-NO_X, turbine-driven compressor. This amount of compression will provide 80 million standard cubic feet per day (MMcfd) of firm injection service.

During withdrawal operations, gas will flow from the Well Pad Site back to the Remote Facility Site and into PG&E's Line 167. Wellhead surface pressures under withdrawal conditions will typically range from 1,500 psig to approximately 500 psig. Wells and facilities have been designed to provide 200 MMcfd of firm withdrawal service. The volume of daily, weekly and monthly injections and withdrawals will vary with customer demand, subject to the volume, deliverability and injection capabilities of the field. All injections and withdrawals will be operationally dispatched and controlled by project personnel working at the Remote Facility Site.

When gas is withdrawn from the reservoir, small amounts of water from aquifers connected to the storage reservoir may also be withdrawn with the gas. This water is termed "produced water" and is removed from the gas by a three-stage process. Stage one is at the Well Pad Site where separators remove most of the water. Produced water will be piped through a 2-inch-diameter pipeline to the Remote Facility Site for disposal. Stages two and three of produced water removal are conducted at the Remote Facility Site. One of the key advantages of the Wild Goose Gas Field is its classification as a "dry" gas field. As such, there are no hydrocarbon liquids (oil or gas condensate) accompanying the gas as it is withdrawn from the field, as may be the case in some oil and gas fields that have been converted to storage. Only the produced water, which is high in mineral concentration, must be separated and disposed.

If produced water quantities are small, the water will be periodically trucked to disposal site approved by the DOGGR. Off-site disposal would be by a hauler licensed by the California Department of Transportation and the California Highway Patrol, who would dispose of the water at a DOGGR-approved disposal/injection well, as is common practice in gas and oil field operations. Disposal vacuum truck service is provided for PG&E locally by Gomes Excavating, Inc. of Rio Vista, and produced water is disposed of in permitted injection wells in Solano County. Otherwise, produced water will be pumped into a deep disposal well, which may be located at the Remote Facility Site. Reinjection of produced water back to a suitable deep aquifer is a common practice subject to permitting by the DOGGR. The disposal well will be drilled and cased to a depth considerably below the base of fresh water in the area, into an aquifer containing greater than 10,000 mg/l total dissolved solids, as required by DOGGR in their disposal well permitting process.

Prior to full project operation, a 2- to 3-month start-up phase is required to inject "cushion gas" into the storage reservoir. Cushion gas is injected to re-establish the gas saturation, slowly depress the gas-water contact zone in the porous sandstone formations, and establish the base field pressure. Cushion gas becomes a permanent component of the reservoir and is not withdrawn. It will be owned by WGSI, unlike the working gas inventory, which will be owned by storage customers.

History of the Field

The Wild Goose Gas Field was discovered in 1951 and produced in excess of 100 Bcf of gas from 12 wells that tapped each of the 12 reservoirs. Gas from the field was routed to a compressor previously located at the proposed Well Pad Site. From here it was transported through a 8-inch-diameter collector pipeline to PG&E's Wild Goose Mixer Station on West Liberty Road. Production ceased at the end of primary depletion in 1988 and all wells were abandoned in accordance with DOGGR standards. Over time, excellent production and pressure records were kept, resulting in a very complete and high-quality database available for analyses. All 12 reservoirs are segregated by impervious shale layers, which allows individual zones to be converted to storage in response to market demand. For the storage demand identified in the near term, the L4 reservoir (second deepest zone) is considered to be the best candidate due to its appropriate size, high-quality rock and strong aquifer support.

Well Pad Site

Primary pressure regulation, water separation, metering and flow-rate control will occur at the Well Pad Site. The Well Pad Site is located in the extreme southwest corner of Butte County in an area that has historically been used for natural gas production facilities and waterfowl hunting clubs. This site is on private property owned by the Wild Goose Club, which also owns the majority of the surface rights above the gas field. The Well Pad Site supports moderately dense freshwater marsh habitat, limited open

water habitat, and a small amount of ruderal annual grassland (on the former compressor pad and the levee berm.) Although the freshwater marsh area is privately managed by the club, it is Army Corps Of Engineers (ACOE) jurisdictional wetland.

Results of extensive engineering and geologic studies indicate that current storage needs can be met with one vertical and five to nine horizontal wells in the L4 reservoir. This will utilize approximately 50 percent of the field's total storage capacity. The first well drilled will be vertical and will provide a rock core for cap rock and reservoir studies. The use of horizontal well technology for the remaining wells minimizes the total number of wells required. All wells will be used for both withdrawal and injection of stored gas.

The Well Pad Site will consist of 1.5 acres within an 8.5-acre lease tract. The remaining 7 acres will be available should project expansion ever occur. The 8.5-acre lease tract and a majority of the underground storage and mineral rights needed for the project have been secured from the Wild Goose Club. The balance of the needed storage rights have been secured from neighboring property owners. Actual acreage required for the stored gas is less than half of the total underground storage rights acquired, providing a large buffer zone around the project.

The Well Pad Site is accessed from the south via a private gravel road through the Wild Goose Club site. The club's existing approaches and bridge crossing the Cherokee Canal are not adequate for the length and weight of the pipeline construction and well drilling equipment. A new access road and bridge will be installed across the Cherokee Canal just south of the Wild Goose Club compound.

During the original gas production, the compressor and well pad occupied a one-quarter-acre area parallel and adjacent to the Cherokee Canal. Construction of the proposed Well Pad Site involves the re-establishment and expansion of a portion of this original well pad and compressor site to minimize surface disturbance. To lessen the effects of periodic flooding, the Well Pad Site will be elevated approximately 5 feet to the level of the existing access road and surrounded by an earthen perimeter berm. The site will then be covered with compacted aggregate and the berm will be landscaped with native vegetation to blend with the surroundings and to visually screen the facility from the nearby wildlife habitat and hunting areas. The design and appearance of the Well Pad Site must conform to the Wild Goose Club's specifications.

Depending on the final compaction ratio, approximately 22,000 cubic yards of fill material will be required to elevate the site and construct the berm. This fill material will be taken from four adjacent locations on Wild Goose Club property—three existing upland sites and one at Goose Island (See Figure 2). The upland areas are intended to be converted to wetlands to offset wetlands loss at the Well Pad Site.

Surface facilities will include the well heads with valves, a pipeline pig receiver (used to clean and inspect the pipeline connecting the Well Pad Site and Remote Facility Site), water separators, pressure control valves, emergency shutdown valves, and methanol and corrosion inhibitor storage tanks. All tanks containing hazardous materials will be constructed with dual containment systems. Approximately 500 gallons of methanol and 25 gallons of corrosion inhibitor will be temporarily stored and used on site. Methanol is used only during very cold weather and may be present at the Well Pad Site for less than two months during the winter. The tanks will be installed in 110 percent external containment cells, with the top vent above the historic flood level. The wellheads and associated piping, valves and tanks will be less than 3 feet high. Site lighting installed for security will operate on photo cells. A short whip-style

radio antennae will be installed for the remote operational monitoring and control communications link to the Remote Facility Site.

Remote Site Facility

While the facility site for this type of project would typically be located adjacent to the withdrawal and injection wells, a remote site is proposed to minimize potential environmental effects. The proposed site is presently a rice field located adjacent to PG&E's Line 167, which provides the project connection to the existing gas transmission system. In addition, West Liberty Road provides the all-weather road access required for the Remote Facility Site. A 5-acre tract for the Remote Facility Site will be purchased in fee or obtained under a long-term lease agreement. Initial site development will occupy approximately 3 acres, with the remaining two acres serving initially for temporary construction staging and material storage, and ultimately as a buffer area while it is held in reserve should project expansion ever occur.

All aboveground structures at the Remote Facility Site will be painted a flat, neutral color to minimize any visual impact. Site lighting, installed for security and nighttime operational activities, will operate on photo cells. The design, construction, operation and maintenance of the Remote Facility Site will be in compliance with the applicable specifications, standards and regulations established by the federal government and the industry.

Major components of the Remote Facility Site are (see Figure 3):

- *Gas Compressor:* A centrifugal natural gas compressor driven by a turbine engine producing 8,600 to 8,900 horsepower. Turbine exhaust emissions will be minimized by using best available control technology (BACT). The compressor will be housed in a noise attenuated, pre-engineered building. Exterior materials will be chosen to blend with surrounding land uses and building styles. The building will be approximately 75 feet long, 75 feet wide, and 35 feet high, and large enough to provide sufficient space for warehousing equipment and repair parts.

- *Produced Water Storage and Disposal:* Wellhead separators will remove the majority of produced water at the Well Pad Site. Produced water will be piped to the Remote Facility Site in a 2-inch-diameter pipeline buried along side the 18-inch-diameter gas pipeline. Any water remaining in the gas stream will be removed at the Remote Facility Site by the second stage inlet separator. Produced water will be stored temporarily at the Remote Facility Site in four aboveground 21,000-gallon tanks with 110 percent external containment. The tanks storage enclosure will be approximately 50 feet long, 50 feet wide, and 25 feet high. If produced water quantities are small, the water will be periodically trucked to an approved disposal site.

- *Dehydration Units and Reboilers:* Two dehydration units consisting of triethylene glycol/natural gas contactor towers and two natural-gas-fired glycol reboilers. The gas contactors will be approximately 30 feet high. Vapors from the glycol still will be flared to reduce emissions. The flame will not be visible since it will be contained within an incinerator stack approximately 30 feet high.

  Gas Odorant System: Gas in PG&E's transmission system is odorized with methyl mercaptan for safety. The Remote Facility Site will be equipped with a trim odorant system to supplement odorant lost during storage and withdrawal.

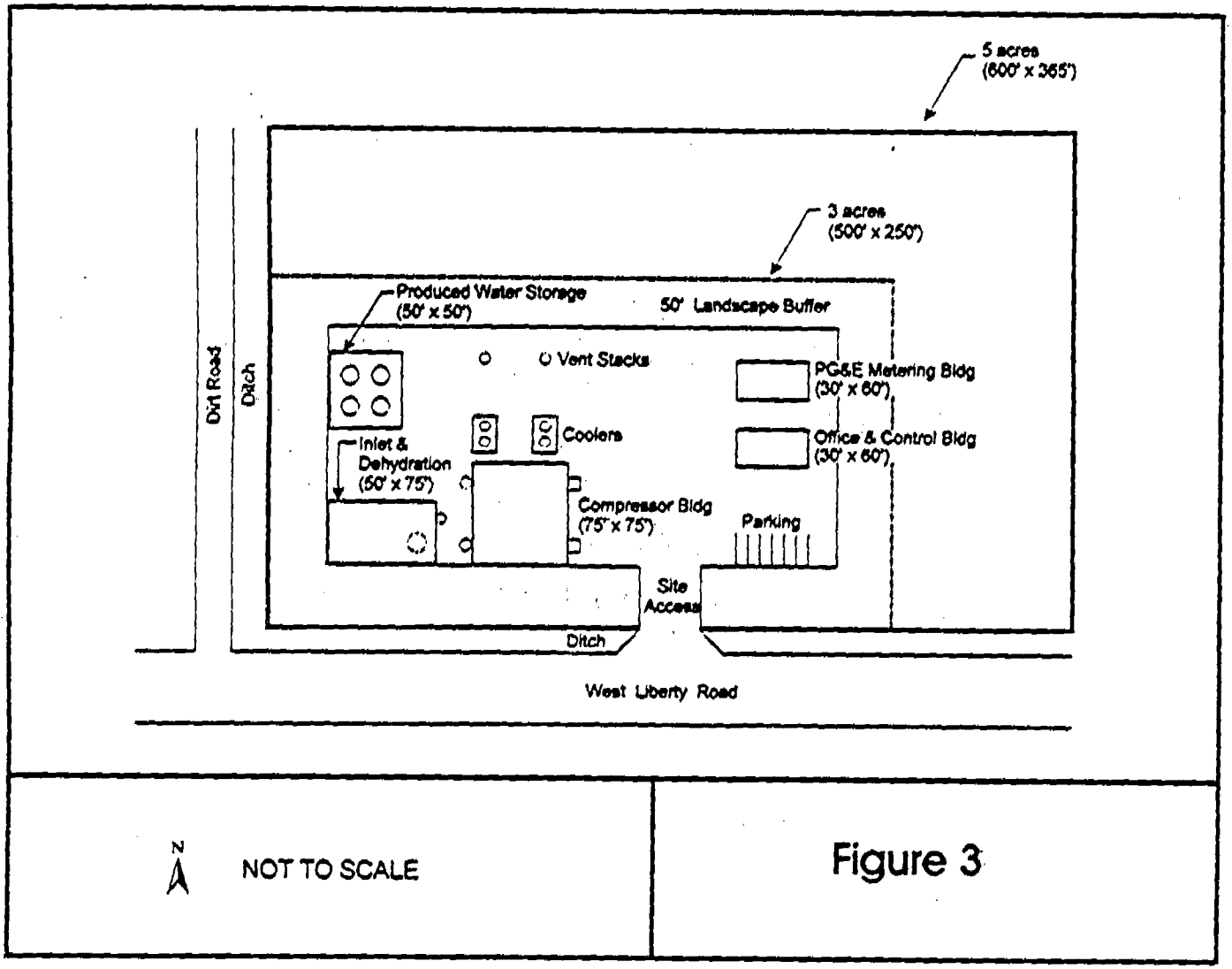

5 acres
(600' x 365')
3 acres
(500' x 250')
Produced Water Storage
(50' x 50')
50' Landscape Buffer
Dirt Road
Ditch
Vent Stacks
PG&E Metering Bldg
(30' x 60')
Coolers
Office & Control Bldg
(30' x 60')
Inlet &
Dehydration
(50' x 75')
Compressor Bldg
(75' x 75')
Parking
Site
Access
Ditch
West Liberty Road
N
NOT TO SCALE

Figure 3

- *Gas Coolers:* Gas must be cooled before it enters the discharge header to Line 167 or the Well Pad Site to reduce the thermal stress on the pipeline and valves. The coolers are approximately 15 feet high and are driven by electric motors.

- *Gas Scrubbers:* One gas scrubber vessel will remove fine particulate matter (salt-coated sand and bits of formation rock) from the gas to protect the internal surfaces of the equipment.

- *Pressure Control Facilities:* Pressure control valves at the Remote Facility Site will regulate the total gas flow entering the Remote Facility Site during withdrawal from the storage field. Each individual well at the Well Pad Site will be equipped with a pressure control valve to control gas flow.

- *Relief Vents:* Two emergency shutdown relief vents will be used to vent pressurized gas to the atmosphere from pressure relief valves following an emergency blowdown, or a blowdown required for pipeline maintenance activities. The relief vents have not yet been designed, but may consist of horizontal cylinders, approximately 36 inches in diameter and 12 feet long, with a vertical exit pipe. Baffles will reduce blowdown noise to acceptable levels.

- *Waste Oil Storage Tank:* Oil wastes include approximately 1,000 gallons annually from maintenance of the compressor and emergency generator. These wastes will be stored temporarily in an aboveground tank pending off-site shipment to permitted treatment, storage or disposal facilities by a licensed hauler. The 1,000-gallon tank, approximately 15 feet in height, will be located within concrete containment walls providing 110 percent of the volume of the tank. The tank and containment walls will be located near the dehydration units and compressor building.

- *Glycol Supply Tank:* A 1,000-gallon aboveground tank, approximately 15 feet in height, with 110 percent containment will supply make-up glycol for any minor amounts lost as vapor in the glycol reboilers. The glycol-supply tank will be located near the compressor building.

- *Generator:* To ensure Remote Facility Site has continuous power, a natural-gas-fueled, 500-horsepower back-up generator will be activated if the local PG&E power supply is interrupted.

- *Office Building:* A single-story office/control building for the operators and maintenance workers will be architecturally similar to the compressor building. The building will be approximately 30 wide, 60 feet long, and 16 feet high.

- *Radio Antennae:* A radio antennae will be used for remote safety and operations monitoring at the Well Pad Site and to provide operational data to PG&E's gas control center. The antennae will be mounted on a slender pyramid-shape tower, reaching a total height of approximately 30 feet.

- *Utilities:* Natural gas will be used as the fuel for the compressors, standby generator and glycol reboiler. Electricity from the existing 12 kV distribution line along West Liberty Road will be used for gas coolers, pumps, site lighting, office lighting, heating/ventilation/air conditioning system, air compressors and other miscellaneous equipment. Pacific Bell will provide phone service from their existing cable along Pennington Road. Potable water for the Remote Facility Site will be supplied from an on-site water well. Sanitary wastewater will flow to an approved on-site septic system and leach field. The entire site will be enclosed by a 6-foot-high chainlink

fence with a one-foot barbed wire extension. The perimeter will be landscaped to screen the facility and minimize its visibility.

- *Metering:* Custody transfer gas metering will occur at a PG&E-operated metering building located within the perimeter of the Remote Facility Site. The building will be approximately 30 feet wide, 60 feet long, and 20 feet high. Equipment will consist of bi-directional flow meters and electronic communication equipment. PG&E will own and operate the equipment.

- *Staffing:* All 10 project operations and maintenance staff will be stationed at the Remote Facility Site. Up to 5 full-time staff will be on-site during the day shift, seven days a week. Operations and maintenance staff will include:

  - Plant Superintendent/Manager
  - Secretary/Clerk
  - Control Room Operator(s)
  - Electrical/Instrumentation Maintenance Technician
  - Mechanical/Equipment Maintenance Technician
  - Reservoir/Production Technician

  Because these positions are specialized and usually require formal training, recruiting will be conducted locally for people with engineering, mechanical or technical backgrounds and experience.

Connecting Pipelines

The Remote Facility Site will be connected to the Well Pad Site by a 18-inch-diameter, bi-directional-flow gas pipeline of approximately 4 miles, with a maximum operating pressure of 2,000 psig. A 2-inch-diameter water disposal pipeline will also be installed for transporting produced water to the Remote Facility Site for disposal. Both pipelines will be buried in a common trench with a minimum cover of 3 feet. The depth of the pipelines will be increased to provide up to 5 feet of cover in rice fields, as may be required in easement agreements with local landowners. The pipeline will require approximately 12 acres of permanent easement (30 feet wide) and approximately 18 acres of temporary construction working strip (45 feet wide) on private lands. Approximately one mile of the pipeline route will be in the County road right-of-way in West Liberty Road. The route of the pipelines is shown on Figure 2.

Construction Requirements

- *Staging:* The 5-acre pad for the Remote Facility Site will be constructed following harvest in mid September, 1997, with construction of the 3-acre station area beginning the following spring in February, 1998. The perimeter 2 acres will be used for staging and material storage during station and pipeline construction. Construction staging and minimal material storage during the construction of the well pad and the pipeline in the wetlands will use an existing upland area adjacent to the proposed Well Pad Site.

- *Access:* Existing paved, graveled and dirt roads in the agricultural and waterfowl management areas will be used to gain access to the pipeline right-of-way. Once the right-of-way is cleared, pipeline construction equipment and vehicles will use the right-of-way to travel along the pipeline. Since the existing bridge crossing the Cherokee Canal at the Wild Goose Club is inadequate to support anticipated construction traffic, a new access road and bridge will be

constructed at the south end of the club compound. Heavy equipment for the construction of the Remote Facility Site will be brought in on West Liberty Road via the Colusa Highway and Pennington Road. The existing bridge on West Liberty Road is presently weight-restricted and will be reconstructed to handle standard maximum weight loads.

- *Construction Schedule:* Subject to project approval, construction of the project is anticipated to begin in July of 1997. About four weeks will be required to construct the pad and berm at the Well Pad Site, and about two weeks to construct the pad for the Remote Facility Site. Construction of the pipeline between the Well Pad Site and the Remote Facility Site is expected to take approximately 4 weeks, with 2 weeks of preconstruction activities occurring in early 1998. Drilling the wells at the Well Pad Site is expected to take four months and up to six months will be required to construct the Remote Facility Site. Construction will occur 10 hours per day, five or six days per week depending on the construction schedule for the particular component.

  The schedule includes the following specific construction constraints developed by the Applicant and imposed by environmental and land use issues in the project area:

  - As mitigation to avoid impact to the Giant garter snake, trenched crossings of ditches conveying water cannot occur during the months of October through April while the snake is hibernating.

  - As mitigation to avoid increased impacts to wetland vegetation and soils in the Butte Sink area, construction should occur during the driest months of mid-June through mid-August.

  - As mitigation to avoid impacts to the waterfowl management and hunting activities in the hunt clubs, construction cannot occur during the months of mid-October through January.

  In order to construct the pipeline in the rice fields during the active farming period, the construction working strip will be isolated from the adjacent fields and not flooded. Installation of the temporary rice check will be performed by the rice farmers during their normal field preparation activities in February and March 1998.

- *Construction Work Force:* During peak construction periods, approximately 120 workers will be in the project area. The estimated work force necessary for construction of each facility is composed of the following labor crafts:

  - Pipefitters
  - Welders
  - Electricians
  - Instrument men
  - Equipment operators
  - Carpenters
  - Iron workers
  - Laborers

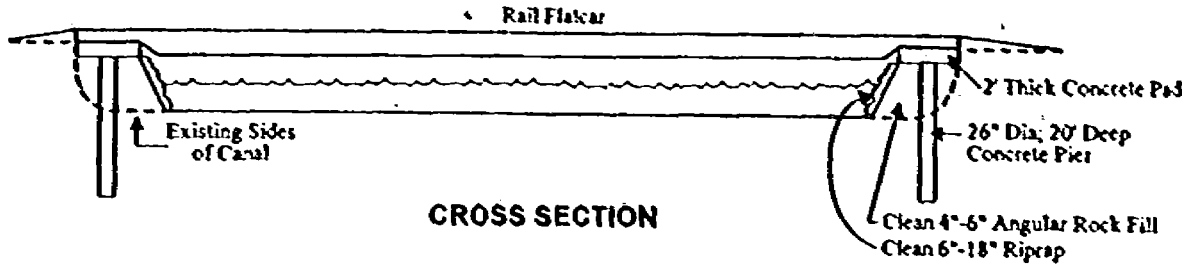
Construction Methods

- *Well Pad Construction*
  The fill sources for the Well Pad Site berm and elevated pad will be from three adjacent wetland creation sites and a habitat enhancement area on the Wild Goose Club. Scrapers, loaders, dozers, graders and dump trucks will be used to first remove and stockpile the topsoil, then to excavate subsoil material at selected locations to predetermined depths to create and enhance wetland habitat. The topsoil will be respread following construction. All excavation will be overseen by the club manager, and completed during the dry period in the Butte Sink. The excavated soil will be transported by the scrapers and dump trucks to the pad site via existing access roads.

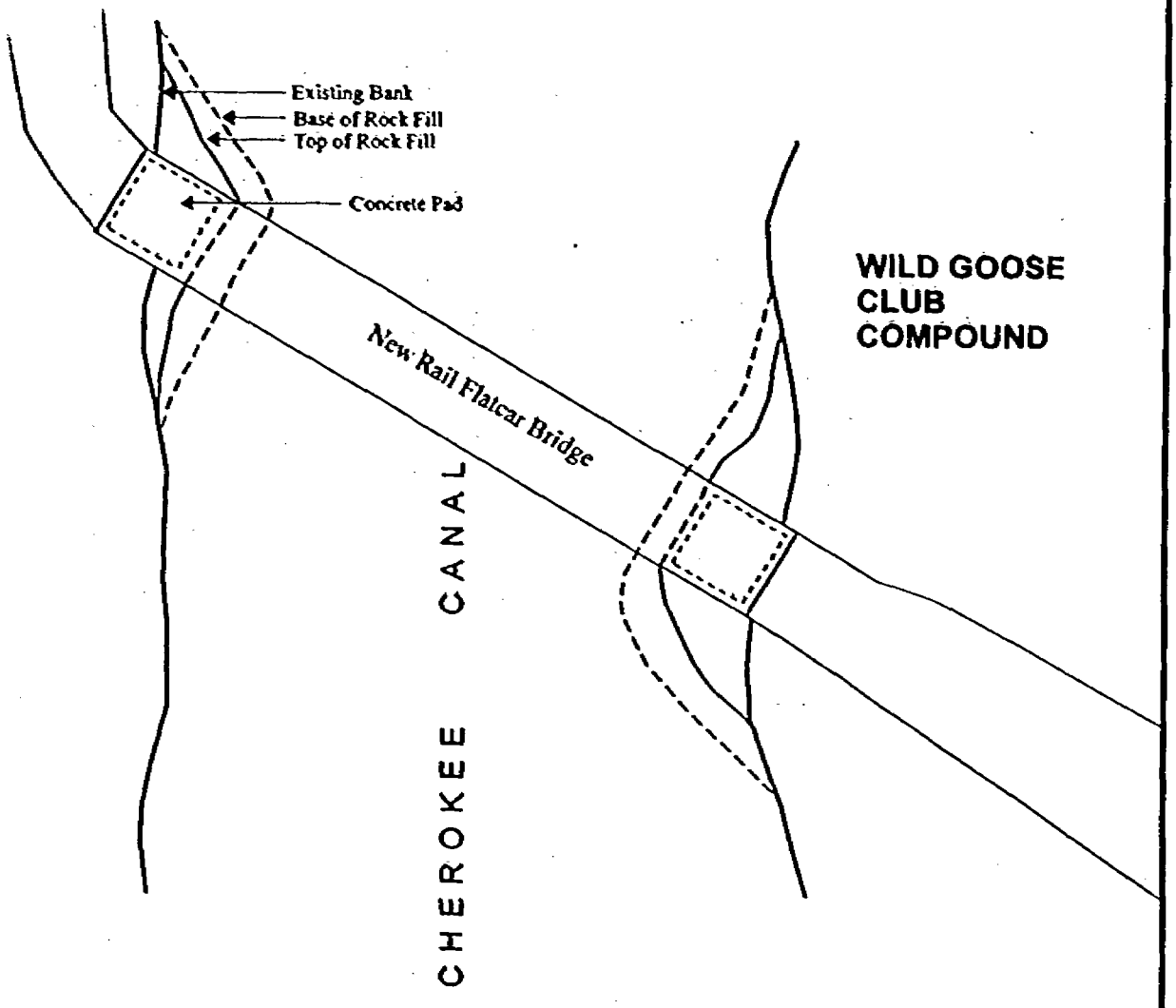
  Once the existing pad site has been cleared of vegetation down to mineral soil, 5 feet of fill will be placed to elevate the pad. Loaders and graders will place the fill in 6- to 12-inch lifts, watering and compacting each successive lift with a sheep's foot or wobbly wheeled roller prior to placing the next lift. Once the design compaction, grade and elevation for the pad is reached, an earthen perimeter berm will be installed and compacted around the site. The berm will be placed with at a 3 to 1 side slope, and will be 3 feet high on the west, south and east sides, and 4 feet high on the north side to accommodate habitat for the threatened giant garter snake. Finally, an impermeable geotextile liner will be installed over the pad and covered with 12 inches of crushed, compacted aggregate to create a stable surface for the operation and maintenance vehicles. Access roads will also be covered in crushed, compacted aggregate. Drainage structures and pumps will be installed and the final grade of the fill and the gravel surface will be sloped to drain according to a grading and drainage plan. All facilities to be installed at the Well Pad Site will be designed to withstand periodic inundation. If needed, gas handling equipment foundations may also include pilings to ensure stability.

- *Access Road and Bridge*
  The new access road and bridge will be installed immediately adjacent to the south end of the club compound (see Figure 2). The access road will be approximately 290 feet long between the existing Wild Goose Club entrance road and the canal, and approximately 160 feet long between the west side of the canal and the existing wetland management road. The access road will be constructed by clearing the existing vegetation and topsoil, placing a layer of clean fill material or road base to elevate the road slightly above the adjacent wetlands, and then covering the road with gravel. The organic topsoil stripped as part of initial clearing will be placed on the sloped edges of the road to facilitate rapid revegetation of the road shoulders.

  A 90-foot-long railroad flat car bridge will span the canal (see Figure 4). The bridge foundations include the placement of clean fill on the edges of the Cherokee Canal, with the base of the fill extending slightly into the channel. The fill will consist of clean angular rock, 4 to 6 inches in size. Once the fill is placed and compacted to the proper dimensions and height, 6-to 18-inch clean rip-rap rock will be placed over the fill to protect it from the current. Two or three support columns will be drilled into the fill. Sixteen-inch diameter steel pipes will be inserted into the drill holes to a depth of 20 feet and filled with concrete. A 2-foot-thick reinforced concrete pad will be poured on top of the columns to support the flatcar at its load-bearing points. The flatcar would be set on the foundations by a crane. No concrete will come into contact with the water in the canal.



CROSS SECTION



PLAN VIEW

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Figure 4 (Revised)
ACCESS BRIDGE
Wild Goose Gas Storage Project
Butte County, CA

1/97 Essex Environmental

- *Well Drilling and Pad Development*
  The well drilling rigs will operate 24 hours per day, 7 days per week while each well is drilled, with downtime for moving the drilling rig to the next well position. The drilling rig will be at the site up to 4 months while drilling the injection and withdrawal wells. All fluids used in the drilling operation will be contained in rig tanks. Fluid circulation systems are closed, resulting in no discharges. Off-site disposal of drilling mud solids would be by a licensed hauler and would be disposed of at an approved landfill disposal site well as is common practice in gas and oil field operations. Disposal service is available locally from Mervin G. Clark Construction of Sutter, with disposal at the Fulton Reclamation Facility in Orland. The impermeable geotextile liner described above will contain any produced water or other contaminants spilled during well-drilling operations. Controlled drainage of the site will be via a 6-inch-diameter drain pipe. Operation of the drain pipe will be as described in Section 9: Hydrology of the Applicant's PEA.

  Once the wells are in place, the ancillary piping, water separators, methanol and corrosion inhibitor tanks, and valve and monitoring equipment will be installed and tested.

- *Remote Facility Site Construction*
  The 5-acre tract will be filled, leveled and compacted with approximately 18 inches of earth to bring the subgrade up to the elevation of the adjacent rice field dikes. Fill material will likely be obtained from rice field leveling in the immediate area. The site will be established as part of the initial construction activities in September, 1997. In the second quarter of 1998, the construction of the aboveground and underground facilities will proceed with the remaining site preparation of the 3-acre portion of the site. Approximately 10 inches of crushed aggregate will be spread and compacted to create a stable surface. Drainage structures will be installed, the final grade of the gravel surface will be sloped to drain, and perimeter fencing will be installed. Site development will continue with the civil and structural work, mechanical and piping work, building erection and fabrication, electrical and instrumentation, and finally, landscaping, testing and cleanup.

- *West Liberty Road Bridge Reconstruction*
  In response to discussions with the Butte County Public Works Department regarding the Belding Lateral bridge weight restrictions on West Liberty Road, the county has recommended upgrading the weight capacity of the bridge by reconstructing the bridge support structure. This reconstruction will consist of removing the existing decking and I-beams, and installing larger I-beams at closer spacing on the existing abutments. This work will not affect the canal banks or bottom, and no work will be done in the water. New wood decking will be installed and the gravel surface will be replaced to blend with the existing roadway. The county estimates it will take its crews approximately one week to 10 days to complete this work, during which time the road will be closed to traffic. Affected property owners on West Liberty Road will be provided access around the construction site during bridge construction. Details of construction and traffic mitigation measures will be provided in the *Transportation Management Plan.*

- *Pipeline Construction Techniques*
  The pipeline will be constructed using a combination of trenching and auger boring. The construction right-of-way, within which all construction activity must occur, will be 75 feet wide except at bored crossings where additional space (50 feet by 150 feet) is needed on one side for the bore pit.

As noted above, pipeline preconstruction work is required for the portion of the route in rice fields. In order to construct in the rice fields during the active farming period, the construction working strip will be isolated from the adjacent fields to keep it from flooding. Since the route through rice fields follows the field edge, this will be accomplished by installing a new temporary rice check 75 feet away from and parallel to the field edge. Installation of the temporary rice check will be performed by the rice farmers during their normal field preparation activities in February and March 1998. This will allow the adjacent fields to be flooded and planted, but the isolated construction working strip will remain dry and un-farmed when construction begins in the summer. The temporary rice checks will be removed after the fields have been drained in August or September 1998, and the field will be surveyed and regraded to its preconstruction level and contour. As an alternative to boring some of the smaller ditches, rigid culverts may be installed in ditches across the full width of the construction right-of-way during this preconstruction work. Sand bags will be used to seal around the ends of the culvert, thereby isolating the flowing water from the work area while the crossing is trenched during summer construction. Culverts will be installed in such a way to ensure that no disturbance to channel or ditch banks occurs during the giant garter snakes' dormant period.

The trenching procedure is a sequence of the following eight operations (see Figure 5):

Clearing and Grading
Clearing and grading prepares the right-of-way by removing any obstacles or debris, then removing the topsoil and segregating it on the edge of the right-of-way for redistribution following construction. Clearing will be minimized and vegetation will be cut or trimmed whenever possible.

Trenching
Trenching is conducted by bucket wheel ditchers or tracked backhoes. The excavated subsoil is maintained in a separate windrow to be used as trench backfill following installation of the pipe. The pipeline trench is a minimum of 27 inches wide (1.5 times the pipe diameter) and a 54 inches deep to allow 3 feet of cover over the pipeline, or 78 inches deep where 5 feet of cover is needed. At culverted ditch crossings, back hoes will excavate under the culverts, and the culvert will span the trench until the trench is backfilled and the ditch is restored.

Stringing
Stringing of pipe is completed by trucking pipe lengths to and along the right-of-way and unloading with a crane or cat with a side boom.

Pipe Installation
Pipe installation includes any bending for horizontal or vertical angles in the alignment, welding the pipe segments together, coating the joint areas with an epoxy-based coating to prevent corrosion, then lowering the pipe into the trench with side booms.

Backfilling
Backfilling the trench typically uses the subsoil previously excavated from the trench, then the topsoil is re-spread to return the surface to its original grade. In agricultural areas, the backfill is tested to ensure it is replaced at the same compaction density as the adjacent undisturbed soil.

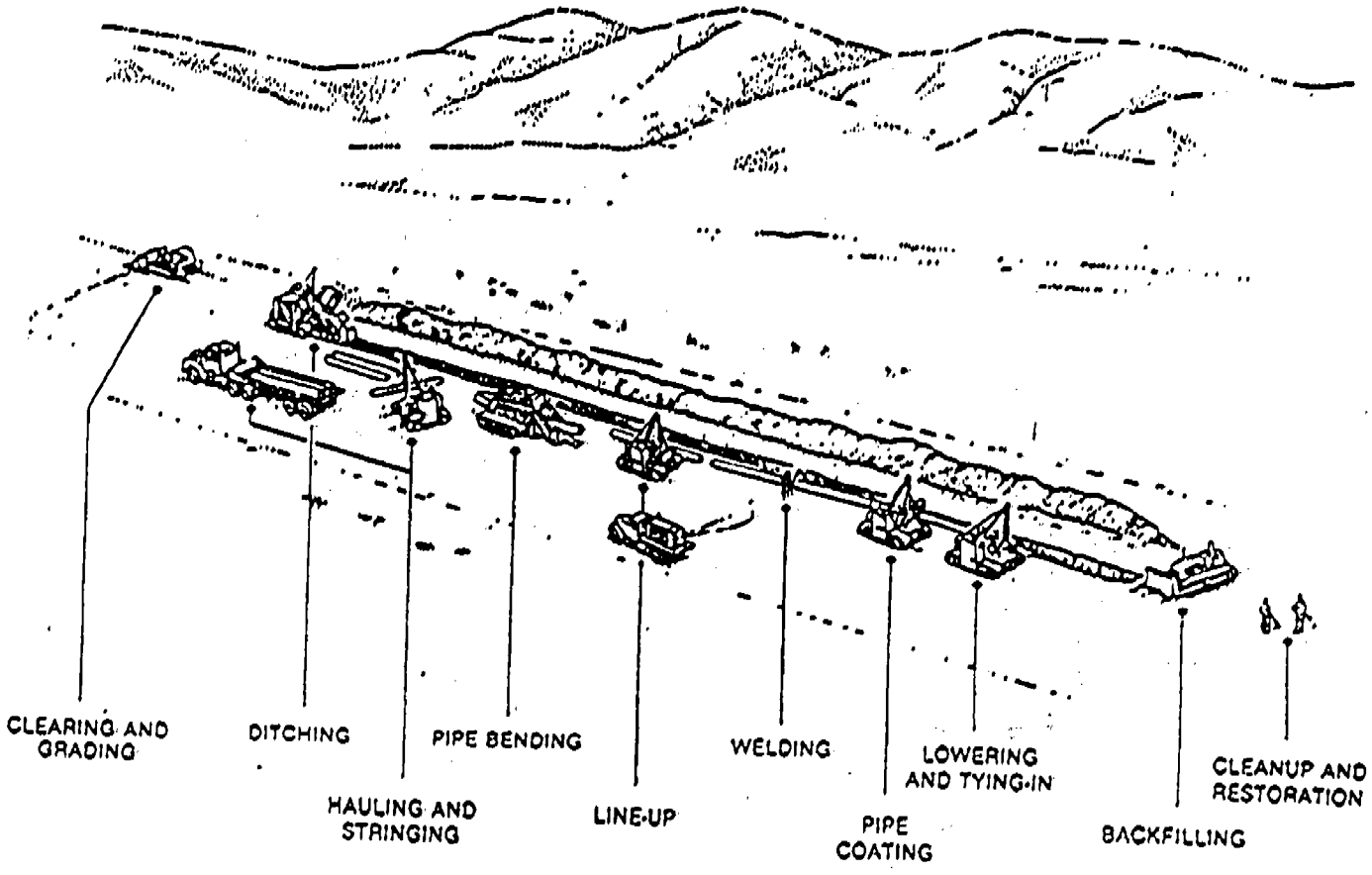

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Figure 5
TYPICAL RURAL CONSTRUCTION SPREAD
Wild Goose Gas Storage Project

Hydrostatic Testing
Hydrostatic testing is completed by filling the pipeline with water, increasing the pressure to 125 percent of the maximum operating pressure, and holding the pressure for a period of time. The water will be drawn from local sources and returned to these sources as described in Section 9: Hydrology.

Cleanup
Cleanup and restoration of the surface along the right-of-way and any temporary work spaces involves removing any construction debris, final grading to the finished contour and revegetation if needed. A slight crown is retained over the top of the trench in non-agricultural areas to allow for settling. At trenched crossings, any construction culverts will be removed and the irrigation canal or ditch channel will be restored to preproject condition.

Commissioning
Commissioning is the drying of the inside of the pipeline, purging air and filling the pipeline with natural gas.

Auger Boring
Pipeline crossings of the larger canals will likely be constructed using auger boring techniques. This technique involves excavating a bore pit on one side of the crossing and a receiving pit on the other side, and utilizes an auger and power unit mounted on rails. The power unit drives the auger inside a heavy wall pipe casing segment until the power unit reaches the leading edge of the bore pit. The power unit is disconnected from the auger, backed up, and a segment of the gas pipe is welded to the casing segment already driven. Additional auger and gas pipe segments are added successively until the bore reaches the other side of the crossing in the receiving pit. Soil excavated by the auger is removed from the pit by a backhoe. Once through, the power unit backs out the auger one segment at a time, leaving the gas pipeline in place under the crossing. In the receiving pit, the casing segment is removed for use at the next crossing.

Operation and Maintenance Procedures

The PEA for the project discusses the following operation and maintenance procedures. These procedures have been evaluated by the Commission for their potential environmental impacts, and any impacts have been mitigated to a less-than-significant level.

- General System Monitoring and Control
- Well Pad Site Monitoring and Control
- Remote Facility Site Monitoring and Control Systems
- Control Room Technology
- Equipment Operation
- Facility Inspection and Survey
- Pipeline Inspections
- Well Pad Site Inspections
- Remote Facility Site Inspections
- Maintenance and Repair Procedures
- Scheduled Site Maintenance
- Parts and Materials

Possible Future Plans

Because the Wild Goose Gas Storage Project is the first independent gas storage provider in California, future demand projections for such a service are very qualitative. The proposed project scope is based on the reasonably foreseeable projected gas storage needs up to the year 2000.

The proposed current level of development constitutes an initial phase of project development, representing approximately 50 percent of total field storage capacity. Although the gas field has this additional storage capacity, WGSI has indicated the project will be economically viable as currently configured, and has no reasonably foreseeable plans to expand the project. However, as market conditions warrant, expansion of the project may be proposed in multiple additional phases.

In order to fully develop the storage capacity of the field, additional wells would be needed at the Well Pad Site, and the project would need to either (1) connect to PG&E's backbone gas transmission lines 400 and 401 west of Interstate 5 near Delevan in Colusa County, or (2) establish a second connection to PG&E's gas transmission pipeline system elsewhere in the general area. Additional compressors and piping at the Remote Facility Site would also be required to handle any significant increase in capacity. There would be sufficient space at the Well Pad and Remote Facility lease areas to accommodate such an expansion, and WGSI indicates that full expansion of the gas storage capacity would involve no more than an approximate doubling of the physical facilities required for the current project. The environmental issues in the possible future expansion will be similar in character and scale as with the project currently described; i.e., it would likely result in similar types of impacts and mitigations that would occur on the proposed Wild Goose project and that have occurred on similar recent projects. Expansion of the use of storage capacity should not involve any new or unavoidable groundwater, water quality or geologic issues.

Project Termination

WGSI currently has no plans to abandon any part of the proposed facilities. For certain project assumptions discussed in this document, a facility life of 30 years has been used, but with proper maintenance the facility will last considerably longer. Should the pipeline ultimately be abandoned, the pipe would either be abandoned in place or removed and salvaged. Pipe abandoned in place would be capped in compliance with regulatory requirements. Pipe installed under water crossings and road ways would generally be abandoned in place. Should segments of the pipeline be removed, the surface would be restored and rehabilitated. The Remote Facility Site would be dismantled and salvaged and the site rehabilitated per Butte County ordinance requirements in effect at the time. Concrete and pavement would be broken up and disposed of at an approved disposal area, or left in place. The Well Pad Site would be closed out by abandoning the wells per DOGGR requirements and the site would be rehabilitated.

PERMIT REQUIREMENTS

Implementation of this project will require approval of the Certificate and other individual public agency permits. If the responsible agencies find that additional or modified mitigation measures are necessary to mitigate impacts to insignificance, all such mitigation measures shall be implemented and complied with by Wild Goose. Table 1 is a list of the permits now known to be required for the Wild Goose Gas Storage Project.

Table 1
Permit Requirements for the Wild Goose Gas Storage Project

Permits	Agency	Jurisdiction/Purpose
FEDERAL AGENCIES		
Section 404 Individual Permit	Army Corps of Engineers	Waters of the U.S. and EPA lead agency
Section 7 Consultation	U.S. Fish and Wildlife Service	Threatened and Endangered Species Biological Opinion (through Corps review process)
Section 106 Review	Advisory Council on Historic Preservation	Historic Properties Management Plan (through Corps review process)
State Agencies		
Certificate of Public Convenience and Necessity (CPCN)	California Public Utilities Commission	Overall project approval and CEQA lead agency
Gas and Disposal Well Installation	Division of Oil, Gas & Geothermal Resources	Natural gas storage and produced water disposal well
NPDES General Permits and Section 401 Certification/Waiver	Regional Water Quality Control Board	Industrial and construction storm water, hydrotest water discharge, and water quality certification/waiver
Stream Crossing Agreements	Department of Fish & Game	Waterways and wildlife habitat areas
Endangered Species Consultation	Department of Fish & Game	Biological Opinion (through CEQA review process)
Consultation	State Historic Preservation Office	Cultural resources management (through CEQA review process)
Local Agencies		
Road Encroachment Permit	Butte County Public Works	Pipeline installation in West Liberty Road and driveway access to the Remote Facility Site
Domestic Well and Septic System Permit	Butte County Environmental Health	Domestic water supply well and septic tank and leach field at the Remote Facility Site
Hazardous Material Release Response Plan	Butte County Environmental Health	Storage, handling and disposal of hazardous materials and wastes
Building Permits	Butte County Development Services	Building permits for structures and buildings
Authority to Construct/ Operate	Butte County Air Quality Management District	Air emission reduction and monitoring
Encroachment Approval	Reclamation District #833	Crossing District canals and ditches

ENVIRONMENTAL DETERMINATION

An Initial Study (attached) was prepared to assess the project's potential effects on the environment, and the respective significance of those effects. Based on the Initial Study the Wild Goose Gas Storage Project has the potential to cause significant adverse effects on the environment in the areas of:

- Land Use and Planning
- Geological Problems
- Water
- Air Quality
- Transportation/Circulation
- Biological Resources
- Hazards
- Noise
- Public Services
- Utilities and Service Systems
- Aesthetics
- Cultural Resources
- Recreation

The project will have less than a significant effect in the areas of:

- Population and Housing
- Energy and Mineral Resources

In response to the Initial Study, the Commission should incorporate the mitigation measures in Table 2 into the WGGSP so that the project will not have any significant adverse effects on the environment. Table 2, Mitigation Monitoring Plan, is organized by the resource topics of the CEQA checklist. The table contains a summary of impacts in each resource area and the mitigation measures that should be adopted to reduce the impacts to a less-than-significant level. These mitigation measures are drawn from the analysis of the Environmental Checklist.

The Wild Goose Gas Storage Project Mitigation Monitoring Plan (MMP) has been developed through an independent environmental review by Commission staff and consultant's of Wild Goose Storage, Inc.'s Proponent Environmental Assessment and related documents. The MMP contains mitigation measures of four types as noted in the table:

1. Developed by WGSI for the project and accepted by the Commission without modification.

   Example: **Mitigation Measure BR 5Ta**
   To minimize impacts to water quality and wildlife, construction activities in wetlands will coincide with the driest period - approximately mid-June through mid-August. (Applicant's Measure B-1)

2. Initially developed by WGSI, but modified by the Commission.

   Example: **Mitigation Measure BR 5Tb**
   To *avoid additional indirect wetland impacts, the edges of construction right-of-way in each area shall be clearly staked and surveyed in at a minimum of 100 foot intervals before start of construction in that area. (Applicant's Measure B-2, Revised)*

3. Developed by the Commission to address a specifically identified impact.

   Example: **Mitigation Measure BR 1b**
   Before start of project construction, clay flat areas supporting populations of Little mouse-tail shall be clearly marked by a qualified botanist as exclusion zones on construction plans and shall be marked in the field with orange fencing. Project activities will avoid these zones. (No Applicant numbered measure.)

4. General and specific implementation plans developed by WGSI as part of their overall mitigation program.

   Example: *B-8 Initiate cleanup activities immediately following trench backfilling.*

In addition, based on the results of the Initial Study, there is a reasonably foreseeable potential for significant impacts associated with the full development of WGSI's storage capacity. Therefore, if WGSI seeks to expand or modify its physical facilities to the extent that discretionary approval by a public agency is required, it shall consult with the Commission, so that the Commission may ensure that the appropriate environmental analysis of the impacts of WGSI's specific proposal may be performed.

Copies of all other permits required by the federal, state, bi-state, and local agencies will be submitted to the Commission's Mitigation Monitor as they are completed. Construction may not begin in any individual jurisdiction until the subject permit is obtained, and/or there are other enforceable agreements in place with the respective jurisdiction. With implementation of the mitigation measures listed in Table 2, and the directive that all other permits will be submitted upon approval, the Commission should conclude that the proposed project will not have one or more potentially significant environmental effects. To assure these measures are implemented, the Commission should direct that a Mitigation Monitor be appointed and the Mitigation Monitoring Plan be adopted prior to the approval of the Certificate.

Douglas M. Long, Manager
Decision-Making Support Branch
Energy Division
California Public Utilities Commission

June 23, 1997
Date

Table 2
Proposed Wild Goose Gas Storage Project
Mitigation Monitoring Plan

Impact	Mitigation Monitoring Procedure	Timing	Monitoring Responsibility	Reporting Activity	Effectiveness Criteria
LAND USE AND PLANNING					
Impact LU1 : *Construction of pipelines in agricultural areas will result in potential impacts to rice crop production on 15 acres.*	**Mitigation Measure LU1a** *All pipeline construction will be completed as one continuous construction activity between mid-June and mid-August, 1998. In order to construct in the rice fields during this time frame, the construction working strip will be isolated from the adjacent fields and no rice will be planted. This will be accomplished by installing a new temporary rice check 75 feet away from and parallel to the field edge. Installation of the temporary rice check will be performed by the rice farmers during their normal field preparation activities in February and March, 1998. This will allow the adjacent fields to be flooded and planted, but the isolated construction working strip will remain dry and unfarmed when construction begins in the summer. The temporary rice checks will be removed after the fields have been drained in August of 1998. After construction, the field will be surveyed and regraded to its preconstruction level and contour. The farmer will be compensated for the crop loss and all costs associated with preparing the working strip during field preparation. The backfill trench will be compacted and follow-up surveys will be conducted and finishing grading will be done, if necessary, to ensure irrigation flows are not adversely affected. (Applicant's L-1, Revised)*	Monitor activities during construction.	CPUC	Monitor construction schedule and activities	Fields adjacent to the construction strip are farmable and landowners are compensated.
	Mitigation Measure LU1b *Provide breaks in spoil piles or pipe strings to accommodate field access. (Applicant's L-2)*	Monitor activities during construction.	CPUC	Monitor construction schedule and activities	Farmers have uninterrupted field access.

Impact	Mitigation Monitoring Procedure	Timing	Monitoring Responsibility	Reporting Activity	Effectiveness Criteria
LAND USE AND PLANNING (Continued)					
Impact LU1 (continued)	**Mitigation Measure LU1c** *Bury pipeline up to 5 feet of cover to allow deep ripping and common field activities, as requested by farmers. (Applicant's L-3)*	Monitor activities during construction.	CPUC	Monitor construction schedule and activities	The right-of-way is returned to its full agricultural use after construction.
Residential access	**L-6** *Maintain access to adjacent residences at all times, consistent with mitigation measure T-3.*	Monitor activities during construction	CPUC	Monitor construction activities	Residential access is not precluded.
POPULATION AND HOUSING					
None					
GEOLOGIC PROBLEMS					
Impact GP1 *Seismicly induced liquefaction could be associated with soils used to construct equipment pads.*	**Mitigation Measure GP1a** *Conduct geotechnical testing of Well Pad Site and Remote Facility Site and incorporate appropriate design considerations. (Applicant's G-1)*	Secure building plan approval and building permits prior to construction	Butte County Development Services	Confirm geotechnical testing and review and approval of building plans by Butte County.	Compliance with approved plans
	Mitigation Measure GP1b *The placement of fill material for the construction of equipment pads must conform to the Uniform Building Code Seismic Zone Criteria. The design and placement of soil for equipment pads must be certified by a State Certified Professional Engineer. (Applicant's G-2, Revised)*	Secure building plan approval and building permits prior to construction	Butte County Development Services	Confirm geotechnical testing and review and approval of building plans by Butte County.	Compliance with approved plans
Impact GP2 *The high clay and organic content of these soils could result in a high liquid limit making them subject to liquefaction if they are not placed as engineered fill.*	**Mitigation Measure GP2** *The placement of fill material for the construction of equipment pads must conform to the Uniform Building Code Seismic Zone Criteria. The design and placement of the soil for equipment pads must be certified by a State Certified Professional Engineer. This will reduce impact to a less than significant level. (No Applicant numbered measure)*	Secure building plan approval and building permits prior to construction	Butte County Development Services	Confirm geotechnical testing and review and approval of building plans by Butte County.	Compliance with approved plans

Impact	Mitigation Monitoring Procedure	Timing	Monitoring Responsibility	Reporting Activity	Effectiveness Criteria
GEOLOGIC PROBLEMS (Continued)					
Impact GP3 *Disturbance of agricultural soil and compaction of soil structure.*	**Mitigation Measure GP3** *Restore soil profiles and compaction to preconstruction conditions following construction. (Applicant's G-3)*	Monitor construction activities	CPUC	Monitor construction	Agricultural practices and productivity are unaffected by pipeline construction.
Impact GP4 *Potential erosion of disturbed soils from construction activities.*	**Mitigation Measure GP4** *Prepare and implement a General Construction Storm Water Permit with a Storm Water Pollution Prevention Plan (SWPPP) and incorporate Best Management Practices. (Applicant's G-4)*	File Notice of Intent for Storm Water Permit prior to construction, approve SWPPP prior to project approval and monitor construction activities.	CPUC	Review and approve SWPPP, monitor plan compliance during construction.	Disturbed areas protected from erosion, with no visible or measurable erosion.
WATER					
Impact WA1 *The Well Pad Site is located in a flood zone and facilities may be subject to periodic inundation.*	**Mitigation Measure WA1** *Design all facilities at the Well Pad Site to withstand periodic inundation and receive an Industrial Activity Storm Water Permit for project operations. (Applicant's II-5)*	CPUC reviews design prior to construction and RWQCB issues permit prior to operation.	CPUC RWQCB	CPUC reviews Well Pad Site design and RWQCB issues permit.	Facilities designed to withstand flooding and compliance with permit conditions.
Impact WA2 *Construction of pipelines at crossings may cause potential disturbance and increase turbidity of waters in ditches and canals.*	**Mitigation Measure WA2a** *Bore crossing where the water body is too wide for culverts or trenching is otherwise not feasible. (Applicant's II-1)*	Monitor construction activities	CPUC	Monitor construction	Canals and ditches flow rates and function are fully reestablished.

Impact	Mitigation Monitoring Procedure	Timing	Monitoring Responsibility	Reporting Activity	Effectiveness Criteria
WATER (Continued)					
Impact WA2 (continued)	**Mitigation Measure WA2b** *Trenched crossings may be used where water is likely to be present if a culvert is installed in the ditch across the full width of the construction right-of-way while isolating the working strip during early-spring field preparation. Use sand bags to seal around the ends of the culvert, thereby ensuring that the work area remains isolated from the flowing water while the crossing is trenched during summer construction. (Applicant's H-2)*	Monitor construction activities	CPUC	Monitor construction	Canals and ditches flow rates and function are fully reestablished.
	Mitigation Measure WA2c *Trenched crossings of ditches will only occur if the ditch can be dried out at least 15 days prior to construction. (Applicant's H-3)*	Monitor construction activities	CPUC	Monitor construction	Canals and ditches flow rates and function are fully reestablished.
	Mitigation Measure WA2d *Reestablish the bottoms and sides of all trenched crossings of dry canals and ditches to pre-construction integrity. (Applicant's H-4)*	Monitor construction activities	CPUC	Monitor construction	Canals and ditches flow rates and function are fully reestablished.
Impact WA3 *Gas and produced water disposal well passing through freshwater zones.*	**Mitigation Measure WA3** *Construct all gas and disposal wells to Division of Oil, Gas & Geothermal Regulation (DOGGR) standards and case wells below the deepest freshwater aquifers. (Applicant's H-6)*	Secure DOGGR permit prior to project approval and monitor construction activities.	DOGGR	Issuance of permits by DOGGR	Compliance with DOGGR permits and designs.
Impact WA4 *Storm water runoff may affect water quality of surface waters.*	**Mitigation Measure WA4** *A Storm Water Pollution Prevention Plan (SWPPP) must be prepared and implemented as a condition of the General Construction Activity Storm Water Permit. (H-7)*	Approve the SWPPP prior to project approval, file the Notice of Intent prior to construction, and monitor construction.	CPUC RWQCB	CPUC review and approve of the SWPPP and construction monitoring.	Compliance with the SWPPP and no water quality impacts from construction run-off.

Impact	Mitigation Monitoring Procedure	Timing	Monitoring Responsibility	Reporting Activity	Effectiveness Criteria
WATER (Continued)					
Impact WA5 *Discharges of hydrostatic test water may result in potential impacts on turbidity and quality of surface waters.*	**Mitigation Measure WA5** *Prior to the discharge of hydrostatic test water to the drainage canals, samples of the water must be collected and analyzed to verify that it meets RWQCB water quality standards for the discharge. (No Applicant numbered measure)*	File the Notice of Intent prior to construction and monitor construction.	CPUC RWQCB	Obtain General Permit for Dewatering from RWQCB.	Compliance with the SWPPP and no water quality impacts from construction run-off.
AIR QUALITY					
Impact AQ 1 *State and/or federal air quality standards may be impacted by emissions of air pollutants during construction and operation of the Project.*	**Mitigation Measure AQ 1** *The Proponent will work with the AQMD to design and construct the project components, and will obtain an Authority to Construct and an Authority to Operate from the AQMD for the project. The design of the project will incorporate mitigation measures (such as Best Available Control Technology) to ensure that AQMD requirements are met. Applicant's Mitigation Measure A-12) utilizing dry, low NOx technology, will satisfy the BACT criteria. BCAQMD may require a more stringent control technology in their Authority to Construct. Impacts during construction will be minimized by utilizing the Applicant's mitigation measures A-8 through A-11. In addition, the Proponent will undertake a range of mitigation measures to limit the production of fugitive dust from construction activities (Applicant's A-1 through A-7):* • *Apply water to disturbed areas as necessary to reduce dust when vehicle traffic is present during preconstruction through restoration.* • *Cover open haul trucks with tarps both on and off the work site.* • *Use paved roads for construction vehicles access to the construction right-of-way wherever possible.*	Secure Authorities prior to construction and operations, respectively.	CPUC Butte County AQMD RWQCB	Monitor and document construction activity for compliance of the SWPPP as part of General Construction Storm Water Permit. Secure Authority to Construct and Authority to Operate from the AQMD.	Compliance with SWPPP and construction dust is minimized to extent practicable. Monitor emission and meet or be below standards prescribed by AQMD.

Impact	Mitigation Monitoring Procedure	Timing	Monitoring Responsibility	Reporting Activity	Effectiveness Criteria
AIR QUALITY (Continued)					
Impact AQ 1 (continued)	**Mitigation Measure AQ 1 (continued)** • *Limit vehicle speeds to 20 mph on unpaved construction access roads and the construction right-of-way, or as required to control dust.* • *Limit vehicle speeds on West Liberty Road to 20 mph and apply water regularly to control dust.* • *Remove any soil or mud deposited by construction equipment on paved roads near the egress from unpaved areas, or provide stabilized construction entrances from paved roads.* • *Stabilize disturbed areas following the completion of construction* *The issuance of the Authority to Construct and Authority to Operate documents will be confirmation that the Project will not exceed any state or federal air quality standards*				
Impact AQ 2 *The processing of odorized natural gas will result in the odor of natural gas at, and in the immediate vicinity of the Remote Facility Site. Odorized natural gas will be emitted from piping components such as valves and flanges (fugitive emissions), and discharge of gas through the relief vent during emergency situations.*	**Mitigation Measure AQ 2** *Piping components at the Remote Facility will be maintained to minimize leakage of odorized gas (Applicant's A-15 and A-16). Most piping connections at the facility will be welded, if possible (Applicant's A-14). Valves, flanges, and other piping components will be subject to a quarterly Inspection and Maintenance program to identify and fix leaking components (Applicant's A-13). It is anticipated that no more than two emergency blowdown situations will occur each year at the Remote Facility. Use of the relief vent will be minimized through routine maintenance at the facility. In the case of both the fugitive emissions and the relief vent emissions, odorized gas in the vicinity of the emission source will be quickly dissipated by even light winds, and it is expected that odors will be present only in the immediate vicinity of the Remote Facility.*	During project design, construction and operations.	CPUC DOT	Periodic required reports submitted to DOT. Review project designs as necessary and monitor construction to confirm implementation.	Gas odors around project features are minimal and no public complaints are received.

Impact	Mitigation Monitoring Procedure	Timing	Monitoring Responsibility	Reporting Activity	Effectiveness Criteria
AIR QUALITY (Continued)					
Emissions from construction vehicles and equipment	**A-8** *Bus workers from the Remote Facility staging area daily to the pipeline work site to minimize emissions from workers' vehicles.*	Monitor activities during construction.	CPUC	Monitor and document construction activity for compliance with mitigation measure.	Construction emissions are minimized to the extent practicable.
	A-9 *Encourage carpooling among construction workers through contractor bid specifications and project orientation training.*	Monitor activities during construction.	CPUC	Monitor and document construction activity for compliance with mitigation measures.	Construction emissions are minimized to the extent practicable.
	A-10 *Tune vehicles used in construction activities per the manufacturer's recommended maintenance schedule, or at least annually thereafter.*	Monitor activities during construction.	CPUC	Monitor and document construction activity for compliance with mitigation measures.	Construction emissions are minimized to the extent practicable.
	A-11 *Install high-pressure injectors on all engines for which they are available.*	Monitor activities during construction.	CPUC	Monitor and document construction activity for compliance with mitigation measures.	Constructions emissions are minimized to the extent practicable.
Potential gas odors from fugitive emissions	**A-15** *Include the use of ring-tight joint flanges with state-of-the-art gasket materials between the two flange faces in the design and construction of the larger flanged valves and fittings. To the maximum extent possible, weld all small valves to the pipe to minimize emissions from flanges and gaskets.*	During project design, construction and operations.	CPUC DOT	Review project designs as necessary and monitor construction to confirm implementation.	Gas odors around project features are minimal and no public complaints are received.
	A-16 *Unless necessitated by specific design requirements, use electric or compressed air automatic valve actuators on the project.*	During project design, construction and operations.	CPUC	Review project designs as necessary and monitor construction.	Gas odors around project features re minimal and no public complaints are received.

Impact	Mitigation Monitoring Procedure	Timing	Monitoring Responsibility	Reporting Activity	Effectiveness Criteria
TRANSPORTATION/CIRCULATION					
Impact T1 *Localized traffic congestion in the immediate vicinity of the Well Pad Site, Remote Facility Site, and the pipeline right-of-way could occur during project construction*	**Mitigation Measure T1** *To minimize the impacts of construction traffic and potential damage to county roads, WGSI has prepared a Transportation Management Plan, which sets forth the following measures to be implemented (Applicant's T-1 through T-6):* • *Coordinate the timing and route selection for movement of heavy equipment and truck traffic on county roads with the Butte and Sutter County Road Departments to minimize impacts.* • *Repair any damage to county roads and bridges or private roads caused by project construction activities.* • *Coordinate construction activities with county officials, landowners and lessees to minimize disruption to local traffic and movement of agricultural equipment.* • *Obtain an Encroachment Permit from Butte County for the pipeline construction activities in the county road right-of-way.* • *Regularly maintain the gravel surface on West Liberty Road to county standards during construction.* • *Provide breaks in spoil piles, trench or pipe strings to accommodate field access during construction.*	Approve TMP prior to project approval.	CPUC Butte County Sutter County	CPUC, Butte and Sutter County review and approve of the TMP and monitor during construction.	County road levels of service are not adversely affected and county roads are returned to preconstruction quality.

Impact	Mitigation Monitoring Procedure	Timing	Monitoring Responsibility	Reporting Activity	Effectiveness Criteria
TRANSPORTATION/CIRCULATION (Continued)					
Impact T2 *Heavy equipment could cause physical damage to bridge over Belding Lateral.*	**Mitigation Measure T2** *Cost-share with Butte County Public Works Department to upgrade the weight capacity of the West Liberty Road bridge by reconstructing the bridge support structure. (Applicant's T-7)*	Reconstruct bridge prior to pad construction at Remote Facility Site.	Butte County	Execute agreement with Butte County.	Bridge is reconstructed to standard weight rating.
BIOLOGICAL RESOURCES					
Impact BR 1 *Project construction could cause loss of individuals or populations of special status plant species and degradation or loss of special habitat.*	**Mitigation Measure BR 1a** *Before start of project construction in appropriate habitat areas, a floristically-timed survey for presence of California hibiscus within the project impact zone shall be conducted by a qualified botanist. See Table 4 of BRMMP for locations to be surveyed and preconstruction survey schedule. Individual plants and clusters identified during the survey shall be clearly marked and protected during construction. Where individual plants and clusters cannot be feasibly avoided, a tally shall be made of the total number to be destroyed by project construction. Plants to be removed may be excavated with a sufficient amount of topsoil to ensure successful revegetation, reserved, and re-planted in the same location after construction is completed. Or, seed may be collected from the removed plants and replanted in the same location after construction is completed. If it is not feasible to re-plant in the same location, the plants and/or seeds shall be transplanted or planted in another appropriate wetland revegetation area of the project. If it is not possible to salvage plant material from the plants to be removed, then California hibiscus seed or cuttings shall be collected from the nearest location to the impacted areas, or rooted plants shall be obtained from a nearby nursery for the revegetation. In any case, the number of plantings and/or transplantings shall be such that the number of*	Preconstruction surveys by a qualified botanist.	CPUC CDFG USFWS	Document and monitor surveys and avoidance during construction.	Compliance of the Biological Resource Mitigation and Monitoring Plan (BRMMP).

Impact	Mitigation Monitoring Procedure	Timing	Monitoring Responsibility	Reporting Activity	Effectiveness Criteria
BIOLOGICAL RESOURCES (Continued)					
Impact BR 1 (continued)	*California hibiscus plants or clumps remaining after monitoring for success must be at least equal to those removed by the project (No Applicant numbered measure.)*				
	Mitigation Measure BR 1b *Before start of project construction, clay flat areas supporting populations of Little mouse-tail shall be clearly marked by a qualified botanist as exclusion zones on construction plans and shall be marked in the field with orange fencing. Project activities will avoid these zones. (No Applicant numbered measure.)*	Preconstruction surveys by a qualified botanist.	CPUC CDFG USFWS	Document and monitor surveys and avoidance during construction.	Compliance of the Biological Resource Mitigation and Monitoring Plan (BRMMP).
Impact BR 2 *Project construction could cause temporary degradation or permanent loss of habitat for Giant garter snake and Northwestern pond turtle*	**Mitigation Measure BR 2a** *Before ground disturbance activities begin, the Specialty Resource Monitor shall provide Worker Environmental Training for all project workers. The Specialty Resource Monitor shall meet minimum qualifications including a degree in natural sciences, two years experience as an inspector on pipelines, knowledge of trench and bore crossings, wetland issues and storm water requirements, and specifically authorized by CDFG/USFWS for Giant garter snake and Northwestern pond turtle. The training shall include discussions on special status species identification, habitat requirements, mitigation measures, and worker responsibilities regarding the Giant garter snake and Northwestern pond turtle in particular as well as other special status species with potential to occur in the project area. (Applicant's B-28, Revised)*	Approval of BRMMP prior to project approval, conduct preconstruction surveys and monitor activities during construction.	CPUC CDFG USFWS	Review and approve BRMMP, and monitor and document preconstruction and construction activity for compliance with the plan.	Compliance with the BRMMP.

Impact	Mitigation Monitoring Procedure	Timing	Monitoring Responsibility	Reporting Activity	Effectiveness Criteria
BIOLOGICAL RESOURCES (Continued)					
Impact BR2 (continued)	**Mitigation Measure BR 2b** *During spring field preparation, pipeline corridor strips in rice fields shall be dried out with temporary checks (dams) to prevent Giant garter snakes from using them during construction. The checks will be removed before October 1 to prevent usage as winter hibernacula by the snakes. A qualified wildlife biologist with appropriate CDFG and USFWS scientific permits shall monitor the removal of the checks to ensure that no Northwestern pond turtles or Giant garter snakes are taken or trapped. (Applicant's B-20, Revised)*	Approval of BRMMP prior to project approval, conduct preconstruction surveys and monitor activities during construction.	CPUC CDFG USFWS	Review and approve BRMMP, and monitor and document preconstruction and construction activity for compliance with the plan.	Compliance with the BRMMP.
	Mitigation Measure BR 2c *To avoid direct impacts to habitat of the aquatic reptiles, a shaft for the pipeline shall be bored beneath Cherokee Canal, the 833 Canal, and all open ditches and channels containing water at the time of construction, instead of excavating open trenches at these locations. (Applicant's B-19, Revised)*	Approval of BRMMP prior to project approval, conduct preconstruction surveys and monitor activities during construction.	CPUC CDFG USFWS	Review and approve BRMMP, and monitor and document preconstruction and construction activity for compliance with the plan.	Compliance with the BRMMP.
	Mitigation Measure BR 2d *The Environmental Inspector shall ensure that all work areas, including ditches that are to be trenched for the pipeline, are dry for a minimum of 15 consecutive days before start of construction, to allow any Giant garter snakes a chance to escape. (Applicant's B-21, B-26, Revised)*	Approval of BRMMP prior to project approval, conduct preconstruction surveys and monitor activities during construction.	CPUC CDFG USFWS	Review and approve BRMMP, and monitor and document preconstruction and construction activity for compliance with the plan.	Compliance with the BRMMP.

Impact	Mitigation Monitoring Procedure	Timing	Monitoring Responsibility	Reporting Activity	Effectiveness Criteria
BIOLOGICAL RESOURCES (Continued)					
Impact BR2 (continued)	**Mitigation Measure BR 2e** *Within three days before start of construction in any area, a qualified wildlife biologist shall survey the project corridor for Giant garter snake and Northwestern pond turtle. If Giant garter snakes or turtles are found, they shall be removed by a biologist with appropriate CDFG and USFWS permits to suitable habitat away from the project, and wildlife biologists from CDFG and USFWS shall be notified. If a specific authorization is granted to allow a non-permitted biologist to relocate the reptiles, documentation of such a specific authorization shall be provided to CPUC in advance of the survey (Applicant's B-22, B-25, Revised)*	Approval of BRMMP prior to project approval, conduct preconstruction surveys and monitor activities during construction.	CPUC CDFG USFWS	Review and approve BRMMP, and monitor and document preconstruction and construction activity for compliance with the plan.	Compliance with the BRMMP.
	Mitigation Measure BR 2f *During construction, a qualified wildlife biologist shall monitor construction and shall check all excavation areas and open trenches each morning, at a minimum, to ensure that no Northwestern pond turtles or Giant garter snakes are taken or trapped. If Giant garter snakes or turtles are found, they shall be removed by a biologist with appropriate CDFG and USFWS permits to suitable habitat away from the project, and wildlife biologists from CDFG and USFWS shall be notified. If a specific authorization is granted to allow a non-permitted biologist to relocate the reptiles, documentation of such a specific authorization shall be provided to CPUC in advance of the survey.* *(Applicant's B-24, Revised)*	Approval of BRMMP prior to project approval, conduct preconstruction surveys and monitor activities during construction.	CPUC CDFG USFWS	Review and approve BRMMP, and monitor and document preconstruction and construction activity for compliance with the plan.	Compliance with the BRMMP.

Impact	Mitigation Monitoring Procedure	Timing	Monitoring Responsibility	Reporting Activity	Effectiveness Criteria
BIOLOGICAL RESOURCES (Continued)					
Impact BR2 (continued)	**Mitigation Measure BR 2g** *Within two weeks following construction disturbance at any ditch or canal, the banks shall be restored to original contours using stockpiled native topsoil, to prevent permanent habit loss for Giant garter snake. (Applicant's B-23, Revised)*	Approval of BRMMP prior to project approval, conduct preconstruction surveys and monitor activities during construction.	CPUC CDFG USFWS	Review and approve BRMMP, and monitor and document preconstruction and construction activity for compliance with the plan.	Compliance with the BRMMP.
	Mitigation Measure BR 2h *Opportunities for winter hibernacula sites for Giant garter snake shall be created at the well pad by installing a four foot high berm and incorporating angular rock and existing concrete rubble onto the north-facing side of the berm, as detailed in the Biological Assessment, page 32. (Applicant's B-27, Revised)*	Approval of BRMMP prior to project approval, conduct preconstruction surveys and monitor activities during construction.	CPUC CDFG USFWS	Review and approve BRMMP, and monitor and document preconstruction and construction activity for compliance with the plan.	Compliance with the BRMMP.
Impact BR 3 *Project construction in occupied habitat of special status bird species could cause disruption of breeding and nesting activities and loss of a year's reproductive effort.*	**Mitigation Measure BR 3a** *Within 60 days before start of project construction, appropriately-timed surveys for breeding activity or active nests of special status bird species shall be conducted in appropriate habitat within 100 feet of all project areas (½ mile radius for Swainson's hawk), by a qualified wildlife biologist. See Table 4 of BRMMP, page 23, for preconstruction survey schedule. (Applicant's B-16, Revised)*	Approval of BRMMP prior to project approval, conduct preconstruction surveys and monitor activities during construction.	CPUC CDFG USFWS	Review and approve BRMMP, and monitor and document preconstruction and construction activity for compliance with the plan.	Compliance with the BRMMP.

Impact	Mitigation Monitoring Procedure	Timing	Monitoring Responsibility	Reporting Activity	Effectiveness Criteria
BIOLOGICAL RESOURCES (Continued)					
Impact BR 3 (continued)	**Mitigation Measure BR 3b** *If breeding activity or one or more active nests of special status bird species is discovered during the preconstruction surveys, wildlife biologists from CDFG and/or USFWS shall be consulted, as appropriate, for modification of construction techniques or construction schedule to avoid impact to the species. At minimum, such locations shall be marked, protected and avoided before and during construction activities that take place during the sensitive reproductive period. If necessary, construction will be delayed in the immediate vicinity until young have fledged. (Applicant's B-17, revised).*	Approval of BRMMP prior to project approval, conduct preconstruction surveys and monitor activities during construction.	CPUC CDFG USFWS	Review and approve BRMMP, and monitor and document preconstruction and construction activity for compliance with the plan.	Compliance with the BRMMP.
	Mitigation Measure BR 3c *If soil conditions are sufficiently dry to support equipment, habitats supporting tules and dense vegetation that will be impacted by project activities will be mown before the start of breeding seasons for Northern harrier and Black tern, to prevent these species from nesting in the impact zone during construction periods. See Table 4 of BRMMP, page 23, for the avoidance windows. (Applicant's B-18)*	Approval of BRMMP prior to project approval, conduct preconstruction surveys and monitor activities during construction.	CPUC CDFG USFWS	Review and approve BRMMP, and monitor and document preconstruction and construction activity for compliance with the plan.	Compliance with the BRMMP.
Impact BR 4 *Project construction could cause temporary disruption of summer roosting or maternity colonies of special status bat species, or permanent abandonment of an area by the species.*	**Mitigation Measure BR 4a** *During the last half of March, a qualified wildlife biologist shall conduct a preconstruction survey of the West Liberty Road bridge for special status bat species. If no evidence of bats is found, temporary barriers shall be installed to prevent bats from colonizing the bridge before or during construction. If bat species are found, wildlife biologists from USFWS shall be notified and consulted for specific recommendations. (No Applicant numbered measure)*	Survey shall be conducted prior to construction. If bat species are found, notify USFWS wildlife biologist. Document survey.	CPUC USFWS	Conduct preconstruction survey for bats species. Follow USFWS wildlife biologist recommendations, if bat species are found. If none are found, install temporary barriers to prevent bats from colonizing before or during construction.	Identify presence of bat species roosting at the bridge. Temporarily prevent bats from colonizing bridge before and during construction. Monitor and document before and during construction.

Impact	Mitigation Monitoring Procedure	Timing	Monitoring Responsibility	Reporting Activity	Effectiveness Criteria
BIOLOGICAL RESOURCES (Continued)					
Impact BR 5T *Project construction will cause temporary disturbance of wetland habitat, potential changes to water quality and aesthetic values, alteration of composition of wetland vegetation, and could substantially diminish or degrade important wildlife habitat.*	**Mitigation Measure BR 5Ta** *To minimize impacts to water quality and wildlife, construction activities in wetlands will coincide with the driest period - approximately mid-June through mid-August. (Applicant's Measure B-1)*	Approve WMMP prior to project approval, monitor and document compliance during and after construction.	CPUC ACOE USFWS CDFG EPA	Review and approve a WMMP and monitor and document compliance during and after construction.	Compliance with plan including meeting post construction success criteria within required time frames.
	Mitigation Measure BR 5Tb *To avoid additional indirect wetland impacts, the edges of construction right-of-way in each area shall be clearly staked and surveyed in at a minimum of 100 foot intervals before start of construction in that area. (Applicant's Measure B-2, Revised)*	Approve WMMP prior to project approval, monitor and document compliance during and after construction.	CPUC ACOE USFWS CDFG EPA	Review and approve a WMMP and monitor and document compliance during and after construction.	Compliance with plan including meeting post construction success criteria within required time frames.
	Mitigation Measure BR 5Tc *To ensure swift habitat recovery in temporary disturbance areas, vegetation shall be cut at ground level wherever possible, leaving existing root systems intact. (Applicant's Measure B-3)*	Approve WMMP prior to project approval, monitor and document compliance during and after construction.	CPUC ACOE USFWS CDFG EPA	Review and approve a WMMP and monitor and document compliance during and after construction.	Compliance with plan including meeting post construction success criteria within required time frames.
	Mitigation Measure BR 5Td *To minimize riparian tree disturbance in areas to be trenched, trees shall be avoided where possible, and where unavoidable, removal of trees, stumps, and root systems shall be limited to the area directly over the trench. (Applicant's Measure B4, Revised)*	Approve WMMP prior to project approval, monitor and document compliance during and after construction.	CPUC ACOE USFWS CDFG EPA	Review and approve a WMMP and monitor and document compliance during and after construction.	Compliance with plan including meeting post construction success criteria within required time frames.

Impact	Mitigation Monitoring Procedure	Timing	Monitoring Responsibility	Reporting Activity	Effectiveness Criteria
BIOLOGICAL RESOURCES (Continued)					
Impact BR 5T (continued)	**Mitigation Measure BR 5Te** *To ensure swift recovery of wetland vegetation, 1 foot of topsoil shall be removed, segregated, and replaced after construction, in wetland areas disturbed by trenching. These areas shall then be returned to original contour, and disced to allow for natural revegetation. (Applicant's Measure B5, B-9, Revised)*	Approve WMMP prior to project approval, monitor and document compliance during and after construction.	CPUC ACOE USFWS CDFG EPA	Review and approve a WMMP and monitor and document compliance during and after construction.	Compliance with plan including meeting post construction success criteria within required time frames.
	Mitigation Measure BR 5Tf *To minimize compaction and enhance recovery of wetlands, where saturated soils are present or some standing water remains, wide-track or balloon tire construction equipment shall be used, or normal construction equipment shall be operated off of temporary timber pads, prefabricated equipment pads, or geotextile fabric overlain with gravel fill. Such temporary pads, if used, shall be removed after construction. (Applicant's Measure B6, B-7)*	Approve WMMP prior to project approval, monitor and document compliance during and after construction.	CPUC ACOE USFWS CDFG EPA	Review and approve a WMMP and monitor and document compliance during and after construction.	Compliance with plan including meeting post construction success criteria within required time frames.
	Mitigation Measure BR 5Tg *To minimize wetland degradation, cleanup activities shall be initiated immediately following trench backfilling. (Applicant's Measure B6, B-7)*	Approve WMMP prior to project approval, monitor and document compliance during and after construction.	CPUC ACOE USFWS CDFG EPA	Review and approve a WMMP and monitor and document compliance during and after construction.	Compliance with plan including meeting post construction success criteria within required time frames.
	Mitigation Measure BR 5Th *To ensure permanent revegetation of disturbed wetland and riparian areas, remedial action shall be taken wherever natural restoration has not successfully begun within one growing season, as judged by a qualified wetland biologist. This action may include regrading, topdressing with native soil, and planting of native plugs, seeds, or saplings, as necessary. (Applicant's Measure B10, revised)*	Approve WMMP prior to project approval, monitor and document compliance during and after construction.	CPUC ACOE USFWS CDFG EPA	Review and approve a WMMP and monitor and document compliance during and after construction.	Compliance with plan including meeting post construction success criteria within required time frames.

Impact	Mitigation Monitoring Procedure	Timing	Monitoring Responsibility	Reporting Activity	Effectiveness Criteria
BIOLOGICAL RESOURCES (Continued)					
Impact BR5T (continued)	**Mitigation Measure BR 5Ti** *To minimize disturbance to riparian vegetation during pipeline construction, canals, channels and adjacent ditches that support riparian vegetation shall be bored rather than trenched. (Applicant's Measure B11)*	Approve WMMP prior to project approval, monitor and document compliance during and after construction.	CPUC ACOE USFWS CDFG EPA	Review and approve a WMMP and monitor and document compliance during and after construction.	Compliance with plan including meeting post construction success criteria within required time frames.
	Mitigation Measure BR 5Tj *To avoid additional indirect wetland impacts, existing roads parallel to the working strip shall be used for construction access. (Applicant's Measure B12)*	Approve WMMP prior to project approval, monitor and document compliance during and after construction.	CPUC ACOE USFWS CDFG EPA	Review and approve a WMMP and monitor and document compliance during and after construction.	Compliance with plan including meeting post construction success criteria within required time frames.
	Mitigation Measure BR 5Tk *To ensure that accidental spills will not contaminate water bodies or wetlands, all refueling and hazardous materials storage shall be restricted to areas farther than 100 feet from the boundaries of all wetlands, streams and drainages, or refueling shall be limited to designated areas protected with berms. All hazardous materials spills shall be cleaned up immediately. (Applicant's Measure B13)*	Approve WMMP prior to project approval, monitor and document compliance during and after construction.	CPUC ACOE USFWS CDFG EPA	Review and approve a WMMP and monitor and document compliance during and after construction.	Compliance with plan including meeting post construction success criteria within required time frames.
	Mitigation Measure BR 5Tl *To prevent degradation of unaffected wetlands by accidental inflow of saturated spoil from adjacent trench excavation, trenches shall be dewatered and sediment barriers shall be installed and maintained within the right-of-way, wherever such potential exists. (Applicant's Measure B14, B15)*	Approve WMMP prior to project approval, monitor and document compliance during and after construction.	CPUC ACOE USFWS CDFG EPA	Review and approve a WMMP and monitor and document compliance during and after construction.	Compliance with plan including meeting post construction success criteria within required time frames.

Impact	Mitigation Monitoring Procedure	Timing	Monitoring Responsibility	Reporting Activity	Effectiveness Criteria
BIOLOGICAL RESOURCES (Continued)					
Impact BR 5P *Project construction will cause permanent loss of wetland habitats.*	**Mitigation Measure BR 5Pa** *Permanent wetland loss shall be compensated by implementation of the ACOE and USFWS-approved Wetlands Mitigation and Monitoring Plan, revised January 1997. The detailed plan provides for the following actions:(Applicant's B-29, Revised)* • *Creation of new wetlands, resulting in an overall project net increase. The increase wetland acreage will take place at excavation sites ("Wetland Creation Sites") 1,2, and 3, refer to Figure 6. This will be accomplished by the removal of upland soil for the new well pad and allowing the sites to revert to freshwater marsh (for a total of 1.91 acres). In addition, a small amount of clay flat habitat and wetland/riparian scrub will be created on Goose Island. For before and after acreage figures refer to Table 2-2 of the Wetlands Mitigation and Monitoring Plan. The additional wetlands, after compensating for the acreage loss of wetlands at the Well Pad Site and the Bride/Access Road, will result in a total net increase of 0.62 acre of jurisdictional wetlands on the Wild Goose Club property.* • *Installation of habitat enhancement measures for Giant garter snake at Goose Island and the Well Pad Site.*	Approve plan, monitor and document construction and post construction mitigation and effectiveness criteria.	CPUC CDFG USFWS EPA ACOE	Review and approve the BRMMP, including construction and post construction monitoring.	Compliance with the effectiveness criteria in the BRMMP.

Impact	Mitigation Monitoring Procedure	Timing	Monitoring Responsibility	Reporting Activity	Effectiveness Criteria
BIOLOGICAL RESOURCES (Continued)					
Impact BR 6 *The project may result in short-term impacts to the use of some areas of the corridor by migrating birds during the construction phase.*	**Mitigation Measure BR 6** *Based on coordination and consultation with appropriate resource agencies, the mitigation measures for impact BR 3, BR 5T, and BR 5P will reduce these potential impacts to an insignificant level. No additional mitigation measures are necessary.*	Approval of BRMMP prior to construction and monitor during construction.	CPUC CDFG USFWS	Review and approve the BRMMP, monitor and document compliance during construction and post construction.	Compliance with the BRMMP.
Temporary impacts to wetlands and riparian areas	**B-8** *Initiate cleanup activities immediately following trench backfilling.*	Approve plan prior to project approval, monitor and document compliance during and after construction.	CPUC ACOE USFWS CDFG EPA	Review and approve a Wetland Mitigation and Monitoring Plan and monitor and document compliance during and after construction.	Compliance with plan, including meeting post construction success criteria within required time frames.
ENERGY AND MINERAL RESOURCES					
None					
HAZARDS					
Impact HA 1 *Potential for accidental explosions of natural gas pipeline and/or storage systems. Hazards associated with use of hazardous substances during construction and operation*	**Mitigation Measure HA 1a** *The Applicant will incorporate into the construction bid requirements for compliance with local and state fire prevention regulations. The Fire Prevention Plan will include preventative measures, training, and fire control and suppression equipment. Additional details of the Fire Prevention Plan are provided in Section 12.6 of the PEA. The Fire Prevention Plan must be reviewed and approved by local and state fire officials. Acceptance of the Fire Prevention Plan by local and state fire officials is considered to be adequate to demonstrate that construction impacts have been mitigated to insignificance.*	Submit plans to DOT prior to operation. Operational requirements determined by Butte County during building permit review.	CPUC DOT Butte County - Fire Department	CPUC, DOT, and Butte County Fire Department review and approval of the plan, monitoring during construction and operations.	Preparation and implementation of Operating and Maintenance Plan, Damage Prevention Pan and Emergency Response Plan, and a Fire Protection Plan, with required suppression equipment on-site.

Impact	Mitigation Monitoring Procedure	Timing	Monitoring Responsibility	Reporting Activity	Effectiveness Criteria
		HAZARDS (Continued)			
Impact HA 1 (continued)	**Mitigation Measure HA 1a (continued)** *The Applicant will prepare and implement an Operating and Maintenance Plan, a Damage Prevention Plan, and an Emergency Response Plan, as required by the federal Department of Transportation (DOT) and the CPUC General Order 112-E (Section 192.615) prior to operations of the project. The facility will not be allowed to operate unless the Emergency Response Plan is deemed acceptable and complete by local and state fire officials. Acceptance of the Emergency Response Plan by local and state fire officials is considered adequate to demonstrate that operational impacts have been mitigated to insignificance. Extensive fire detection equipment will be installed at both the Well Pad Site and the Remote Facility Site. The fire control technology used at intrastate and interstate natural gas compressor stations, which operate continuously at high pressures, will be used at the facility. The project will utilize proven industry technology for monitoring the safety of these high pressure systems, and for dealing with worst-case contingencies as they occur. During normal operations, the Remote Facility Site will be monitored by gas, fire, and vibration sensors which will automatically shut down the facility if unusual conditions are detected.*				
	Mitigation Measure HA 1b *The Emergency Response Plan for the facility, required by the DOT, will further outline fire safety, prevention, and control systems at the Remote Facility (Applicant's P-4). Additional fire suppression equipment may be required under the Butte County building permit process, and will be provided for the facility.*	Submit plans to DOT prior to operation. Operational requirements determined by Butte County during building permit review.	CPUC DOT Butte County - Fire Department	CPUC review and approve the plan, monitor during construction and operations.	Preparation and implementation of Operating and Maintenance Plan, Damage Prevention Pan and Emergency Response Plan, and a Fire Protection Plan. with required suppression equipment on-site.

Impact	Mitigation Monitoring Procedure	Timing	Monitoring Responsibility	Reporting Activity	Effectiveness Criteria
HAZARDS (Continued)					
Impact HA 1 (continued)	**Mitigation Measure HA 1c** *The handling of hazardous substances during construction and operation of the Project will be managed in accordance with best management practices outlined in the facility's Stormwater Pollution Prevention Plan (SWPPP). In addition, a Hazardous Materials Release Response Plan (HMRRP) will be prepared, as required by the California Health and Safety Code (Applicant's P-2). The HMRRP will identify the types of hazardous substances at the facility site, the types of wastes generated, storage and disposal practices, employee training, and emergency response procedures in case of a spill or release of a hazardous substance. Methanol and waste oils stored at the Remote Facility Site will be placed inside secondary containment systems to prevent the potential release of these materials. Due to the relatively small amount of hazardous substances that will be stored and used during operations, the best management practices to be followed will help ensure that hazardous substances will not have a significant impact on receptors in the Project area or elsewhere.*	Submit plans to DOT prior to operation. Operational requirements determined by Butte County during building permit review.	CPUC DOT Butte County - Fire Department	CPUC review and approval of the plan, monitoring during construction and operations.	Preparation and implementation of Operating and Maintenance Plan, Damage Prevention Pan and Emergency Response Plan, and a Fire Protection Plan. with required suppression equipment on-site.
Impact HA 2 *Hazardous substances stored and used during construction and operation may present potential health hazards.*	**Mitigation Measure HA 2** *The project will meet strict regulatory requirements regarding the protection of human health during construction and operation of the system. Under the SWPPP and HMRRP described above, hazardous substances will be handled in a safe manner (Applicant's P-2).*	Approval of the SWPPP and HMRRP prior to project approval.	CPUC Butte County - Environmental Health RWQCB	Review, approval and filing with appropriate agencies as described in mitigation measures WA 4 and HA 1c.	Compliance with the SWPPP and HMRRP.

Impact	Mitigation Monitoring Procedure	Timing	Monitoring Responsibility	Reporting Activity	Effectiveness Criteria
HAZARDS (Continued)					
Impact HA 3 *Pipeline construction through nonagricultural areas may pose a threat of fire to existing vegetation*	**Mitigation Measure HA 3** *The Proponent will incorporate into the construction bid specification requiring compliance with local and state fire prevention regulations (Applicant's P-3). The Fire Prevention plan will include preventative measures, training, and fire control and suppression equipment. This plan will reduce the potential impact of fire hazard to existing vegetation to an insignificant level. Additional details of the Fire Prevention Plan are provided in Section 12.6 of the PEA.*	Approval of plan prior to project approval.	CPUC Butte County - Fire Department	CPUC review and approve of plan, monitor	Plan is prepared and implemented
NOISE					
Impact NO 1 *The operations at the Remote Facility Site will create noise above the ambient noise level at the site. In addition, construction and drilling activities will also increase noise levels.*	**Mitigation Measure NO 1a** *Release valves and blowdown at the Remote Facility Site will be routed to the relief vent at the facility, which will be designed to produce a maximum of 75 dBA at the property line at any point in time during a blowdown event. Other noise-producing equipment at the facility, including compressor and gas turbine, will be housed inside frame buildings with significant sound insulation. In addition, acoustical enclosures will be placed around all noise-producing equipment as needed (Applicant's N-3). Based on these measures, noise from the operation of the facility will be dissipated to the ambient noise level prior to reaching the nearest receptor. The ambient noise level in the vicinity of the Remote Facility Site is between approximately 36 dBA and 42 dBA; the mitigation measures to be undertaken at the facility will result in no increase in this noise level at the sensitive receptors in the area.*	Monitor construction activities and conduct follow-up noise measurements once operational.	CPUC Butte County - Planning	Review acoustical designs, monitor construction activities and conduct noise survey once operational.	Actual operational noise levels are below proposed noise levels, or are subsequently reduced to prescribed levels.

Impact	Mitigation Monitoring Procedure	Timing	Monitoring Responsibility	Reporting Activity	Effectiveness Criteria
NOISE (Continued)					
Impact NO 1 (Continued)	**Mitigation Measure NO 1b** *Pipeline construction activities will be limited to daylight hours (Applicant's N-1). Engines in use during construction and drilling will be properly muffled (Applicant's N-2). No significant noise impact is anticipated from construction or drilling activities, which will utilize equipment that produce noise level ranges equivalent to agricultural equipment. Peak hour noise level for pipeline construction will not exceed 85 dBA on a short term basis at the nearest receptor to the Well Pad Site, and will not exceed 70 dBA at all other receptors in the area. Pipeline construction activities will be very short term, and will not produce a significant impact. Impacts of construction and drilling activities upon nearby receptors will be lower than that of the pipeline construction activities.*	Monitor construction activities.	CPUC Butte County - Planning	Monitor construction activities.	Construction noise levels are below proposed noise levels, or are subsequently reduced to prescribed levels.
Impact NO 2 *Noise from blowdown events or pressure-release valves can be as high as 120 dB per occasion and would be considered severe to nearby sensitive receptors.*	**Mitigation Measure NO 2** *Pressure-release valves and blowdown at the Remote Facility Site will be routed to the relief vent at the facility, which will be designed to produce a maximum of 75 dBA. The relief vent will be tested after installation to ensure that the vent can meet this noise limitation. (Applicant's N-3)*	Conduct follow-up noise measurements once operational.	CPUC Butte County - Planning	Review acoustical designs and conduct noise survey once operational.	Actual operational noise levels meet or are below proposed noise levels, or are subsequently reduced to prescribed levels.
PUBLIC SERVICES					
Impact PS1 *Use of heavy equipment for construction and transportation of pipe and materials may cause significant impact on public roads.*	**Mitigation Measure PS1** *WGSI has prepared a Transportation Management Plan which sets forth measures to be implemented to ensure that existing transportation and access roads are restored or maintained to preconstruction conditions. (Applicant's T-2, Revised)*	Approve TMP prior to project approval.	CPUC Butte County Sutter County	Butte and Sutter County review and approve of the TMP and monitor during construction.	County road levels of service are not adversely affected and county roads are returned to preconstruction quality.

Impact	Mitigation Monitoring Procedure	Timing	Monitoring Responsibility	Reporting Activity	Effectiveness Criteria
UTILITIES AND SERVICE SYSTEMS					
Impact US1 *Construction activities may cause storm water pollution and degradation of water quality.*	**Mitigation Measure US1** *WGSI has prepared a Storm Water Pollution Prevention Plan (SWPPP) to identify potential pollutant sources, implement storm water pollution prevention measures, and identify measures to manage allowable storm water discharges to ensure that no materials are discharged in quantities that will adversely affect quality of receiving waters. (Applicant's H-7, Revised)*	Approval of the SWPPP prior to project approval, file the Notice of Intent prior to construction, and monitor during construction.	CPUC RWQCB	CPUC review and approve of the SWPPP and construction monitoring.	Compliance with the SWPPP and no water quality impacts from construction run-off.
Conflict with existing gas and electric facilities	**E-1** *Install signs warning equipment operators of overhead electric lines.*	Confirm coordination prior to construction and monitor construction activities.	CPUC	Confirm coordination with PG&E and installation of signage	No disruption of service during construction.
Conflict with existing gas and electric facilities (continued)	**E-2** *Coordinate with PG&E to locate existing gas pipelines and include locations on design drawings.*	Confirm coordination prior to construction and monitor construction activities.	CPUC	Confirm coordination with PG&E and installation of signage.	No disruption of service during construction.
AESTHETICS					
Impact AE1 *Construction of the Remote Facility Site would contrast with the existing aesthetic character of the surrounding landscape and result in an adverse aesthetic impact.*	**Mitigation Measure AE1** *While Butte County does not have architectural requirements or a formal design review process, efforts will be made to blend project facilities with the surrounding landscape. All buildings and aboveground features will be painted a flat-finish neutral color. Site lighting will be hooded and directed toward the interior of the site. Where feasible, building design will emulate*	Approval of the Visual Mitigation/ Landscaping Plan prior to construction.	CPUC	Review and approve the VM/LP.	Remote Facility Site is screened from view on all four sides.

Impact	Mitigation Monitoring Procedure	Timing	Monitoring Responsibility	Reporting Activity	Effectiveness Criteria
AESTHETICS (Continued)					
Impact AE1 (Continued)	**Mitigation Measure AE1 (Continued)** *other agricultural buildings in the area and pipe segments and valves in the Remote Facility Site will be installed underground or in sub-surface vaults. A landscaped perimeter will visually screen the site on all four sides and a berm will be constructed on the south side along the road. Plant species will include tall-growing trees and shrubs. Much of the landscape container stock will be 5-gallon size or larger to provide better initial screening and allow the ultimate screening provided by mature species to occur sooner. Specific planting plans and designs will be coordinated with the property owner and the Gray Lodge manager to ensure these materials provide wildlife opportunities while not adversely affecting the adjacent rice farming. These plans will be included in a detailed Visual Mitigation Plan. (Applicant's V-3, Revised)*				
Impact AE2 *Construction of the Well Pad Site will contrast with the surrounding natural area and result in an adverse aesthetic impact.*	**Mitigation Measure AE2** *Since the quality of the hunting experience in the surrounding area is predicated on a natural setting, mitigation is proposed to minimize the visual presence of the Well Pad Site. The project applicant has entered into an agreement with the Wild Goose Club to prepare a landscape plan to eliminate potentially intrusive views. This plan will provide for the construction of an earthen perimeter berm around the Well Pad Site to conceal wellheads and equipment. Native vegetation will be planted outside and on top of the berm to further conceal the facility. These plans will be included in a detailed Visual Mitigation Plan. Emergency site lighting will be hooded and directed toward the interior of the site. With the implementation of these mitigation*	Approve of VM/LP prior to construction	Wild Goose Club	Review and approval of the VM/LP	Well Pad Site is screened from view.

Impact	Mitigation Monitoring Procedure	Timing	Monitoring Responsibility	Reporting Activity	Effectiveness Criteria
AESTHETICS (Continued)					
Impact AE2 (Continued)	**Mitigation Measure AE2 (Continued)** *measures, the Wild Goose Club has determined that the presence of the Well Pad Site would not represent a significant visual impact to its members and would not adversely affect their hunting experience. (Applicant's V-2, Revised)*				
Pipeline construction scar	**V-1** *Consistent with the Biological Resource Mitigation and Monitoring Plan, replace seed base in topsoil along pipeline route and allow ample water in area to promote natural revegetation.*	Approve plan prior to project approval and conduct follow-up review per plan.	CPUC	Review and approve the plan.	Pipeline construction scar revegetates in one season.
CULTURAL RESOURCES					
Impact CR1 *Construction of the project could potentially impact the Cherokee Canal, Lateral A which is eligible for listing on the NRHP.*	**Mitigation Measure CR1** *Avoidance of the resource will be implemented, including the use of passive measures (fencing, signage, etc.). Construction techniques such as jack-and-bore will be used to bore beneath existing canal features, and work areas will stay a minimum of 15 feet away from the toe of any canal or levee bank to avoid damaging the structure. In addition, a Memorandum of Agreement and associated Historic Properties Management Plan has been prepared to address specific data recovery issues for historic and prehistoric resources should such resources be discovered during construction. (Applicant's C-1 through C-8, Revised)*	Approve Historic Properties Management Plan (HPMP) prior to project approval, monitor activities during construction.	CPUC ACOE SHPO ACHP	Review and approve the HPMP, execute a Memorandum of Agreement and monitor and document construction activity for plan compliance.	Compliance with the HPMP.
Disturbance of significant paleontological resources	**G-5** *Suspend work in the immediate area and call a qualified paleontologist to determine the appropriate treatment and salvage requirements if paleontological resources are discovered during construction.*	Monitor construction activities.	CPUC	Monitor construction.	Significant paleontological resources are treated and salvaged appropriately.

Impact	Mitigation Monitoring Procedure	Timing	Monitoring Responsibility	Reporting Activity	Effectiveness Criteria
RECREATION					
Impact R1 *Construction of the facilities at the Well Pad Site could decrease the quality of the recreation experience in the surrounding area.*	**Mitigation Measure R1a** *The project applicant has entered into an agreement with the Wild Goose Club to prepare a landscape plan to eliminate potentially intrusive view. (No Applicant numbered measure, see Aesthetics mitigation measure AE 2)*	Enter into agreement prior to operations. Monitor activities during construction.	CPUC	Document agreement. Monitor construction schedule and activities.	Disturbance of hunting by project operations is minimized. Recreational hunting is not precluded by project construction.
	Mitigation Measure R1b *Preclude construction during the fall and winter hunting seasons. (Applicant's L-4)*	Enter into agreement prior to operations. Monitor activities during construction.	CPUC	Document agreement. Monitor construction schedule and activities.	Disturbance of hunting by project operations is minimized. Recreational hunting is not precluded by project construction.
	Mitigation Measure R1c *Avoid outdoor operational and maintenance activities during the hunting season when possible. (Applicant's L-5)*	Enter into agreement prior to operations. Monitor activities during construction.	CPUC	Document agreement. Monitor construction schedule and activities.	Disturbance of hunting by project operations is minimized. Recreational hunting is not precluded by project construction.
Impact R2 *At the Remote Facility Site, development of the site equates to loss of approximately 4 duck blind seats.*	**Mitigation Measure R2** *Project applicant will compensate property owners for any loss of revenue resulting from the reduction in hunting lease acreage, or the cost of relocating the duck blind seats. (No Applicant numbered measure)*	Establish payment method with property owners prior to construction.	CPUC	Payment of compensation to property owners.	Property owners compensated for reduction in revenue.

Impact	Mitigation Monitoring Procedure	Timing	Monitoring Responsibility	Reporting Activity	Effectiveness Criteria
RECREATION (Continued)					
Impact R3 *Temporary restriction of public access to the fishing area on Gray Lodge property.*	**Mitigation Measure R3** *According to Gray Lodge staff, use of the fishing access area at the end of West Liberty Road is concentrated on weekends in the spring and fall. To minimize the impacts to the fishermen who may wish to use the area, the closure of West Liberty Road for bridge work will occur mid-week during the summer when fishing use is lowest. However, should this work not be completed during the week, fishing use of the access area would be precluded for one weekend. To minimize the impacts of this short-term closure, notices of the pending road closure will be posted in advance along the road, at the Gray Lodge Headquarters, and published in the Gridley Herald newspaper, at least two weeks prior to the closure. (No Applicant numbered measure)*	Post notices of road closure 2 weeks in advance in the Gridley Herald.	CPUC	Publish notice in the Gridley Herald.	Impacts of the short term closure of West Liberty Road is minimized.

ENVIRONMENTAL CHECKLIST

I. LAND USE AND PLANNING.

Environmental setting

The project area is located near the southwestern boundary of Butte County. This area of the County is rural and consists of many large acreage farms dedicated almost entirely to rice production. Wetlands in this area provide waterfowl habitat, as well as opportunities for hunting and other water-related recreation. The proposed gas pipeline right-of-way is currently used for agriculture (47 percent) and resource management (29 percent), with the remaining 24 percent in existing public or private roadway. The Well Pad Site will be located on managed wetlands for waterfowl habitat. The Remote Site Facility is located in rice fields under private ownership.

The entire project area is designated as "Orchard" or "Field Crop" land under the Butte County General Plan. This designation allows as primary uses orchard and crop production, hunting and water-related recreation, with resource extraction and processing as secondary uses. Butte County Zoning Ordinance designates the project area as agriculture with a 40-acre minimum parcel size (A-40).

Would the proposal:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with general plan designation or zoning?	☐	☐	☐	■

The proposed project involves development of a depleted 137-billion-cubic-foot underground natural gas reservoir for use as gas storage. This is consistent with the County's General Plan designation which allows resource extraction and processing as secondary uses.

The proposed project will be regulated by the California Public Utilities Commission (CPUC) and maybe considered to be a public utility. The Subdivision Map Act (Government Code § 66426.5) exempts conveyances of land to public utilities from minimum parcel size requirements, therefore, the acquisition of a 5-acre parcel for the Remote Site Facility is consistent with the zoning designation. The Butte County Planning Department concurs with this interpretation.

b) Conflict with applicable environmental plans or policies adopted by agencies with jurisdiction over the project?	☐	☐	☐	■

The proposed project would not conflict with applicable environmental plans or policies adopted by Butte County or any other agencies with jurisdiction over the project. Soils within the project area do not qualify as "prime", Class I or Class II, agricultural land, therefore, the project will not conflict with the protection of agricultural and prime agricultural land as identified in the County General Plan.

c) Be incompatible with existing land use in the vicinity? ☐ ☐ ☐ ■

The proposed project will not be incompatible with existing land uses in the project vicinity. Current land use in the vicinity is characterized by large-acreage farms dedicated almost entirely to rice production. According to the Butte County General Plan, non-agricultural uses may be considered where buffers can be incorporated into the design of the non-agricultural land use. Two acres will be retained as buffer area for the Remote Site Facility.

d) Affect agricultural resources or operations (e.g., impacts to soils or farmlands, or impacts from incompatible land uses)? ☐ ■ ☐ ☐

This includes the loss of crop production, potential alteration of field gradient, irrigation, and drainage. Settling of pipeline trench backfill could adversely effect field gradient. Operation of the Remote Site Facility will permanently remove 5 acres of non-prime agricultural land from production. The 5 acres required for the construction and operation of the Remote Site Facility will be either acquired through a purchase in fee or a long term lease. The permanent loss of agricultural productivity for these 5 acres is not considered significant.

Impact LU1
Construction of pipelines in agricultural areas will result in potential impacts to rice crop production on 15 acres.

Mitigation Measure LU1a
All pipeline construction will be completed as one continuous construction activity between mid-June and mid-August, 1998. In order to construct in the rice fields during this time frame, the construction working strip will be isolated from the adjacent fields and no rice will be planted. This will be accomplished by installing a new temporary rice check 75 feet away from and parallel to the field edge. Installation of the temporary rice check will be performed by the rice farmers during their normal field preparation activities in February and March, 1998. This will allow the adjacent fields to be flooded and planted, but the isolated construction working strip will remain dry and unfarmed when construction begins in the summer. The temporary rice checks will be removed after the fields have been drained in August of 1998. After construction, the field will be surveyed and regraded to its preconstruction level and contour. The farmer will be compensated for the crop loss and all costs associated with preparing the working strip during field preparation. The backfill trench will be compacted and follow-up surveys will be conducted and finishing grading will be completed by the Proponent, if necessary, to ensure irrigation flows are not adversely affected. (Applicant's L-1, Revised)

Mitigation Measure LU1b
Provide breaks in spoil piles or pipe strings to accommodate field access. (Applicant's L-2)

Mitigation Measure LU1c
Bury pipeline up to 5 feet of cover to allow deep ripping and common field activities, as requested by farmers. (Applicant's L-3)

Implementation of these mitigation measures would reduce the impacts on agricultural resources along the pipeline route to a less than significant level.

e) Disrupt or divide the physical arrangement of an established community (including a low-income or minority community)?	☐	☐	☐	■

The proposed project will not divide or disrupt an established community. There are three residences within one-half mile of the proposed project facilities. All of these residences are single-family homes associated with the farming operations and/or waterfowl management areas. A total of ten residences are within one-half mile of the proposed and alternative project facilities.

II. POPULATION AND HOUSING.

Environmental setting

Butte County has a population of 204,260 (January 1995) and is predominantly rural, with the exception of the City of Chico and its surrounding developed areas. The county experienced a population increase of more than 25 percent between 1980 and 1990. Population in the immediate project area is very sparse and is primarily associated with agricultural activities. No residences or business establishments will be displaced by the project.

Butte County's employment in 1994 was 75,500 jobs. Because county employment is heavily influenced by the City of Chico, only 5 percent of county jobs are in agriculture and 4 percent are in mining and construction. Butte County's 1994 average unemployment was 10.2 percent, with moderate seasonal variation. Per capita income was $12,083 in 1990.

Butte County's housing stock was approximately 76,000 in 1990, with a vacancy rate 5.8 percent. Temporary housing within 40 miles of the project consists of roughly 1793 hotel/motel rooms. In addition to the available motels, there are several camping facilities with a total of approximately 402 campsites within commute distance of the project area.

Would the proposal:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cumulatively exceed official regional or local population projections?	☐	☐	☐	■

The temporary construction workforce will peak at about 120 workers. The majority of the workers hired for project construction will be from local areas, up to 70 miles out. Some nonlocal labor will be used only for specialized skills not readily available locally. Nonlocal construction workers would peak at 39. Since nonlocal workers will be in the area only during project construction and would then move on to construction projects in other locations, no population increases would occur. During operation of the project, up to ten workers will be hired locally, therefore population will not exceed regional or local population projections.

b) Induce substantial growth in an area either directly or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure)?	☐	☐	☐	■

The proposed project will not induce substantial short or long term growth in the area. During construction and operations, the majority of workers will be hired locally, within commuting distance.

There are no other past, present, future projects in the area that could result in cumulative impacts. The scale and nature of the project is such that it will not result in any growth inducing effects. No public infrastructure extensions (except telephone service) are needed, and few if any public services will be required.

c) Displace existing housing, especially affordable housing? ☐ ☐ ☐ ■

Non-local workers are expected to use hotel/motel accommodations because of the relatively short construction period. Therefore, no demand for permanent housing should occur. During construction, the estimated maximum number of non-local workers is 34 for a six week period. Assuming worst-case scenario of one room per non-local worker during peak construction, a total of 34 hotel/motel rooms will be needed for six weeks. If workers share rooms or use recreational vehicle parks or camp spaces, fewer hotel/motel rooms would be needed than are estimated. This demand represents less than 3 percent of the available rooms, therefore the impact of the project on transient room accommodations will not be significant.

Population of the immediate project area is very sparse and is primarily associated with agricultural activities. No residences or business establishments will be displaced by the project.

III. GEOLOGIC PROBLEMS.

Environmental setting

The proposed project is located in the Sacramento Valley geomorphic province, which is generally a level alluvial plane underlain by both marine and alluvial sediments. Topography is very flat, with elevations ranging from 58 feet above sea level at the Well Pad Site, to approximately 67 feet at the Remote Facility Site. Besides the Sutter Buttes, which are located several miles to the southeast, there are no unique geologic or physical features in the immediate project area

Would the proposal result in or expose people to potential impacts involving:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Fault rupture?	☐	☐	☐	■

Fault rupture or surface displacement is not likely to occur beneath the project facilities. As indicated in the PEA, the greatest potential for seismic activity is associated with the Willows Fault located approximately 7.5 miles southwest of the well pad site. Movement along this fault would likely not result in surface displacement beneath the project facilities. People would not be exposed to fault rupture as a result of the project.

b) Seismic ground shaking?	☐	☐	☐	■

The project will not induce seismic ground shaking. As stated above the greatest potential for seismic activity is associated with the Willows Fault. The project should not contribute to potential movement along this fault.

c) Seismic ground failure, including liquefaction?	☐	■	☐	☐

Material used to construct the equipment pads at the Well Pad Site will be coming from nearby habitat improvement projects. This material may be water logged and full of organic material making it susceptible to seismic induced liquefaction if it is not placed as engineered fill.

Impact GP1
Seismicly induced liquefaction could be associated with soils used to construct equipment pads.

Mitigation Measure GP1a
Conduct geotechnical testing of Well Pad Site and Remote Facility Site and incorporate appropriate design considerations. (Applicant's G-1)

Mitigation Measure GP1b
The placement of fill material for the construction of equipment pads must conform to the Uniform Building Code Seismic Zone Criteria. The design and placement of soil for equipment pads must be certified by a State Certified Professional Engineer. (Applicant's G-2, Revised)

This will reduce impacts to less than significant.

d) Seiche, tsunami, or volcanic hazard?	☐	☐	☐	■

Seiches, tsunamis and volcanic hazards will not occur as a result of the project.

e) Landslides or mudflows? ☐ ☐ ☐ ■

The surrounding topography is flat and therefore not susceptible to landslides or mudflows.

f) Erosion, changes in topography or unstable soil conditions from excavation, grading, or fill? ☐ ■ ☐ ☐

Material used to construct the equipment pads will come from nearby habitat improvement projects. This material may be water logged and full of organic material making it susceptible to seismic induced liquefaction. Construction activities will also disturb agricultural soils and cause compaction of soil.

Impact GP2
The high clay and organic content of these soils could result in a high liquid limit making them subject to liquefaction if they are not placed as engineered fill.

Mitigation Measure GP2
The placement of fill material for the construction of equipment pads must conform to the Uniform Building Code Seismic Zone Criteria. The design and placement of the soil for equipment pads must be certified by a State Certified Professional Engineer. This will reduce impact to a less than significant level. (No Applicant numbered measure)

Impact GP3
Disturbance of agricultural soil and compaction of soil structure.

Mitigation Measure GP3
Restore soil profiles and compaction to preconstruction conditions following construction. (Applicant's G-3)

Impact GP4
Potential erosion of disturbed soils from construction activities.

Mitigation Measure GP4
Prepare and implement a General Construction Storm Water Permit with a Storm Water Pollution Prevention Plan (SWPPP) and incorporate Best Management Practices. (Applicant's G-4)

This will reduce impacts to less than significant.

g) Subsidence of the land? ☐ ☐ ☐ ■

Land subsidence will not result from the project activities.

h) Expansive soils? ☐ ☐ ☐ ■

The project facilities are not subject to expansive soil.

i) Unique geologic or physical features? ☐ ☐ ☐ ■

The project does not expose people to impacts from unique geologic or physical features.

IV. WATER.

Environmental setting

Butte Creek is located approximately 0.5 mile west of the project area, flowing southward to the Sacramento River. The creek's headwaters begin at elevations of 5,000 to 6,000 feet in the Jonesville Basin portion of the Sierra Nevada mountains in the northeast corner of Butte County. The primary contributor to Butte Creek's flow is winter rain, while snowmelt also contributes to additional flow. In addition, PG&E imports water into the Butte Creek basin from the west branch of the Feather River by part of its hydroelectric generation system. Numerous diversion dams north of the project area regulate Butte Creek. The Butte Creek basin is a multipurpose waterway, providing flood control with levee systems, water supply conveyance for irrigation and waterfowl, agricultural drainage, and fisheries habitat. Cherokee Canal is a multi-purpose waterway parallel to the southern access road to the Well Pad Site. The access road crosses over the canal near the location of the Wild Goose Club.

Would the proposal result in:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Changes in absorption rates, drainage patterns, or the rate and amount of surface runoff?	☐	☐	☐	■

The project will not change absorption rates, drainage patterns or surface run off.

b) Exposure of people or property to water related hazards such as flooding?	☐	■	☐	☐

Impact WA1
The Well Pad Site is located in a flood zone and facilities may be subject to periodic inundation.

Mitigation Measure WA1
Design all facilities at the Well Pad Site to withstand periodic inundation and receive an Industrial Activity Storm Water Permit for project operations. (Applicant's H-5)

c) Discharge into surface waters or other alteration of surface water quality (e.g., temperature, dissolved oxygen or turbidity)?	☐	■	☐	☐

Placement of rock fill material along the edges of Cherokee Canal for the new bridge will result in temporary minor turbidity. Bore pits and pipeline trenches will encounter shallow groundwater and will require dewatering. This water will be filtered and discharged to the ground surface away from the work area which without adequate precautions could discharge back into the canals.

Impact WA2
Construction of pipelines at crossings may cause potential disturbance and increase turbidity of waters in ditches and canals.

Mitigation Measure WA2a
Bore crossing where the water body is too wide for culverts or trenching is otherwise not feasible. (Applicant's H-1)

Mitigation Measure WA2b
Trenched crossings may be used where water is likely to be present if a culvert is installed in the ditch across the full width of the construction right-of-way while isolating the working strip during early-spring field preparation. Use sand bags to seal around the ends of the culvert, thereby ensuring that the work area remains isolated from the flowing water while the crossing is trenched during summer construction. (Applicant's H-2)

Mitigation Measure WA2c
Trenched crossings of ditches will only occur if the ditch can be dried out at least 15 days prior to construction. (Applicant's H-3)

Mitigation Measure WA2d
Reestablish the bottoms and sides of all trenched crossings of dry canals and ditches to pre-construction integrity. (Applicant's H-4)

Impact WA3
Gas and produced water disposal well may pass through freshwater zones.

Mitigation Measure WA3
Construct all gas and disposal wells to Division of Oil, Gas & Geothermal Regulation (DOGGR) standards and case wells below the deepest freshwater aquifers. (Applicant's H-6)

Impact WA4
Storm water runoff may affect water quality of surface waters.

Mitigation Measure WA4
A Storm Water Pollution Prevention Plan (SWPPP) must be prepared and implemented as a condition of the General Construction Activity Storm Water Permit. (H-7)

Impact WA5
Discharges of hydrostatic test water may result in potential impacts on turbidity and quality of surface waters.

Mitigation Measure WA5
Prior to the discharge of hydrostatic test water to the drainage canals, samples of the water must be collected and analyzed to verify that it meets RWQCB water quality standards for the discharge. (No Applicant numbered measure)

These measures will reduce impacts on surface water to less than significant.

d) Changes in the amount of surface water in any water body? ☐ ☐ ☐ ■

The project will not affect any surface water bodies in the area.

e) Changes in currents, or the course of direction of water movements? ☐ ☐ ☐ ■

The project will not change currents or the direction of water movements. Some minor changes in flow patterns may occur in small agricultural irrigation and drainage canals by pipeline trenching activities. However, these changes are to be of short duration and will have negligible impacts.

f) Change in the quantity of ground waters, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations, or through substantial loss of groundwater recharge capability? ☐ ☐ ☐ ■

The project will not impact groundwater in the area. Water injection of saline produced water will be into the gas storage reservoir is part of normal operations, thousands of feet below the producing freshwater aquifers. Trenching activities will be shallow and will not intercept any producing ground water aquifers. Any loss in groundwater recharge capability as a result of the equipment pads will be negligible due to the small footprint of these pads. Reinjection of produced water back to a suitable deep aquifer is a common practice subject to permitting by the Division of Oil and Gas & Geothermal Resources (DOGGR).

g) Altered direction or rate of flow of groundwater? ☐ ☐ ☐ ■

The project will not affect the groundwater aquifers through additions or withdrawals and therefore will not alter groundwater flow directions.

h) Impacts to groundwater quality? ☐ ☐ ☐ ■

The project will not affect groundwater aquifers either through additions or withdrawals and, therefore, will not alter groundwater quality conditions. The water injection wells will be constructed so that the producing groundwater aquifers will cased off to ensure that the produced saline water is injected thousands of feet below freshwater. These construction details are included in the Division of Oil and Gas & Geothermal Resources injection well application.

i) Substantial reduction in the amount of groundwater otherwise available for public water supplies? ☐ ☐ ☐ ■

The project will not affect groundwater aquifers either through additions or withdrawals and therefore will not alter the groundwater supplies.

V. AIR QUALITY.

Environmental Setting

The proposed project is located in the Northern Sacramento Valley Air Basin (NSVAB). The southern portion of the Sacramento Valley, which includes the metropolitan area of Sacramento, is also part of the same physical basin, but has been separated from the NSVAB for air quality planning purposes because of the generally higher pollution levels and greater number of sources in the southern part of the basin. The northern part of the basin receives pollution transported north from the Sacramento metropolitan area, and is often subjected to inversion layers that generate elevated levels of ambient air pollution.

The NSVAB is designated as a non-attainment area for federal and state ozone Ambient Air Quality Standards (AAQS), and for the state standard for particulate matter less than 10 microns (PM10). All other pollutants for which there are AAQS are in attainment or unclassified in the NVSAB. Infrequent exceedances of the ozone and PM10 standards have been recorded in the NVSAB area over the past five years, at monitor locations in the general area of the Project.

In the project area, the Butte County Air Quality Management District (AQMD) is responsible for the regulation and control of air emission sources. The AQMD has adopted regulations and rules toward this end, including permit requirements for new "stationary sources" of air emissions.

Air emissions associated with the construction and operation of the project are discussed in detail in Section 4 of the PEA. Maximum emissions estimates are provided in Tables 4-2 (construction), and Tables 4-5 through 4-7 (operation).

Would the proposal:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Violate any air quality standard or contribute to an existing or projected air quality violation?	☐	■	☐	☐

Impact AQ 1
State and/or federal air quality standards may be impacted by emissions of air pollutants during construction and operation of the Project, using thresholds in BCAQMD regulations and Indirect Source Review Guidelines as significance criteria.

Mitigation Measure AQ 1
The Proponent will work with the AQMD to design and construct the project components, and will obtain an Authority to Construct and an Authority to Operate from the AQMD for the project. The design of the project will incorporate mitigation measures (such as Best Available Control Technology) to ensure that AQMD requirements are met. Applicant's mitigation measure A-12, utilizing dry, low-NOx technology, will satisfy the BACT criteria. BCAQMD may require a more stringent control technology in their Authority to Construct. Impacts during construction will be minimized by utilizing the Applicant's mitigation measures A-8 through A-11. In addition, the Proponent will undertake a range of mitigation measures to limit the production of fugitive dust from construction activities (Applicant's A-1 through A-7):

- *Apply water to disturb areas as necessary to reduce dust when vehicle traffic is present during preconstruction through restoration.*
- *Cover open haul trucks with tarps both on and off the work site.*

- *Use paved roads for construction vehicles access to the construction right-of-way wherever possible.*
- *Limit vehicle speeds to 20 mph on unpaved construction access roads and the construction right-of-way, or as required to control dust.*
- *Limit vehicle speeds on West Liberty Road to 20 mph and apply water regularly to control dust.*
- *Remove any soil or mud deposited by construction equipment on paved roads near the egress from unpaved areas, or provide stabilized construction entrances from paved roads.*
- *Stabilize disturbed areas following the completion of construction.*

The issuance of the Authority to Construct and Authority to Operate documents will be confirmation that the Project will not exceed any state or federal air quality standards.

b) Expose sensitive receptors to pollutants? ☐ ☐ ☐ ■

The closest sensitive receptor to the Project sites (a residence) is approximately 4,500 feet away from the emission sources, and will not be affected by the emissions. By meeting state and federal air quality and emission standards, the project will not expose sensitive receptors to pollutants.

c) Alter air movement, moisture, or temperature, or cause any change in climate? ☐ ☐ ☐ ■

The air emissions from this Project are not of the magnitude that will affect air movement, moisture, temperature, or cause any change in climate.

d) Create objectionable odors? ☐ ■ ☐ ☐

Impact AQ 2
The processing of odorized natural gas will result in the odor of natural gas at, and in the immediate vicinity of the Remote Facility Site. Odorized natural gas will be emitted from piping components such as valves and flanges (fugitive emissions), and discharge of gas through the relief vent during emergency situations.

Mitigation Measure AQ 2
Piping components at the Remote Facility will be maintained to minimize leakage of odorized gas (Applicant's A-15 and A-16). Most piping connections at the facility will be welded, if possible (Applicant's A-14). Valves, flanges, and other piping components will be subject to a quarterly Inspection and Maintenance program to identify and fix leaking components (Applicant's A-13). It is anticipated that no more than two emergency blowdown situations will occur each year at the Remote Facility. Use of the relief vent will be minimized through routine maintenance at the facility. In the case of both the fugitive emissions and the relief vent emissions, odorized gas in the vicinity of the emission source will be quickly dissipated by even light winds, and it is expected that odors will be present only in the immediate vicinity of the Remote Facility.

These measures will reduce odor impacts to less than significant.

VI. TRANSPORTATION/CIRCULATION.

Environmental setting

Several state highways and local roads provide access to the project area. East of the Sacramento River the primary access to the project is via State Route 99 through Gridley and the Gridley-Colusa Highway. Access to the Well Pad Site is from the south via North Butte Road and the private road to and through the Wild Goose Club area.

Currently, the Colusa Highway, Pennington Road, and West Liberty Road have a "Level A" Level of Service as Percent of Capacity rating. Level A represents free flow and indicates that only 60 percent or less of the Colusa Highway's traffic volume capacity is currently being utilized. The other roads in the project area also do not experience significant traffic congestion. West Liberty Road is usually used by farmers accessing their fields, the caretaker at the duck club and fishermen using the road to access the 833 Canal. The existing bridge over the Belding Lateral (See Figure 2) has weight restrictions of 12 tons per vehicle, 20 tons per semi-trailer combination, and 22 tons per truck and full trailer.

Would the proposal result in:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Increased vehicle trips or traffic congestion?	☐	■	☐	☐

During construction when maximum employment reaches approximately 120 workers, primary traffic flow to and from the project area will result from daily construction employee commuter trips. Secondary traffic flow will be generated by trucks delivering pipe and other equipment to the Remote Facility Site and Well Pad Site. Approximately 260 truck trips are anticipated for the delivery of construction materials and supplies during the course of construction. Pipeline construction along West Liberty Road will create minor delays of several minutes while construction equipment moves aside to allow traffic to pass.

Heavy equipment could cause some physical damage to county roads and bridges. The bridge on West Liberty Road over the Belding Lateral has weight restrictions prescribed by the California Department of Transportation. Construction traffic exceeding these restrictions may damage the bridge structure.

During operation, up to 10 employees will be stationed at the Remote Facility Site to operate and maintain the facilities, with only five employees on duty at any time. The additional commuter traffic associated with these employees is not considered a significant impact.

Impact T1
Localized traffic congestion in the immediate vicinity of the Well Pad Site, Remote Facility Site, and the pipeline right-of-way could occur during project construction.

Mitigation Measure T1
To minimize the impacts of construction traffic and potential damage to county roads, WGSI has prepared a Transportation Management Plan, which sets forth the following measures to be implemented (Applicant's T-1 through T-6):

- *Coordinate the timing and route selection for movement of heavy equipment and truck traffic on county roads with the Butte and Sutter County Road Departments to minimize impacts.*

- *Repair any damage to county roads and bridges or private roads caused by project construction activities.*
- *Coordinate construction activities with county officials, landowners and lessees to minimize disruption to local traffic and movement of agricultural equipment.*
- *Obtain an Encroachment Permit from Butte County for the pipeline construction activities in the county road right-of-way.*
- *Regularly maintain the gravel surface on West Liberty Road to county standards during construction.*
- *Provide breaks in spoil piles, trench or pipe strings to accommodate field access during construction.*

Through implementation of *Transportation Management Plan* and close coordination with the Butte and Sutter County Road Departments, potential construction traffic and road impacts on the lightly traveled county roads and agricultural roads would not be considered significant.

Impact T2
Heavy equipment could cause physical damage to bridge over Belding Lateral.

Mitigation Measure T2
Cost-share with Butte County Public Works Department to upgrade the weight capacity of the West Liberty Road bridge by reconstructing the bridge support structure. (Applicant's T-7)

The county estimates it will take its crews approximately one week to complete this work, during which time the road will be closed to traffic. Affected property owners on West Liberty Road will be provided access around the construction site during bridge construction.

b) Hazards to safety from design features (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	■

The project does not include any transportation elements that may result in hazards from safety design features. Use of farm equipment on existing roads is very common during spring field preparation and during late summer rice harvest. Construction activities, as scheduled, will avoid these use periods to the greatest extent possible.

c) Inadequate emergency access or access to nearby uses?	☐	☐	☐	■

There will be little, if any, interference with emergency service providers. Construction will be in areas of low population and uncongested traffic. A portion of West Liberty Road will be used for construction, all other county roads will not be crossed by the project. Access to all residences near the project will be maintained at all times.

d) Insufficient parking capacity on-site or off-site? ☐ ☐ ☐ ■

Parking for construction employees will be provided at the staging area at the Remote Facility Site. Once the project is operational, sufficient employee parking will be provided at the Remote Facility Site.

e) Hazards or barriers for pedestrians or bicyclists? ☐ ☐ ☐ ■

There is little pedestrian or bicycle use in the area, and the project will not create any hazards of barriers to these activities.

f) Conflicts with adopted policies supporting alternative transportation (e.g., bus turnouts, bicycle racks)? ☐ ☐ ☐ ■

The project is consistent with county-wide transportation policies.

g) Rail, waterborne or air traffic impacts? ☐ ☐ ☐ ■

The project will not affect rail, waterborne or air traffic.

VII. BIOLOGICAL RESOURCES.

Environmental setting

The primary land uses in the immediate project area are irrigated agricultural "wet" grains such as rice and millet, and managed wetlands for waterfowl, with open water areas, riparian borders, and limited inclusions of unmanaged wetlands. The wetlands are of several types. Upland habitat is relatively scarce in the area, and mainly occurs on levee roads or structure pads, or as infrequent areas of non-native annual grassland.

All habitat types within the project boundaries are discussed in detail with associated plant and wildlife species information in Section 5 of the PEA, and in the Preliminary Wetland Delineation. Figure 5-1 of the PEA shows the land uses and habitat types crossed by the project. Habitat acreages are presented in Table 5-2.

Activities of the proposed project that could affect biological resources include:

- Construction of a well pad in managed wetland and riparian habitat.
- On-site removal of soil from three upland sites that will be converted to wetland.
- On-site removal of soil from Goose Island that is currently a wetland.
- Installation of a new bridge over Cherokee Canal in managed wetland and riparian habitat.
- Construction of a new access road through managed wetland and riparian habitat.
- Installation of four miles of 18-inch-diameter pipeline, where the route traverses through both managed wetland and agricultural land.
- Upgrade of an existing bridge on West Liberty Road over an irrigation canal.

Two special status plant species and seventeen special status wildlife species are known to occur or have potential to occur in habitat affected by proposed project activities. Refer to Figure 1 of the Biological Resources Mitigation and Monitoring Plan (BRMMP), attached, for locations of sensitive species identified during surveys and historical sighting locations, and to Table 1 of the BRMMP for additional special status species that could occur in the project area.

The California Public Utilities Commission staff participated in and directed an independent review of the Applicant's biological evaluation. Determination of significant biological impacts and the progressive development of mitigation measures was conducted by the Commission staff and consultants in close consultation with and under the guidance of appropriate resource agencies, including the Army Corps of Engineers, the Environmental Protection Agency, the US Fish and Wildlife Service, and the California Department of Fish and Game.

Would the proposal result in impacts to:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Endangered, threatened, or rare species or their habitats (including but not limited to plants, fish, insects, animals, and birds)?	☐	■	☐	☐

The following species (state or federally listed, as well as other special status species) were determined to have potential spring and summer habitat present at the site, and therefore may be affected by the proposed project activities during construction. These effects would be significant unless proposed mitigation is incorporated.

Special Status Plants
- California hibiscus
- Little mouse-tail

Aquatic Reptiles
- Northwestern pond turtle
- Giant garter snake

Nesting Birds
- White-faced ibis
- Black tern
- Swainson's hawk
- Northern harrier
- Western yellow-billed cuckoo
- Tricolored blackbird

Roosting Bats
- Pale Townsend's big-eared bat
- Pacific western big-eared bat
- Small-footed myotis
- Long-eared myotis
- Fringed myotis
- Long-legged myotis
- Yuma myotis

Note: Two special status fish species, spring run Chinook salmon, and Sacramento splittail, have potential habitat in the project area but it has been determined that they would not be affected by the project.

BR1 Special Status Plants

Two special status species are known to be present in the project area, California hibiscus, and Little mouse-tail.

Impact BR 1
Project construction could cause loss of individuals or populations of special status plant species and degradation or loss of special habitat.

Mitigation Measure BR 1a
Before start of project construction in appropriate habitat areas, a floristically-timed survey for presence of California hibiscus within the project impact zone shall be conducted by a qualified botanist. See Table 4 of BRMMP for locations to be surveyed and preconstruction survey schedule. Individual plants and clusters identified during the survey shall be clearly marked and protected during construction. Where individual plants and clusters cannot be feasibly avoided, a tally shall be made of the total number to be destroyed by project construction. Plants to be removed may be excavated with a sufficient amount of topsoil to ensure successful revegetation, reserved, and re-planted in the same location after construction is completed. Or, seed may be collected from the removed plants and replanted in the same location after construction is completed. If it is not feasible to re-plant in the same location, the plants and/or seeds shall be transplanted or planted in another appropriate wetland revegetation area of the project. If it is not possible to salvage plant material from the plants to be removed, then California hibiscus seed or cuttings shall be collected from the nearest location to the impacted areas, or rooted plants shall be obtained from a nearby nursery for the revegetation. In any case, the number of plantings and/or transplantings shall be such that the number of California hibiscus plants or clumps remaining after monitoring for success must be at least equal to those removed by the project. (No Applicant numbered measure.)

Mitigation Measure BR 1b
Before start of project construction, clay flat areas supporting populations of Little mouse-tail shall be clearly marked by a qualified botanist as exclusion zones on construction plans and shall be marked in

the field with orange fencing. Project activities will avoid these zones. (No Applicant numbered measure.)

BR 2 Aquatic Reptiles

Suitable habitat for two special status aquatic reptiles is present in the project area; Giant garter snake, and Northwestern pond turtle. The turtle is known to be present.

Impact BR 2
Project construction could cause temporary degradation or permanent loss of habitat for Giant garter snake and Northwestern pond turtle.

Mitigation Measure BR 2a
Before ground disturbance activities begin, the Specialty Resource Monitor shall provide Worker Environmental Training for all project workers. The Specialty Resource Monitor shall meet minimum qualifications including a degree in natural sciences, two years experience as an inspector on pipelines, knowledge of trench and bore crossings, wetland issues and storm water requirements, and specifically authorized by CDFG/USFWS for Giant garter snake and Northwestern pond turtle. The training shall, include discussions on special status species identification, habitat requirements, mitigation measures, and worker responsibilities regarding the Giant garter snake and Northwestern pond turtle in particular as well as other special status species with potential to occur in the project area. (Applicant's B-28, Revised)

Mitigation Measure BR 2b
During spring field preparation, pipeline corridor strips in rice fields shall be dried out with temporary checks (dams) to prevent Giant garter snakes from using them during construction. The checks will be removed before October 1 to prevent usage as winter hibernacula by the snakes. A qualified wildlife biologist with appropriate CDFG and USFWS scientific permits shall monitor the removal of checks to ensure that no Northwestern pond turtles or Giant garter snakes are taken or trapped. (Applicant's B-20, Revised)

Mitigation Measure BR 2c
To avoid direct impacts to habitat of the aquatic reptiles, a shaft for the pipeline shall be bored beneath Cherokee Canal, the 833 Canal, and all open ditches and channels containing water at the time of construction, instead of excavating open trenches at these locations. (Applicant's B-19, Revised)

Mitigation Measure BR 2d
The Environmental Inspector shall ensure that all work areas, including ditches that are to be trenched for the pipeline, are dry for a minimum of 15 consecutive days before start of construction, to allow any Giant garter snakes a chance to escape. (Applicant's B-21, B-26, Revised)

Mitigation Measure BR 2e
Within three days before start of construction in any area, a qualified wildlife biologist shall survey the project corridor for Giant garter snake and Northwestern pond turtle. If Giant garter snakes or turtles are found, they shall be removed by a biologist with appropriate CDFG and USFWS permits to suitable habitat away from the project, and wildlife biologists from CDFG and USFWS shall be notified. If a specific authorization is granted to allow a non-permitted biologist to relocate the reptiles, documentation of such a specific authorization shall be provided to CPUC in advance of the survey.(Applicant's B-22, B-25, Revised)

Mitigation Measure BR 2f
During construction, a qualified wildlife biologist shall monitor construction and shall check all excavation areas and open trenches each morning, at a minimum, to ensure that no Northwestern pond turtles or Giant garter snakes are taken or trapped. If Giant garter snakes or turtles are found, they shall be removed by a biologist with appropriate CDFG and USFWS permits to suitable habitat away from the project, and wildlife biologists from CDFG and USFWS shall be notified. If a waiver is granted to allow a non-permitted biologist to relocate the reptiles, documentation of such waiver shall be provided to CPUC in advance of the survey. (Applicant's B-24, Revised)

Mitigation Measure BR 2g
Within two weeks following construction disturbance at any ditch or canal, the banks shall be restored to original contours using stockpiled native topsoil, to prevent permanent habit loss for Giant garter snake. (Applicant's B-23, Revised)

Mitigation Measure BR 2h
Opportunities for winter hibernacula sites for Giant garter snake shall be created at the well pad by installing a four foot high berm and incorporating angular rock and existing concrete rubble onto the north-facing side of the berm, as detailed in the Biological Assessment of the PEA, page 32. (Applicant's B-27, Revised)

BR 3 Nesting Birds

Several special status bird species have potential summer foraging, cover, and nesting habitat in the project area. They include White-faced ibis, Black tern, Swainson's hawk, Northern harrier, Western yellow-billed cuckoo, and Tricolored blackbird.

Impact BR 3
Project construction in occupied habitat of special status bird species could cause disruption of breeding and nesting activities and loss of a year's reproductive effort.

Mitigation Measure BR 3a
Within 60 days before start of project construction, appropriately-timed surveys for breeding activity or active nests of special status bird species shall be conducted in appropriate habitat within 100 feet of all project areas (½ mile radius for Swainson's hawk), by a qualified wildlife biologist. See Table 4 of BRMMP, page 23, for preconstruction survey schedule. (Applicant's B-16, Revised)

Mitigation Measure BR 3b
If breeding activity or one or more active nests of special status bird species is discovered during the preconstruction surveys, wildlife biologists from CDFG and/or USFWS shall be consulted, as appropriate, for modification of construction techniques or construction schedule to avoid impact to the species. At minimum, such locations shall be marked, protected and avoided before and during construction activities that take place during the sensitive reproductive period. If necessary, construction will be delayed in the immediate vicinity until young have fledged. (Applicant's B-17, revised).

Mitigation Measure BR 3c
If soil conditions are sufficiently dry to support equipment, habitats supporting tules and dense vegetation that will be impacted by project activities will be mown before the start of breeding seasons for Northern harrier and Black tern, to prevent these species from nesting in the impact zone during construction periods. See Table 4 of BRMMP, page 23, for the avoidance windows. (Applicant's B-18)

BR 4 Roosting Bats

Several special status bat species have potential foraging habitat in the project area and potential summer roosting habitat under the West Liberty Road bridge. These species include Pale Townsend's big-eared bat, Pacific western big-eared bat, Small footed myotis, Long-eared myotis, Fringed myotis, Long-legged myotis, and Yuma myotis.

Impact BR 4
Project construction could cause temporary disruption of summer roosting or maternity colonies of special status bat species, or permanent abandonment of an area by the species.

Mitigation Measure BR 4a
During the last half of March, a qualified wildlife biologist shall conduct a preconstruction survey of the West Liberty Road bridge for special status bat species. If no evidence of bats is found, temporary barriers shall be installed to prevent bats from colonizing the bridge before or during construction. If bat species are found, wildlife biologists from USFWS shall be notified and consulted for specific recommendations. (No Applicant numbered measure)

b) Locally designated species (e.g., heritage trees)?	☐	☐	☐	■

No locally designated species occur in the project area.

c) Locally designated natural communities (e.g., oak forest, coastal habitat, etc.)?	☐	☐	☐	■

No locally designated natural communities occur in the project area.

d) Wetland habitat (e.g., marsh, riparian, and vernal pool)?	☐	■	☐	☐

BR 5 Wetlands

The project area supports several wetland habitat types including freshwater marsh, wet meadow, riparian habitat, and clay flats; as well as open water habitats. Project activities could cause temporary disturbance or permanent loss of wetlands. These effects would be a significant impact without appropriate mitigation. *(Refer to Wetland Mitigation and Monitoring Plan, Rev 1/97)* See Figures 6 and 7.

Construction of the proposed project will cause approximately 17.6 acres of temporary wetland disturbance:

Installation of pipeline	9 acres Freshwater Marsh
Soil excavation from Goose Island	5.05 acres Freshwater Marsh
	3.54 acres Wet Meadow
	17.59 acres Temporary Disturbance

Construction of the proposed project will also cause approximately 1.6 acres of permanent wetland loss:

Construction of well pad	1.21 acres Freshwater Marsh
Installation of new bridge and access road	0.12 acres Freshwater Marsh
	0.23 acres Wet Meadow
	1.56 acres Permanent Loss

Impact BR 5T
Project construction will cause temporary disturbance of wetland habitat, potential changes to water quality and aesthetic values, alteration of composition of wetland vegetation, and could substantially diminish or degrade important wildlife habitat.

Mitigation Measure BR 5Ta
To minimize impacts to water quality and wildlife, construction activities in wetlands will coincide with the driest period - approximately mid-June through mid-August. (Applicant's Measure B-1)

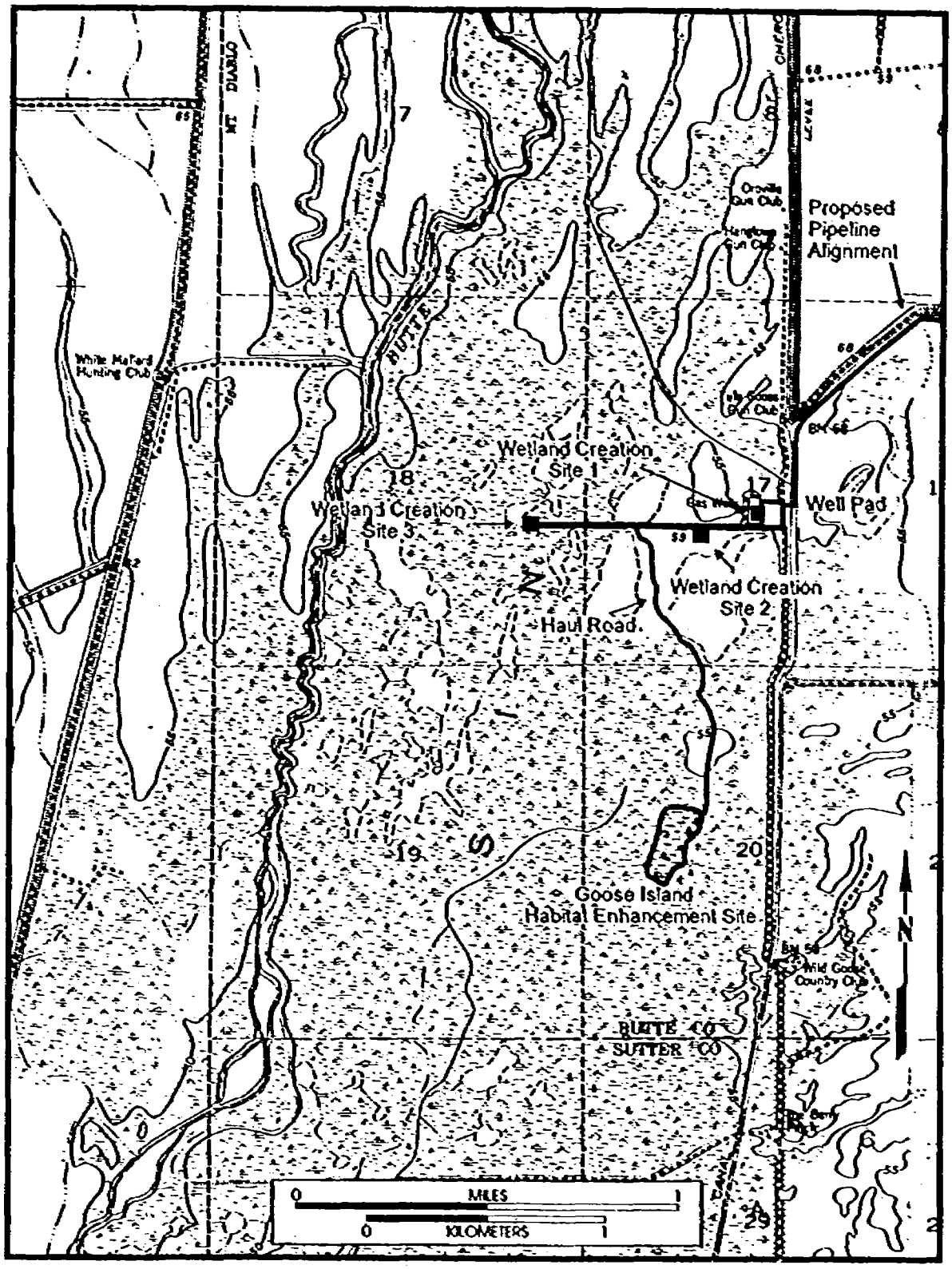


Figure 6. Well Pad and Wetland Creation/Habitat Enhancement Sites
(USGS Sanborn Slough, 1973)

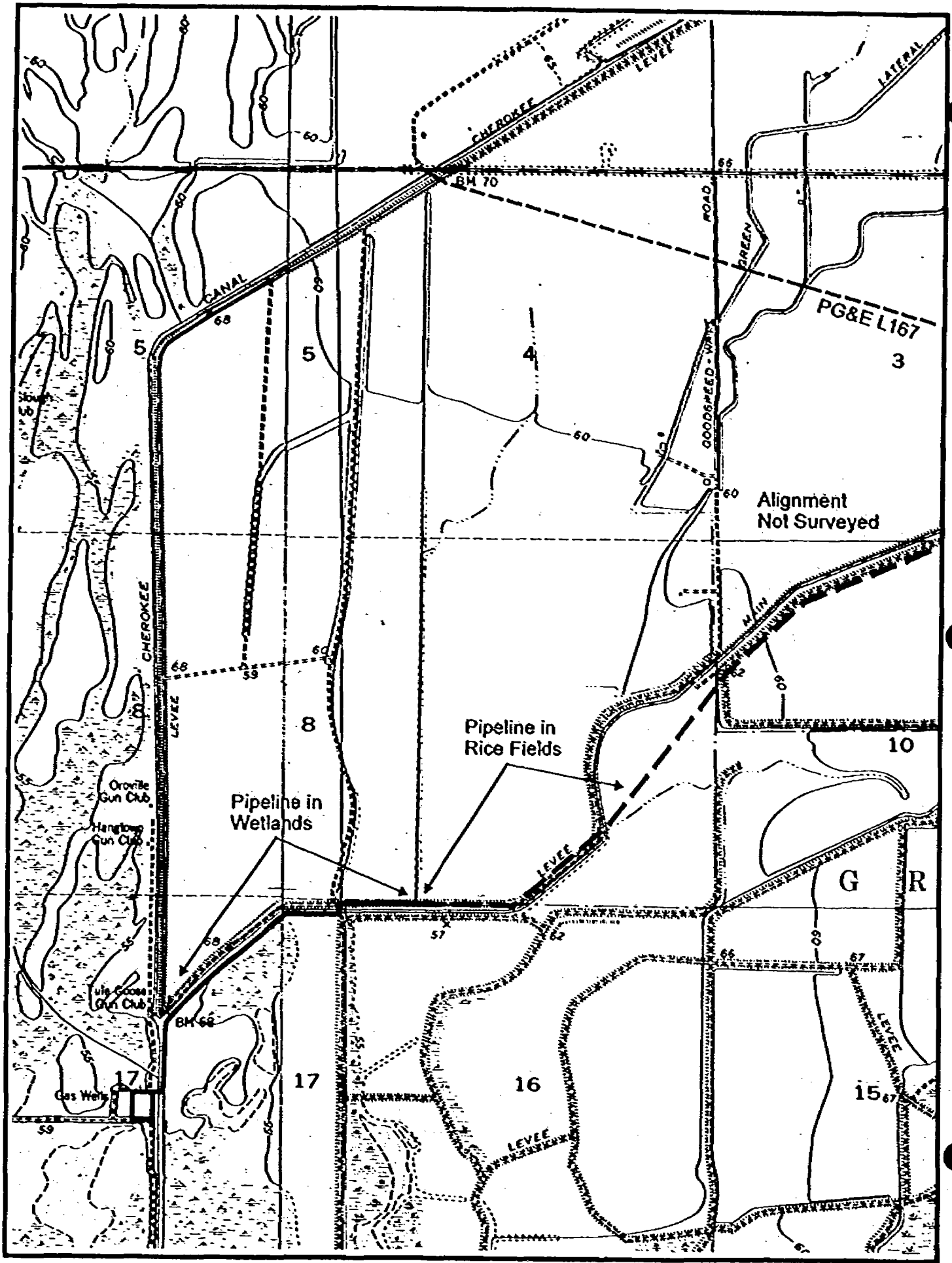


Figure 7. Pipeline Route In Wetlands

Mitigation Measure BR 5Tb
To avoid additional indirect wetland impacts, the edges of construction right-of-way in each area shall be clearly staked and surveyed in at a minimum of 100 foot intervals before start of construction in that area. (Applicant's Measure B-2, Revised)

Mitigation Measure BR 5Tc
To ensure swift habitat recovery in temporary disturbance areas, vegetation shall be cut at ground level wherever possible, leaving existing root systems intact. (Applicant's Measure B-3)

Mitigation Measure BR 5Td
To minimize riparian tree disturbance in areas to be trenched, trees shall be avoided where possible, and where unavoidable, removal of trees, stumps, and root systems shall be limited to the area directly over the trench. (Applicant's Measure B4, Revised)

Mitigation Measure BR 5Te
To ensure swift recovery of wetland vegetation, 1 foot of topsoil shall be removed, segregated, and replaced after construction, in wetland areas disturbed by trenching. These areas shall then be returned to original contour, and disced to allow for natural revegetation (Applicant's Measure B5, B-9, Revised)

Mitigation Measure BR 5Tf
To minimize compaction and enhance recovery of wetlands, where saturated soils are present or some standing water remains, wide-track or balloon tire construction equipment shall be used, or normal construction equipment shall be operated off of temporary timber pads, prefabricated equipment pads, or geotextile fabric overlain with gravel fill. Such temporary pads, if used, shall be removed after construction. (Applicant's Measure B6, B-7)

Mitigation Measure BR 5Tg
To minimize wetland degradation, cleanup activities shall be initiated immediately following trench backfilling. (Applicant's Measure B6, B-7)

Mitigation Measure BR 5Th
To ensure permanent revegetation of disturbed wetland and riparian areas, remedial action shall be taken wherever natural restoration has not successfully begun within one growing season, as judged by a qualified wetland biologist. This action may include regrading, topdressing with native soil, and planting of native plugs, seeds, or saplings, as necessary. (Applicant's Measure B10, revised)

Mitigation Measure BR 5Ti
To minimize disturbance to riparian vegetation during pipeline construction, canals, channels and adjacent ditches that support riparian vegetation shall be bored rather than trenched. (Applicant's Measure B11)

Mitigation Measure BR 5Tj
To avoid additional indirect wetland impacts, existing roads parallel to the working strip shall be used for construction access. (Applicant's Measure B12)

Mitigation Measure BR 5Tk
To ensure that accidental spills will not contaminate water bodies or wetlands, all refueling and hazardous materials storage shall be restricted to areas farther than 100 feet from the boundaries of all wetlands, streams and drainages, or refueling shall be limited to designated areas protected with berms. All hazardous materials spills shall be cleaned up immediately. (Applicant's Measure B13)

Mitigation Measure BR 5TI
To prevent degradation of unaffected wetlands by accidental inflow of saturated spoil from adjacent trench excavation, trenches shall be dewatered and sediment barriers shall be installed and maintained within the right-of-way, wherever such potential exists. (Applicant's Measure B14, B15)

Impact BR 5P
Project construction will cause permanent loss of wetland habitats.

Permanent impacts to wetlands include loss of 1.56 acres of freshwater marsh/wet meadow habitat as a result of construction of the Well Pad Site and the access road and bridge. Mitigation in the form of wetland compensation and habitat enhancement is required under Section 404 of the Clean Water Act, as a condition of the Section 404 permit.

Mitigation Measure BR 5Pa
Permanent wetland loss shall be compensated by implementation of the ACOE and USFWS-approved Wetlands Mitigation and Monitoring Plan, revised January 1997. The detailed plan provides for the following actions:(Applicant's B-29, Revised)

- *Creation of new wetlands, resulting in an overall project net increase. The increase wetland acreage will take place at excavation sites ("Wetland Creation Sites") 1,2, and 3, refer to Figure 3. This will be accomplished by the removal of upland soil for the new well pad and allowing the sites to revert to freshwater marsh (for a total of 1.91 acres). In addition, a small amount of clay flat habitat and wetland/riparian scrub will be created on Goose Island. For before and after acreage figures refer to Table 2-2 of the Wetlands Mitigation and Monitoring Plan. The additional wetlands, after compensating for the acreage loss of wetlands at the Well Pad Site and the Bride/Access Road, will result in a total net increase of 0.62 acre of jurisdictional wetlands on the Wild Goose Club property.*

- *Installation of habitat enhancement measures for Giant garter snake at Goose Island and the Well Pad Site.*

e) Wildlife dispersal or migration corridors? ☐ ■ ☐ ☐

The project area is within the northern Sacramento Valley, a part of the Pacific Flyway, which serves as a very important migration corridor for waterfowl.

Impact BR 6
The project may result in short-term impacts to the use of some areas of the corridor by migrating birds during the construction phase.

Mitigation Measure BR 6
Based on coordination and consultation with appropriate resource agencies, the mitigation measures for impact BR 3 ,BR 5T, and BR 5 will reduce these potential impacts to an insignificant level. No additional mitigation measures are necessary.

VIII. ENERGY AND MINERAL RESOURCES.

Environmental setting

The Butte County General Plan Land Use Element provides policies on energy resources, including a policy to encourage the development of natural gas fields and to promote conservation of energy resources.

Would the proposal:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with adopted energy conservation plans?	☐	☐	☐	■

The project as proposed is consistent with the County General Plan energy policies which encourage development of natural gas fields and promote conservation of natural resources. The 1994 California Energy Plan does not include any energy conservation policies applicable to the project. The project will minimize energy consumption to the greatest extent possible in the design of the compressor engines and in all buildings at the Remote Facility Site.

b) Use non-renewable resources in a wasteful and inefficient manner?	☐	☐	☐	■

The project will consume natural gas as compressor fuel. The compressor engines will incorporate best available control technology that will reduce fuel usage and air emissions.

c) Result in the loss of availability of a known mineral resource that would be of future value to the region and the residents of the State?	☐	☐	☐	■

There are no known recoverable mineral resources in the project area.

IX. HAZARDS.

Environmental setting

Natural gas transport and storage safety issues are regulated by the US Department of Transportation (DOT) under 49 CFR Parts 191, 192, and 199, and by the California Public Utilities Commission General Order 112-E. These regulations outline reporting requirements, pipeline construction materials and design standards, corrosion protection, testing requirements, and other areas of safety. Under DOT regulations (40 CFR Part 192), pipelines are required to have written operating, maintenance, and emergency response plans. These requirements are discussed in Section 12 of the PEA.

Would the proposal involve:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) A risk of accidental explosion or release of hazardous substances (including, but not limited to: oil, pesticides, chemicals, or radiation)?	☐	■	☐	☐

Natural gas pipeline and storage systems have the potential for accidental explosion, due to human error or equipment malfunction. In addition, hazardous substances will be used during the construction phase of the project, and also during operations of the system.

Impact HA 1
Potential for accidental explosions of natural gas pipeline and/or storage systems. Hazards associated with use of hazardous substances during construction and operation.

Mitigation Measure HA 1a
The Applicant will incorporate into the construction bid requirements for compliance with local and state fire prevention regulations. The Fire Prevention Plan will include preventative measures, training, and fire control and suppression equipment. Additional details of the Fire Prevention Plan are provided in Section 12.6 of the PEA. The Fire Prevention Plan must be reviewed and approved by local and state fire officials. Acceptance of the Fire Prevention Plan by local and state fire officials is considered to be adequate to demonstrate that construction impacts have been mitigated to insignificance.

The Applicant will prepare and implement an Operating and Maintenance Plan, a Damage Prevention Plan, and an Emergency Response Plan, as required by the federal Department of Transportation (DOT) and the CPUC General Order 112-E (Section 192.615) prior to operations of the project. The facility will not be allowed to operate unless the Emergency Response Plan is deemed acceptable and complete by local and state fire officials. Acceptance of the Emergency Response Plan by local and state fire officials is considered adequate to demonstrate that operational impacts have been mitigated to insignificance. Extensive fire detection equipment will be installed at both the Well Pad Site and the Remote Facility Site. The fire control technology used at intrastate and interstate natural gas compressor stations, which operate continuously at high pressures, will be used at the facility. The project will utilize proven industry technology for monitoring the safety of these high pressure systems, and for dealing with worst-case contingencies as they occur. During normal operations, the Remote Facility Site will be monitored by gas, fire, and vibration sensors which will automatically shut down the facility if unusual conditions are detected.

Mitigation Measure HA 1b
The Emergency Response Plan for the facility, required by the DOT, will further outline fire safety, prevention, and control systems at the Remote Facility (Applicant's P-4). Additional fire suppression

equipment maybe required under the Butte County building permit process, and will be provided for the facility.

Mitigation Measure HA 1c
The handling of hazardous substances during construction and operation of the Project will be managed in accordance with best management practices outlined in the facility's Stormwater Pollution Prevention Plan (SWPPP). In addition, a Hazardous Materials Release Response Plan (HMRRP) will be prepared, as required by the California Health and Safety Code (Applicant's P-2). The HMRRP will identify the types of hazardous substances at the facility site, the types of wastes generated, storage and disposal practices, employee training, and emergency response procedures in case of a spill or release of a hazardous substance. Methanol and waste oils stored at the Remote Facility Site will be placed inside secondary containment systems to prevent the potential release of these materials. Due to the relatively small amount of hazardous substances that will be stored and used during operations, the best management practices to be followed will help ensure that hazardous substances will not have a significant impact on receptors in the Project area or elsewhere.

b) Possible interference with an emergency response plan or emergency evacuation plan? ☐ ☐ ☐ ■

The project will integrate its emergency response plans with other plans in the area, and will not interfere with existing plans.

c) The creation of any health hazard or potential health hazard? ☐ ■ ☐ ☐

The construction and operation of the project may create a potential health hazard, due to the types of hazardous substances to be stored and used, and the natural gas product being handled.

Impact HA 2
Hazardous substances stored and used during construction and operation may present potential health hazards.

Mitigation Measure HA 2
The project will meet strict regulatory requirements regarding the protection of human health during construction and operation of the system. Under the SWPPP and HMRRP described above, hazardous substances will be handled in a safe manner (Applicant's P-2).

These controls will ensure that potential impacts to human health will be insignificant.

d) Exposure of people to existing sources of potential health hazards? ☐ ☐ ☐ ■

There are no known existing health hazards in the project area.

e) Increased fire hazard in areas with flammable brush, grass, or trees? ☐ ■ ☐ ☐

The construction of the pipelines for the project is a potential fire hazard for existing trees, shrubs, and other vegetation.

Impact HA 3
Pipeline construction through nonagricultural areas may pose a threat of fire to existing vegetation.

Mitigation Measure HA 3
The Proponent will incorporate into the construction bid specification requiring the contractor to prepare a Fire Prevention Plan, in compliance with local and state fire prevention regulations (Applicant's P-3). This plan will include preventative measures, training, and fire control and suppression equipment. The Fire Prevention Plan will reduce the potential impact of fire hazard to

existing vegetation to an insignificant level. Additional details of the Fire Prevention Plan are provided in Section 12.6 of the PEA.

X. NOISE.

Environmental setting

Butte County currently use, the Land Use Compatibility for Community Noise Environments table (shown as Figure 11-1 in the PEA) as the local noise compatibility standard. This standard has been adopted from the California General Plan Guidelines, published by the Governor's Office of Planning and Research. Noise levels in Butte County are also regulated by the county's General Plan Noise Element, completed in 1985.

Three residences are located within one-half mile of the proposed pipeline route and facility sites. Use of the area surrounding the Remote Facility Site, the primary source of noise during project operation, is agricultural to the north, and managed wetlands of the Grey Lodge State Wildlife Management Area to the south.

The ambient noise levels at the Well Pad Site and the Remote Facility Site range from 36 dBA to 42 dBA, with maximum levels of approximately 65 dBA during unusual events (such as automobile noise from nearby roadways). The measured ambient noise levels at these site are presented in the PEA, Tables 11-1 and 11-2. Anticipated noise levels from pipeline construction activities range from 89 dBA at 50 feet distance from source to receptor, to 57 dBA at a range of 2,000 feet. Mitigated noise levels from operations at the Well Pad Site and the Remote Facility Site are not anticipated to exceed 75 dBA at the facility property line, or to exceed a 5 dBA increase at any sensitive receptor in the area.

Would the proposal result in:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Increases in existing noise levels?	☐	■	☐	☐

Impact NO 1
The operations at the Remote Facility Site will create noise above the ambient noise level at the site. In addition, construction and drilling activities will also increase noise levels.

Mitigation Measure NO 1a
Release valves and blowdown at the Remote Facility Site will be routed to the relief vent at the facility, which will be designed to produce a maximum of 75 dBA, at the property line at any point in time during a blowdown event. Other noise-producing equipment at the facility, including compressor and gas turbine, will be housed inside frame buildings with significant sound insulation. In addition, acoustical enclosures will be placed around all noise-producing equipment as needed (Applicant's N-3). Based on these measures, noise from the operation of the facility will be dissipated to the ambient noise level prior to reaching the nearest receptor. The ambient noise level in the vicinity of the Remote Facility Site is between approximately 36 dBA and 42 dBA; the mitigation measures to be undertaken at the facility will result in no increase in this noise level at the sensitive receptors in the area.

Mitigation Measure NO 1b
Pipeline construction activities will be limited to daylight hours (Applicant's N-1). Engines in use during construction and drilling will be properly muffled (Applicant's N-2). No significant noise impact is anticipated from construction or drilling activities, which will utilize equipment that produce noise level ranges equivalent to agricultural equipment. Peak hour noise level for pipeline construction will not exceed 85 dBA on a short term basis at the nearest receptor to the Well Pad Site, and will not exceed 70 dBA at all other receptors in the area. Pipeline construction activities will be very short term, and will not produce a significant impact. Impacts of construction and drilling activities upon nearby receptors will be lower than that of the pipeline construction activities.

a) Exposure of people to severe noise levels? ☐ ■ ☐ ☐

Construction and operations at the Remote Facility Site will create noise levels that, without mitigation, would be considered severe to nearby sensitive receptors.

Impact NO 2
Noise from blowdown events or pressure-release valves can be as high as 120 dB per occasion and would be considered severe to nearby sensitive receptors..

Mitigation Measure NO 2
Pressure-release valves and blowdown at the Remote *Facility Site will be routed to the relief vent at the facility, which will be designed to produce a maximum of 75 dBA. The relief vent will be tested after installation to ensure that the vent can meet this noise limitation. These mitigation measures will reduce noise impacts to a level of insignificance (Applicant's N-3)*

XI. PUBLIC SERVICES.

Environmental setting

The Butte County Fire Department provides the primary protection to the county's unincorporated areas. The nearest station is located in Gridley, approximately 6 miles east of the project area and an engine is located at the Gray Lodge Wildlife Area headquarters, approximately 1.5 miles south of the proposed Remote Facility Site. The Butte County Fire Department has the necessary equipment and expertise to suppress a natural gas fire. Butte County police protection is headquartered in Oroville with substations in Biggs, Chico and Magalia, and serves all of unincorporated Butte County. Currently, Butte County has 80 deputies.

Butte County presently operates 10 elementary school districts, 2 high school districts, 4 unified school districts and the Butte Community College District. Butte County public school districts require school impact fees of $0.30 per square foot for new commercial or industrial development. This fee will apply to the compressor and office buildings at the Remote Facility Site, and will be paid prior to issuance of the building permits by the county Development Services Department.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the proposal have an effect upon, or result in a need for new or altered government services in any of the following areas:				
a) Fire protection?	☐	☐	☐	■

Construction activities will have little, if any, effect on the need for fire protection services. Local officials will be consulted prior to construction to review the adequacy of current county per-capita emergency services. During operation, the project will employ up to ten permanent employees. The Butte County Fire Department already has the capability and experience to provide emergency response if a fire or other emergency requiring assistance because of the natural gas well and pipelines throughout Butte County. In cases of emergency, response time is expected to be very short due to the experience of the response personnel and the fire engine located at Gray Lodge.

b) Police protection? ☐ ☐ ☐ ■

Construction activities will have little, if any, effect on the need for police protection services. Local officials will be consulted prior to construction to review the adequacy of current county per-capita emergency services. During operation, the project will employ up to ten permanent employees. There will be little or no impact on the demand for local police services.

c) Schools? ☐ ☐ ☐ ■

Local schools should not be impacted because most of the non-local workers will be at the work site for less than six months. It is assumed that non-local workers will not bring children of school age with them. The permanent staff of ten will be recruited locally if possible and is not likely to increase local school enrollment.

d) Maintenance of public facilities, including roads? ☐ ■ ☐ ☐

Physical damage to county roads and bridges may be caused by heavy equipment. Several of these roads and bridges were constructed to standards established many years ago. Consequently, use of these roads by trucks hauling heavy equipment and compressor components may damage road surfaces, road base and bridges.

Impact PS1
Use of heavy equipment for construction and transportation of pipe and materials may cause significant impact on public roads.

Mitigation Measure PS1
WGSI has prepared a Transportation Management Plan which sets forth measures to be implemented to ensure that existing transportation and access roads are restored or maintained to preconstruction conditions. Implementation of the measures presented in the Transportation Management Plan will reduce construction related impacts on county roads to a less than significant level. (Applicant's T-2, Revised)

e) Other governmental services? ☐ ☐ ☐ ■

The project or the short term employees required for construction activities will not require or affect other County services.

XII. UTILITIES AND SERVICE SYSTEMS.

Environmental setting

PG&E currently serves the project area with electricity and natural gas. The Wild Goose collector line presently operates as a natural gas distribution line along a portion of West Liberty Road. Electric distribution lines are located immediately adjacent to the two proposed above ground facilities. Pacific Bell provides phone services in the project area. The Remote Site Facility will have its own independent well to provide potable water for domestic use and station operations.

In Butte County, the Neal Road Landfill is the central collection and disposal site for the county. The county expects this site to have sufficient capacity for another 15 years of operation. Solid waste from the project will be collected by one of three licensed haulers that transport solid waste to the Ord Ranch Transfer Station in Gridley.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the proposal result in a need for new systems or supplies, or substantial alterations to the following utilities:				
a) Power or natural gas?	☐	☐	■	☐

Utilities present in the project area consists of an overhead electric distribution line and an underground gas distribution pipeline. Project construction could inadvertently contact these facilities, resulting in service interruptions. PG&E will be consulted with during construction to identify utility locations in the field and on construction drawings, so no service disruptions should occur.

During operations, electric service to the Remote Facility Site will be provided from the existing distribution line. PG&E has indicated this line currently has available capacity to serve the maximum anticipated instantaneous electrical load. An electric distribution line is also located immediately adjacent to the Well Pad Site for monitoring equipment and site lighting.

Natural-gas-fueled engines will be used during operation functions, since fuel is readily available, economical and clean burning. While the project will consume natural gas as a fuel, the compressor engines will incorporate state-of-the-art efficiency designs that will reduce usage and air emissions.

The project itself will have a beneficial impact on peak and base period demands for natural gas by core customers of gas in the Sacramento area. The project has the flexibility to store gas during surplus periods and release gas during shortages, thereby maximizing the efficiency of the existing systems. It is acknowledged that injection of large volumes during the summer months will be concurrent with significant use by some noncore natural gas customers in the area (principally agricultural customers); however, the project will not affect gas flow to these noncore customers, and will have no significant impact on these operations.

b) Communications systems?	☐	☐	☐	■

The project would require telephone service at the Remote Facility Site from the existing telephone circuits. Pacific Bell's nearest phone service required to meet project needs is along Pennington Road, one mile east of the Remote Facility Site. This one mile extension would be installed either on existing

PG&E power poles or would be plowed underground along the south side of the road adjacent to the PG&E power line. No adverse impacts are anticipated.

c) Local or regional water treatment or distribution facilities? ☐ ☐ ☐ ■

The Remote Facility Site will have its own independent well to provide potable water for domestic use and station operations. No new water treatment or distribution extensions will be required for the project.

d) Sewer or septic tanks? ☐ ☐ ☐ ■

The Remote Facility Site will have its own independent septic tank and leach field, and will not require the extension of sewer service to the site.

e) Storm water drainage? ☐ ■ ☐ ☐

Storm water drainage will flow into existing natural water courses or into agricultural drainage canals.

Impact US1
Construction activities may cause storm water pollution and degradation of water quality.

Mitigation Measure US1
WGSI has prepared a Storm Water Pollution Prevention Plan (SWPPP) to identify potential pollutant sources, implement storm water pollution prevention measures, and identify measures to manage allowable storm water discharges to ensure that no materials are discharged in quantities that will adversely affect quality of receiving waters. (Applicant's H-7, Revised)

Implementation of measures in the SWPPP would reduce impact to less than significant levels.

f) Solid waste disposal? ☐ ☐ ☐ ■

Approximately 200 pounds per week of nonhazardous waste would be generated during construction. Minimal amounts of solid waste would be generated during operations at the Remote Facility Site. All wastes would be collected by a licensed solid waste disposal company.

g) Local or regional water supplies? ☐ ☐ ☐ ■

The Remote Facility Site would have its own domestic water supply.

XIII. AESTHETICS.

Environmental setting

The project is located in a rural setting dominated by natural-appearing wetland areas and agricultural lands. The visual setting of the area proposed for the Remote Facility Sites is characterized by open, agricultural lands (primarily rice fields) to the east, north and west. To the south is the Gray Lodge Wildlife Management area with tall trees, riparian vegetation and natural appearing wetland areas. As is typical in this agricultural area, views are expansive, broken by the occasional farmhouse and outbuildings or riparian corridors.

The existing visual setting of the Well Pad Site is characterized by natural-appearing managed wetlands on the north, west and south, with wooded riparian vegetation enclosing Butte Creek approximately 1 mile to the west. The riparian corridor of the Cherokee Canal forms the east edge of the Well Pad Site, and a maintenance garage is located just across the drainage channel to the north of the site. The Sutter Buttes dominate the visual background toward the southeast.

The pipeline will cross through wetlands, riparian corridors and farmed lands. The visual character of the pipeline route is similar to the Remote Facility Site.

Would the proposal:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Affect a scenic vista or scenic highway?	☐	☐	☐	■

There are no state or locally designated scenic roads or vistas in the project area.

b) Have a demonstrable negative aesthetic effect?	☐	■	☐	☐

Construction of the equipment and structures associated with the Remote Facility Site would include a 30-foot-high compressor building. The new facility would introduce a utility/industrial feature in the rural setting which would have a negative aesthetic impact.

The 1.5 acre Well Pad Site would include wellheads, small separators and a 20-foot-tall radio antennae. The Wild Goose Club considers its land to be visually sensitive, as their natural appearance contributes significantly to the hunting experience. The Well Pad Site would have a potentially significant impact without the implementation of the mitigation measures presented below.

The clearing and grading required prior to installing the pipeline will be noticeable in vegetated areas. Impacts due to the clearing of vegetation will persist to varying degrees based on the type of vegetation traversed. The route traverses wetland areas and crops where the temporary visual evidence will generally occur through only one growing season. This short period is possible due to the practice of replacing the topsoil (seed base) following construction, the presence of ample water in the wetlands, and the vigorous growth that is typical of herbaceous wetlands vegetation. Consequently, this short-term visual effect is not considered significant.

Impact AE1
Construction of the Remote Facility Site would contrast with the existing aesthetic character of the surrounding landscape and result in an adverse aesthetic impact.

Mitigation Measure AE1
While Butte County does not have architectural requirements or a formal design review process, efforts will be made to blend project facilities with the surrounding landscape. All buildings and aboveground features will be painted a flat-finish neutral color. Site lighting will be hooded and directed toward the interior of the site. Where feasible, building design will emulate other agricultural buildings in the area and pipe segments and valves in the Remote Facility Site will be installed underground or in sub-surface vaults. A landscaped perimeter will visually screen the site on all four sides and a berm will be constructed on the south side along the road. Plant species will include tall-growing trees and shrubs. Much of the landscape container stock will be 5-gallon size or larger to provide better initial screening and allow the ultimate screening provided by mature species to occur sooner. Specific planting plans and designs will be coordinated with the property owner and the Gray Lodge manager to ensure these materials provide wildlife opportunities while not adversely affecting the adjacent rice farming. These plans will be included in a detailed Visual Mitigation Plan. (Applicant's V-3, Revised)

With the implementation of these mitigation measures, the visual impact of the Remote Facility Site will be less than significant.

Impact AE2
Construction of the Well Pad Site will contrast with the surrounding natural area and result in an adverse aesthetic impact.

Mitigation Measure AE2
Since the quality of the hunting experience in the surrounding area is predicated on a natural setting, mitigation is proposed to minimize the visual presence of the Well Pad Site. The project applicant has entered into an agreement with the Wild Goose Club to prepare a landscape plan to eliminate potentially intrusive views. This plan will provide for the construction of an earthen perimeter berm around the Well Pad Site to conceal wellheads and equipment. Native vegetation will be planted outside and on top of the berm to further conceal the facility. These plans will be included in a detailed Visual Mitigation Plan. Emergency site lighting will be hooded and directed toward the interior of the site. With the implementation of these mitigation measures, the Wild Goose Club has determined that the presence of the Well Pad Site would not represent a significant visual impact to its members and would not adversely affect their hunting experience. (Applicant's V-2, Revised)

With implementation of these mitigation measures visual impact of the Well Pad Site will be less than significant.

c) Create light or glare? ☐ ☐ ☐ ■

Currently light and glare is minimal in the project area due to its rural character. Except for occasional passing vehicles and local residences, few man-made light sources are present in the area where permanent aboveground structures will be located. All lighting at both sites will be hooded and directed toward the interior of the sites, minimizing the effects of light and glare to nearby residences.

XIV. CULTURAL RESOURCES.

Environmental setting

The proposed project is located within the Sacramento Valley between the Southern Cascade Range and the Sierra Nevada approximately 50 miles north of the City of Sacramento in Butte County. The Sutter Buttes, a notable geological/geographical landmark that rises from the Sacramento Valley floor, are located several miles southeast of the project.

The area is part of the northern Sacramento Valley, an area with a long history of human occupation from 10,000 B.C. to the present. This region includes valley floor and associated wetlands and riverine settings and foothill areas. The ecological zones of the project area provided a favorable environment during the prehistoric period, with both riverine and upland resources available to the native population.

Native American groups that may have used the project area occupied a specific home territory with several more or less permanent settlements. They also occupied a larger number of seasonal campsites for an annual round of subsistence activities, which focused on gathering plants and hunting animals.

During the Hispanic Period, vast land grants, ranging in size from 17,000 to 26,000 acres, were located for the most part along the Sacramento and Feather rivers to the east, west and north of the project area. The proposed project area was not within a rancho. Following the Mexican War of 1846 to 1848, California was ceded to the United States.

In the American Period, primary themes in the area's development include agriculture, reclamation, irrigation, hunting, and wildlife management, with secondary motifs of mining, transportation and urbanism.

Would the proposal:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Disturb paleontological resources?	☐	☐	■	☐

The project area contains channel or basin alluvial deposits which typically have very low sensitivity for significant paleontological resources. Should paleontological resources be discovered during project excavation, work will be stopped in the immediate area and a qualified paleontologist will be called to determined the appropriate treatment.

b) Disturb archaeological resources?	☐	☐	■	☐

A record search of the project area undertaken as part of the cultural resources assessment indicated that no prehistoric or historic resources were known to be located within the area. Intensive field surveys of the project area did not locate significant prehistoric archaeological resources. Mitigation measures are in place to address discoveries during construction. Areas not subject to previous archaeological survey will be monitored by an archaeologist during construction.

c) Affect historical resources? ☐ ■ ☐ ☐

A field survey of the project area identified several historic structures and features in the area. One historic property, the Cherokee Canal, Lateral A, was recorded and identified as potentially eligible for listing on the National Register of Historic Places (NRHP) as a contributing element to the historic district/landscape comprising Reclamation District 833 and the Sutter-Butte Canal Co. Water System.

Impact CR1
Construction of the project could potentially impact the Cherokee Canal, Lateral A which is eligible for listing on the NRHP.

Mitigation Measure CR1
Avoidance of the resource will be implemented, including the use of passive measures (fencing, signage, etc.). Construction techniques such as jack-and-bore will be used to bore beneath existing canal features, and work areas will stay a minimum of 15 feet away from the toe of any canal or levee bank to avoid damaging the structure. In addition, a Memorandum of Agreement and associated Historic Properties Management Plan has been prepared to address specific data recovery issues for historic and prehistoric resources should such resources be discovered during construction. (Applicant's C-1 through C-8, Revised)

d) Have the potential to cause a physical change which would affect unique ethnic cultural values? ☐ ☐ ■ ☐

A review of existing literature and records did not indicate the presence of areas of unique cultural value, or religious or sacred areas within the immediate project vicinity. There are no known sites within or adjacent to the project area that would qualify for listing on the National Register as traditional/cultural properties.

e) Restrict existing religious or sacred uses within the potential impact area? ☐ ☐ ■ ☐

A review of existing literature and records did not indicate the presence of areas of unique cultural value, or religious or sacred areas within the immediate project vicinity. There are no known sites within or adjacent to the project area that would qualify for listing on the National Register as traditional/cultural properties.

XV. RECREATION

Environmental setting

The California Department of Fish and Game manages the Gray Lodge Wildlife Management Area just south of the Remote Facility Site and the Upper Butte Basin Waterfowl Management area north of the project in the Butte Sink. These areas provide wildlife viewing opportunities and hunting as part of their primary function of waterfowl and habitat management. Private-governmental cooperative programs provide recreational hunting for waterfowl and upland game birds (pheasant) on some of the private lands in the project vicinity, and many property owners lease their rice fields to hunters during the fallow fall and winter months. Duck hunting season typically starts in mid-October and ends by the end of January. Pheasant season is usually one month long, beginning in early- to mid-November. There are no local, state or federal recreation areas in the project vicinity. A small undeveloped parcel of Gray Lodge property is located along the 833 Canal at the end of West Liberty Road. This informal site is used occasionally by fishermen, primarily on the weekends.

Would the proposal:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Increase the demand for neighborhood or regional parks or other recreational facilities?	☐	☐	☐	■

The construction and operation of the project creates no need for an increase of neighborhood or regional parks or other recreational facilities.

b) Affect existing recreational opportunities?	☐	■	☐	☐

The managed waterfowl areas and rice fields in the project area are currently used for recreational hunting for ducks and pheasant. Project construction has been scheduled to avoid duck hunting season and will not impact recreational hunting. Construction and operation of the Well Pad Site will remove 1.5 acres of recreational hunting land at the Wild Goose Club. The Well Pad Site is at the very northeast corner of Club property and not in an area that is actively hunted. Periodic visitation of the Well Pad Site by operational personnel during duck hunting season will only occur during non-hunting afternoon hours. The loss of 1.5 acres of recreational hunting land at this site is not significant.

The Wild Goose Club considers its land to be visually sensitive, as their natural appearance contributes to the hunting experience. Since the quality of the hunting experience in the surrounding area is predicated on a natural setting, construction of the facilities within the Wild Goose Club could impact the hunting experience.

Development of the Remote Facility Site will remove 5 acres from recreational hunting opportunities. Hunting opportunity associated with a two person duck blind just north of the proposed Remote Facility Site may be displaced by the presence of the facility.

Impact R1
Construction of the facilities at the Well Pad Site could decrease the quality of the recreation experience in the surrounding area.

Mitigation Measure R1a
The project applicant has entered into an agreement with the Wild Goose Club to prepare a landscape plan to eliminate potentially intrusive view. (No Applicant numbered measure, see Aesthetics mitigation measure AE 2)

Mitigation Measure R1b
Preclude construction during the fall and winter hunting seasons. (Applicant's L-4)

Mitigation Measure R1c
Avoid outdoor operational and maintenance activities during the hunting season when possible. (Applicant's L-5)

Implementation of these measures would reduce this recreation impact to a less than significant level.

Impact R2
At the Remote Facility Site, development of the site equates to loss of approximately 4 duck blind seats.

Mitigation Measure R2
Project applicant will compensate property owners for any loss of revenue resulting from the reduction in hunting lease acreage, or the cost of relocating the duck blind seats. (No Applicant numbered measure)

The proposed pipeline route will be within the county right-of-way on West Liberty Road and the bridge crossing Belding Lateral will be reconstructed, but property owner and emergency vehicle access along this road will be maintained at all times during construction. Minor delays of several minutes may be experienced while pipeline construction equipment moves aside to allow traffic to pass. Public access to the fishing access area on Gray Lodge property adjacent to the 833 Canal at the end of West Liberty Road will be closed during the week to 10 days required to reconstruct the bridge. Mitigation measures proposed in the Transportation Management Plan will reduce this impact to an insignificant level.

Impact R3
Temporary restriction of public access to the fishing area on Gray Lodge property.

Mitigation Measure R3
According to Gray Lodge staff, use of the fishing access area at the end of West Liberty Road is concentrated on weekends in the spring and fall. To minimize the impacts to the fishermen who may wish to use the area, the closure of West Liberty Road for bridge work will occur mid-week during the summer when fishing use is lowest. However, should this work not be completed during the week, fishing use of the access area would be precluded for one weekend. To minimize the impacts of this short-term closure, notices of the pending road closure will be posted in advance along the road, at the Gray Lodge Headquarters, and published in the Gridley Herald newspaper, at least two weeks prior to the closure. (No Applicant numbered measure)

With implementation of these measures, the Gray Lodge concurs that recreational use of this site will not be significantly impacted.

XVI. MANDATORY FINDINGS OF SIGNIFICANCE.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	☐	■	☐	☐

During the Initial Study it was determined that, without mitigation, the project has the potential to cause biological degradation, habitat reduction, and threats to special status species. The California Public Utilities Commission staff participated in and directed an independent review of the Applicant's biological evaluation. Determination of significant biological impacts and the progressive development of mitigation measures was conducted in close consultation with and under the guidance of appropriate resource agencies, including the Army Corps of Engineers, the Environmental Protection Agency, the US Fish and Wildlife Service, and the California Department of Fish and Game. Incorporation of the mitigation and monitoring measures as part of the project reduces the potential biological impacts to a level of insignificance. See Section VII, Biological Resources. No important examples of California prehistory were identified in the project area, as the result of a cultural resources assessment consisting of a record search and intensive field surveys . In addition, the nature of the deposits in the project area suggest a low sensitivity for significant paleontological resources. Contingency measures are in place should any evidence of paleontological or cultural resources are found during excavation.

b) Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals?	☐	☐	■	☐
c) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	☐	☐	■	☐

Contacts with the planning departments of Butte, Colusa , and Sutter Counties did not identify any past, current, pending, or probable future projects that would result in cumulative impacts when taken together with the Wild Goose Gas Storage Project and its possible future expansion. See "Possible Future Plans" in the Negative Declaration and the response to comment 2U.

d) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	■	☐

Environmental Factors Potentially Affected

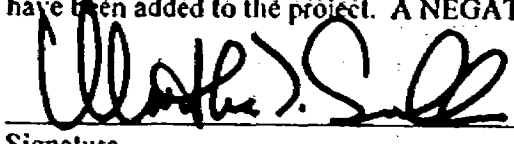
The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

- ■ Land Use and Planning
- □ Population and Housing
- ■ Geological Problems
- ■ Water
- ■ Air Quality
- ■ Transportation/Circulation
- ■ Biological Resources
- □ Energy and Mineral Resources
- ■ Hazards
- ■ Noise
- ■ Mandatory Findings of Significance
- ■ Public Services
- ■ Utilities and Service Systems
- ■ Aesthetics
- ■ Cultural Resources
- ■ Recreation

Determination

On the basis of this initial evaluation:

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



Signature
Douglas M. Long, Manager
Decision-Making Support Branch
Energy Division
California Public Utilities Commission

June 23, 1997
Date

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2. Ernie Ralston, Essex Environmental
3. Essex Environmental staff and subconsultants
4. Ginger Fodge, US Army Corps of Engineers
5. Jason Davis, endangered species biologist, US Fish and Wildlife Service
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ATTACHMENT A

Wild Goose Gas Storage Project
Draft Negative Declaration/Initial Study Comment Log

Commenter	Correspondence Number	Number of Comments
INDIVIDUALS, ORGANIZATIONS, & BUSINESSES		
Pacific Gas & Electric Company	1	1
Mid-Valley Building and Construction Trades Council, the Plumbers and Pipefitters Union, Local 228, and the Plumbers and Steamfitters Union, Local 342	2	46
The Roseville Land Development Association	3	20
STATE AGENCIES		
Department of Conservation Division of Oil, Gas, and Geothermal Resources	4	2
LOCAL AGENCIES		
Butte County Air Quality Management District	5	2
PROJECT APPLICANT		
Wild Goose Gas Storage, Inc.	6	7

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Edward V. Kurz
Attorney at Law

BY FAX (415) 703-2200
AND HAND DELIVERY

April 29, 1997

Bruce Kaneshiro, Project Manager
Energy Division
California Public Utilities Commission
505 Van Ness Avenue, Fourth Floor
San Francisco, CA 94102

Re: Comments on Negative Declaration and Initial Study in A.96-08-058, Application of Wild Goose Storage Inc. for CPCN to construct a gas storage project in Butte County

Dear Mr. Kaneshiro:

In response to the "Notice of Publication of a Negative Declaration," dated March 28, 1997, Pacific Gas and Electric Company (PG&E) provides the following, limited comments to correct what PG&E believes to be a factual error in the Initial Study.

A

On page 59 of the Initial Study, the following language appears:

> The project itself will have a beneficial impact on peak and base period demands for natural gas. By storing gas during surplus periods and releasing it during shortages, the project will make the existing systems more efficient.

Although this statement may be true as a general proposition, it is incorrect in the specific case of the local transmission system serving the Wild Goose project.

In Phase One of Wild Goose's CPCN proceeding,[1] Wild Goose argued that its "counter-cyclical" use of PG&E's Sacramento Valley Local Transmission System

[1] At a November 6, 1996, prehearing conference in this proceeding, the assigned administrative law judge bifurcated the proceeding into phases. (PHC Tr. 2:28 to 3:8.) Phase One concerned certain non-environmental issues, including cost responsibility for future transmission system upgrades necessary to accommodate operation of the proposed Wild Goose facility. Hearings in Phase One took place on February 10 and 11; the case was submitted for decision on March 19, 1997. Transcript and exhibit citations herein refer to the evidence introduced during the February hearings

A The Initial Study has been revised to reflect this comment. See revised Section XII(a).

(SVLTS) to transport gas to its facility would benefit the SVLTS, just as the Initial Study generally suggests. As PG&E explained, however, Wild Goose will in fact be using the SVLTS for its gas injection operations during the summer – at the same time PG&E's noncore customers (principally agricultural concerns) will be placing heavy demands on the SVLTS. (Tr. 79:4-11.) Moreover, Wild Goose's summer injection volumes will be ten times greater than the load of the largest end-use customer presently served from the SVLTS, using up to 83 percent of the current, maximum capacity of Line 167 (Tr. 121:18-24; Exhibit 16, p. 1) to which the Wild Goose facility will directly interconnect. PG&E will also incur additional operational and administrative costs in displacing Line 400 gas with gas from Wild Goose during periods of winter peak demand. (Ex. 11, p. 3-6, Ans. 13.) Therefore, PG&E does not believe that the Wild Goose project will make its existing local transmission system more efficient.

As stated above, PG&E makes the foregoing comments solely to correct what it perceives is a factual error in the Initial Study, and trusts that this error will not prejudice PG&E's position in Phase One concerning cost responsibility for future transmission system upgrades. PG&E does not believe that correction of this error should change the "Less Than Significant Impact" conclusion of Section XII (a) of the Initial Study, which appears on page 59 of that document.

If you have any questions, please do not hesitate to call or write.

Very truly yours,

EDWARD V. KURZ

EVK/sl

Correspondence No. 2

ADAMS & BROADWELL
A PROFESSIONAL CORPORATION
ATTORNEYS AT LAW
[illegible]

April 29, 1997

VIA MESSENGER

Bruce Kaneshiro
Project Manager
Energy Division
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102-3298

Re: Wild Goose Gas Storage (A.96-08-058)i Comments on Negative Declaration/Initial Study

Dear Mr. Kaneshiro:

The following comments on the Negative Declaration and Initial Study (collectively, Negative Declaration) prepared for the Wild Goose Gas Storage project ("Project") are submitted on behalf of the Mid-Valley Building and Construction Trades Council, the Plumbers and Pipefitters Union, Local 228, and the Plumbers and Steamfitters Union, Local 342 and the individual members of these organizations (collectively, "the Unions").

I. INTRODUCTION

After a thorough analysis of the relevant documents and advice from their experts,[1] the Unions have concluded that the Negative Declaration does not comply with the requirements of CEQA, and that an Environmental Impact Report ("EIR") must be

[1] The documents reviewed include the Proponent's Environmental Assessment and amendments thereto ("PEA"), the application and related materials submitted to the U.S. Army Corps of Engineers in connection with the § 404 wetlands permit process, the application for an Authority to Construct submitted to the Butte County Air Quality Management District, and the Butte County General Plan.

prepared. In sum, the Negative Declaration fails to properly define the project to include the whole of the action (commonly referred to as "piecemealing"), fails to provide adequate analysis or factual basis to support its conclusions that all impacts have been mitigated to insignificance, and improperly defers analysis and mitigation of several potentially significant impacts. These flaws make the Negative Declaration legally inadequate under CEQA, and incapable of supporting a finding of no significant impact.

This conclusion is also supported by the expert analysis of Thomas Reid and Dr. Karen Weissman of Thomas Reid Associates, a land use and environmental consulting firm. Mr. Reid and Dr. Weissman concluded that the Project, as currently defined by the Applicant, will have significant, unmitigated environmental impacts in the areas of air quality, biological resources, wetlands, noise, public health and safety, and energy use. When properly defined to include the "whole of the action," the Project will have additional significant, unmitigated impacts. Detailed comments are presented below and in the comments of Mr. Reid and Dr. Weissman, attached as Exhibit A to this letter. Their resumes are also attached.

We also intend to present these issues at the evidentiary hearing to be held on the Phase II (environmental) issues.[1]

II. AN EIR MUST BE PREPARED TO ANALYSE THE PROJECT'S SIGNIFICANT, UNMITIGATED IMPACTS

A. CEQA Requires an EIR Whenever There is a "Fair Argument" that the Project may have a Significant Environmental Effect.

A

The courts have long recognized that CEQA creates a "low threshold" for the preparation of an EIR. (*No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.3d 68, 84 (118 Cal.Rptr. 34); *Oro Fino Gold Mining v. Motherlode Alliance* (1990) 225 Cal.App.3d 872, 881 (274 Cal.Rptr. 720).) The test is whether "it can be fairly argued on the basis of substantial evidence that the project may have significant environmental impact." (*No Oil*, 13 Cal.3d 68, 75; *Stanislaus Audubon Society, Inc. v. County of Stanislaus* (1995) 33 Cal.App.4th 144, 152-153 (39 Cal.Rptr.2d

[1] Administrative Law Judge Garde stated at the Nov. 6, 1996 Prehearing Conference that a one-day hearing would be held if the Commission decided to prepare a Negative Declaration for the Project. If the Commission decides to prepare an EIR for the Project, no hearing would be necessary at this time.

A

CEQA Section 21080(c) and (d) requires that the lead agency makes it determination regarding the existence of substantial evidence of environmental effects based upon the whole record before the agency. Not all matters in the record can be considered substantial evidence; CEQA specifically excludes, for example "argument," "speculation," "unsubstantiated opinion or narrative," or "evidence which is clearly erroneous or inaccurate" CEQA, Section 21080(e). CEQA also specifically includes among what can be "substantial evidence" "facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts." Id.

For purposes of establishing the existence of "substantial evidence of significant effect on the environment," argument on the legal effect of facts included in a statement of "expert opinion" is not "substantial evidence", nor is opinion that relies on speculation or conjecture. Likewise, not all facts or opinions are of equal validity or significance. "[C]onflicting assertions do not ipso facto rise to

Correspondence No. 2 (continued)

54)]; *Quail Botanical Gardens Foundation, Inc. v. City of Encinitas* (1994) 29 Cal.App.4th 1597, 1602 [35 Cal.Rptr.2d 470].)

CEQA defines substantial evidence for purposes of the fair argument standard to include "facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts." (§ 21080(e).) This evidence need only be reasonable and credible; any doubts regarding the evidence must be resolved in favor of a finding of significance. (*Stanislaus Audubon*, 35 Cal.App.4th at pp. 151-152.) Furthermore, the fact that the record may contain contrary evidence that the project would not result in significant effects does not change the lead agency's obligation to prepare an EIR:

> If there was substantial evidence that the proposed project might have a significant environmental impact, evidence to the contrary is not sufficient to support a decision to dispense with preparation of an EIR and adopt a negative declaration, because it could be 'fairly argued' that the project might have a significant environmental impact." (*Friends of "B" Street v. City of Hayward* (1980) 106 Cal.App.3d 988, 1002 [165 Cal.Rptr. 514]; *Oro Fino*, 225 Cal.App.3d at pp. 881-882.)

A

As mentioned above, a mitigated negative declaration is permitted only where revisions to the project prior to release of the proposed negative declaration for public review would avoid or mitigate the effects to a point where clearly no significant effects would occur. (§ 21157.5(a)(2); 14 C.C.R. § 15070(b)(1).) Like any other negative declaration, a mitigated negative declaration may be used only where "[t]here is no substantial evidence before the agency that the project as revised may have a significant effect on the environment." (14 C.C.R. § 15070(b)(2).) If there is <u>any</u> substantial evidence that the project as proposed or revised may have a significant effect, an EIR must be prepared. (§ 21080(c)(2), (d).)

As noted above, CEQA specifically states that "expert opinion supported by facts" constitutes substantial evidence. (§ 21080(e).) The attached opinions of Mr. Reid and Dr. Weissman thus constitute substantial evidence according to the statutory definition. According to the court decisions in *Stanislaus Audubon*, and *Friends of "B" Street*, the existence of contrary opinion cannot support a decision to rely on a Negative Declaration. In addition, the CEQA Guidelines clearly state: "If there is a disagreement between experts over the significance of an effect on the environment, the lead agency <u>shall</u> treat the effect as significant and <u>shall</u> prepare an EIR." (CEQA Guidelines § 15064(h)(2) (emphasis added).) Because there is

A (Continued)

substantial 'fair argument' evidence." *Citizen Action To Save All Students v. Thornley* (1st Dist. 1990), 222 Cal App.3d 748, 755-56. Accordingly, the CEQA Guidelines in the subsection relied upon in part by the commenter, in fact suggest determinative weight be given to the existence of a conflict between expert opinions <u>only</u> in "marginal cases," i.e., where, unlike here, it is not clear whether there is substantial evidence that a project may have a significant effect on the environment. Guidelines, Section 15064(h).

In this matter, the CPUC has concluded that, based on the whole record before it, there is no substantial evidence before it that the project, as revised, may have a significant effect on the environment. Specific responses to the points raised in the opinions of commenter's experts are dealt with in succeeding sections of this response, and the responses indicate that there are not "marginal cases" of a conflict between expert opinions.

A substantial evidence that the Project may have a significant impact, an EIR must be prepared.

B. The Project, as Currently Defined, has Significant, Unmitigated Impacts.

The Negative Declaration identifies 40 potentially significant impacts of the Project. (Neg.Dec., Table 2.) Of the 15 resource areas analyzed, 13 had at least one potentially significant impact. (Neg.Dec., p. 69.) The Negative Declaration concluded that all of these impacts would be mitigated to insignificance and, thus, no EIR was required. However, Mr. Reid and Dr. Weissman concluded that, even for the Project as currently defined in the Negative Declaration, these mitigation measures would not reduce all impacts to insignificance. Thus, the "fair argument" test for preparing an EIR has been met. A summary of these expert findings is provided below.

1. Air Quality

B According to the CEQA Guidelines,[1] the violation of any ambient air quality standard, or substantial contribution to an existing air quality violation, is a presumptively significant impact under CEQA. (CEQA Guidelines, Appendix G(x).)

The Negative Declaration acknowledges that the air basin is non-attainment for ozone and particulate matter (PM_{10}), and that the Project may exacerbate this problem. (Neg.Dec., p. 35.) However, the Negative Declaration relies almost entirely on the permitting process at the Butte County Air Quality Management District ("AQMD") to mitigate the Project's potentially significant air quality impacts: "The issuance of the Authority to Construct and Authority to Operate documents will be confirmation that the Project will not exceed any state or federal air quality standards." (Neg.Dec., p. 36.)

After reviewing the pertinent documents, Dr. Weissman and Mr. Reid concluded that the AQMD permit process will not mitigate the Project's air impacts to insignificance.

a. Failure to Identify All Emissions

C Dr. Weissman and Mr. Reid identified several emissions that were not included in the AQMD analysis, including "blowdown" emissions from pressure relief vents (Ex. A, pp. 4-5), and

[1] The CEQA Guidelines are found in Title 14 of the California Code of Regulations.

B See response to comment 2A1 below.

C See response to comment 2AA below.

emissions from equipment used to inject the cushion gas over a 6 to 12 month period. (Ex. A, pp. 5-6.) Either of these sources, by themselves, may cause the violation of an air quality standard, which is a significant impact under CEQA.

b. Failure to Assess Maximum Daily Emissions

D The documents also fail to provide a comprehensive analysis of maximum daily emissions. (Ex. A, p. 6.) Maximum daily emissions are an integral part of determining whether the Project's impacts are significant because ozone and PM_{10} (non-attainment pollutants) have 24-hour standards. Thus, the Negative Declaration does not properly substantiate its claim that there will be no unmitigated significant air quality impacts from the Project.

c. Failure to Identify Significance Standards

E In order to determine whether a Project's impacts are "significant," one must define the standard of significance. As Dr. Weissman and Mr. Reid explain, the larger AQMDs in the State have established CEQA thresholds of significance equivalent to the emissions level which trigger the use of Best Available Control Technology ("BACT") on emission sources. Thus, although the Butte County AQMD has not had the opportunity to establish significance standards for CEQA purposes, we can look to their BACT thresholds for guidance. (Ex. A, p. 7; see AQMD Rule 430.)

Using the AQMD's BACT thresholds as significance standards, Dr. Weissman and Mr. Reid concluded that the Project, as mitigated, would exceed the standards for both NOx and reactive organic compounds ("ROG"). (Ex. A, p. 7.) Both NOx and ROG are ozone precursors (Butte County AQMD Rule 430), a pollutant for which the air basin is already classified non-attainment. Thus, even with the Applicant's proposed mitigation, the Project will still have a significant air quality impact.

d. Noncompliance with BACT Requirements

F Dr. Weissman and Mr. Reid thoroughly analyzed the Applicant's documentation regarding what constitutes the appropriate BACT for the Project. The issue, in a nutshell, was whether selective catalytic reduction ("SCR") or dry low-NOx combustors should be deemed BACT. (Ex. A, pp. 7-8.)

Even though SCR is clearly the most effective technology for mitigating NOx emissions from gas-powered compressors, the Applicant rejects this option as infeasible. (Ex. A, pp. 7-8.) Dr. Weissman and Mr. Reid concluded that the Applicant's

D See response to comment 2AA below.

E See response to comment 2AE below.

F See response to comment 2 AF below.

F feasibility analysis was severely flawed and did not support the determination of infeasibility. (Ex. A, p. 8.) With regard to the use of electric-powered compressors, which have no NOx emissions at all, the Applicant summarily dismissed this alternative as too expensive without providing an appropriate analysis. (Ex. A, p. 8.)

When utilizing the BACT threshold as the standard of significance, the Project would cause a significant unmitigated impact under CEQA.

e. Failure to Discuss Project's Contribution to Violations of Air Quality Standards

G As previously discussed, a project has a presumptively significant impact under CEQA if it will "contribute substantially to an existing or projected air quality violation." (CEQA Guidelines, Appendix G(x).) In this case, there is an existing violation of air quality standards, as evidenced by the region's designation as non-attainment for ozone and PM_{10}. However, Dr. Weisenman and Mr. Reid were unable to find any analysis of this impact in the PEA, Negative Declaration, or air permit application documents. (Ex. A, pp. 10-11.) Thus, the Negative Declaration cannot support its conclusion that the Project will not have a significant impact in this area, especially in light of the Project's high emissions of ozone precursors. (Ex. A, p. 11.)

f. Failure to Offset Project Emissions

H Closely related to the failure to discuss the Project's contribution to non-attainment standards in the air basin is the Applicant's failure to "offset" Project emissions. According to the AQMD rules, any new source that emits a non-attainment pollutant or its precursors must "offset" these emissions with reductions from existing emission sources. (AQMD Rule 430.) For example, the new source can purchase emission reduction credits from other sources. (AQMD Rule 431.)

The analysis conducted by Dr. Weisenman and Mr. Reid demonstrates that the Project will trigger the AQMD's offset requirement for ozone. (Ex. A, pp. 8-9.) However, the Applicant does not intend to provide offsets. The failure to comply with this rule constitutes the failure to comply with an adopted environmental plan or goal under Appendix G of the CEQA Guidelines. (CEQA Guidelines, Appendix G(a).) Hence, it is a presumptively significant impact under CEQA.

Even if the AQMD waives the offset requirement for the

G See response to comment 2AI below.

H See response to comment 2AG below.

H

Project, the fact will remain that, under CEQA, the Project will exacerbate the basin's ozone pollution. Thus, the Commission should independently assess whether, under CEQA, the Applicant should be required to offset these impacts as a method of mitigating this impact to below the level of significance.

q. Inadequate Fuel Characterization

I

The first problem Dr. Weissman and Mr. Reid identified was the failure to accurately characterize the fuel to be used by Project equipment. (Ex. A, pp. 3-4.) In the permit application submitted to the AQMD, the Applicant maintains that this fuel will be "pipeline quality" and provides a fuel characterization for typical pipeline quality gas. However, the fuel actually used by the Project equipment will be a mixture of pipeline quality gas and "native" raw gas from the Wild Goose Gas Field that has never been refined to remove impurities such as sulfur and nitrogen. These impurities could increase the level of ozone-precursors from Project equipment and, perhaps, also from equipment used by the Applicant's customers. (Ex. A, p. 4.)

Without accurate fuel data, it is not possible to accurately identify the Project's emissions, nor to determine whether the proposed emissions control technology will mitigate Project impacts to insignificance. The EIR should contain a full characterization of the actual fuel to be used by the Project equipment.

I See response to comment 2Z below.

2. Endangered and Sensitive Species

J

The Negative Declaration identifies 17 sensitive species that the Project has the potential to impact. This includes 2 plant species, 2 species of reptiles, 6 bird species, and 7 bat species. One of the impacted reptiles -- the giant garter snake -- is a federally listed endangered species.

Based on their review of the biological information regarding the Project's impacts to sensitive species, Dr. Weissman and Mr. Reid concluded that the proposed mitigation measures would not reduce the Project's impacts to insignificance. (Ex. A, pp. 11-13.)

a. Inadequate Mitigation for Giant Garter Snake and Northwest Pond Turtle Impacts

In their comment letter, Dr. Weissman and Mr. Reid explain why the mitigation measures for impacts to the giant garter snake and northwest pond turtle do not provide adequate assurance that these species will not suffer harm. (Ex. A, pp. 12-13.) In sum,

J See response to comment 2AL below.

Dr. Weissman and Mr. Reid express substantial doubt about the Applicant's ability to: (1) prevent these species from entering construction areas where they could be harmed; (2) locate all of the secretive snakes and turtles and remove them from the construction zone; and (3) restore their habitat, which requires dense vegetative cover, within two weeks. (Ex. A, p. 13.)

As a federally listed endangered species, any activity that kills, harasses, or otherwise harms even a single giant garter snake is a violation of federal law. (42 U.S.C. § 1532(19) (definition of "take").) Based on the conclusions of Dr. Weissman and Mr. Reid, there is a strong possibility that a "take" under the Endangered Species Act will occur.

b. Speculative Mitigation for Bat Species

K Dr. Weissman's and Mr. Reid's primary criticism of the proposed mitigation for bat species is that it provides no guidance for avoiding impacts to bats. (Ex. A, p. 13.) It simply requires the Applicant to consult with the U.S. Fish & Wildlife Service if bats are found. This proposal does not assure that impacts to these species can or will be mitigated. Hence, the Negative Declaration's conclusions that impacts to sensitive bat species will be mitigated to insignificance are without foundation. (Ex. A, p. 13.)

K See response to comment 2AL below.

c. No Assurance that Sensitive Plant Mitigation Will be Effective

L The mitigation measure for sensitive plants is to undertake a plant survey prior to construction and avoid disturbance of these areas. According to Dr. Weissman and Mr. Reid, this mitigation will not be feasible if the plants are in the construction zone. (Ex. A, p. 11.) Thus, there is considerable uncertainty regarding the effectiveness of this mitigation measure, and insufficient evidence to support the Negative Declaration's conclusion that these impacts will be mitigated to insignificance.

L See response to comment 2AK below.

3. Wetlands

M The Project will disrupt over 19 acres of wetlands. (Neg.Dec., p. 45.) However, the Applicant asserts that there will be 17.6 acres of "temporary disturbance," and only 1.56 acres of "permanent loss." (Ibid.)

According to Dr. Weissman and Mr. Reid, it is premature to conclude that the 17.6 acres will merely suffer temporary disturbance. (Ex. A, pp. 13-14.) This assessment cannot be made

M See response to comment 2AM below.

M until the disturbed acreage has regained its former wetland functions and values by, among other things, becoming revegetated. (*Ibid.*) In Dr. Weissman's and Mr. Reid's opinion, there is no assurance that this restoration will be successful and, hence, no assurance that these impacts will be mitigated to insignificance. (*Ibid.*)

N 4. Noise

Several aspects of the Project will generate noise. The Project's most significant noise impacts will come from intermittent activities such as pressure relief valve and pipeline "blowdowns." These are sudden events that will produce exceedingly high noise in an otherwise quiet area. (Ex. A, pp. 14-15.)

The PEA and Negative Declaration downplay the Project's noise impacts by claiming these noise sources will be adequately muffled and that no nearby sensitive receptors would be affected. Dr. Weissman and Mr. Reid disagree with both of these assertions. (Ex. A, pp. 14-15.)

Dr. Weissman and Mr. Reid point out that the PEA uses an incorrect method of measuring noise from these types of sources. Instead of focusing on the single-event noise, as would be appropriate for these sources, the PEA discusses the <u>average</u> daily noise level after mitigation. (Ex. A, pp. 14-15.) Even if this was simply a clerical error in the PEA, Dr. Weissman and Mr. Reid have serious doubts about the Applicant's ability to reduce the noise from these events from 120 to 75 decibels ("dB"). (Ex. A, p. 15.)

O Dr. Weissman and Mr. Reid also contacted biologists at the Grey Lodge Waterfowl Management Area. (Ex. A, p. 15.) They expressed concern that loud noises from the Project could frighten waterfowl using the refuge, causing them to relocate to nearby areas where they would be exposed to hunters. (Ex. A, p. 15.)

P The Butte County General Plan identifies the Grey Lodge Waterfowl Management Area as a "quiet area," i.e., a noise-sensitive area. (Butte County General Plan (1996), Noise Element, Fig. NO-1 and p. NO-10.) "These sensitive receptors need adequate quiet to conduct their activities." (Id. at p. NO-10.) Subjecting the refuge to loud noises would thus create a "(c)onflict with adopted environmental plans and goals of the community where it is located[,]" a presumptively significant impact under CEQA. (CEQA Guidelines, Appendix G(a)).

N See response to comment 2AN below.

O See response to comment 2AO below.

P See response to comment 2AO below.

Q

5. Public Health & Safety

A natural gas facility presents an obvious fire risk. Yet, instead of providing a true risk assessment, the Applicant asks us to rely on its desire to protect its workers, the public, and its financial investment for assurance that these impacts will be adequately mitigated. (PEA, p. 12-5.) But even with the best of intentions, accidents happen.

In Dr. Weissman and Mr. Reid's opinion, a risk analysis of the maximum worst case event should have been conducted. (Ex. A, pp. 16-17.) Until this occurs, there cannot be an accurate assessment of this potentially significant impact. (Ex. A, p. 17.)

R

6. Energy Use

According to the CEQA Guidelines, a Project has a presumptively significant impact if it will "(e)ncourage activities which result in the use of large amounts of fuel, water, or energy . . . (or) (u)se fuel, water, or energy in a wasteful manner. . . ." (CEQA Guidelines, Appendix G(n), (o).)

The Negative Declaration concludes that the Project will not use non-renewable resources in a wasteful and inefficient manner. This conclusion is based on the Project's use of natural gas as a compressor fuel, and the claim that the compressor engines will use BACT to reduce fuel usage. (Neg.Dec., p. 51.) However, based on their calculations, Dr. Weissman and Mr. Reid concluded that the Project could indeed have a significant impact in this area. (Ex. A, pp. 17-18.) This potentially significant impact should be evaluated in an EIR.

S

7. Geology/Soils

The Negative Declaration states that there is no possible impact associated with land subsidence or expansive soils. (Neg.Dec., p. 30.) This is inconsistent with the PEA, in which the Applicant states that it will perform soil borings to determine requirements for mitigating risks from liquefaction, subsidence, and expansive soils in the area. (PEA, p. ES-7.)[4] It also is inconsistent with the Butte County General Plan.

---

[4] With respect to liquefaction associated with the placement of engineered fill at well pad sites, the Negative Declaration states that geotechnical testing will be conducted. (Neg.Dec., p. 29.)

Q The Initial Study has been revised to reflect this comment. See revised Section IX(a), Mitigation Measure IIA 1a.

R See response to comment 2AR below.

S The Butte County General Plan states that each site must be judged on site-specific conditions with respect to subsidence. The Wild Goose Gas Storage Project will inject cushion gas into the subsurface reservoir, and will not deplete gas levels below current conditions. Therefore, subsidence due to gas depletion will not result.

a. Potential Subsidence Impact

The General Plan identifies the Wild Goose Gas Field as a potential subsidence area. (General Plan, Fig. S-1.) The policy for dealing with this potential impact is to "[r]equire investigation of subsidence potential in review of proposed withdrawal. Present findings in environmental review. . . ." (*Id.*, Safety Implementation Policy 5.1, p. S-13.)

The failure to comply with this General Plan policy constitutes a conflict with an adopted environmental plan or goal, a presumptively significant impact under CEQA. (CEQA Guidelines, Appendix G(a).)

T

b. Possible Impacts from Expansive Soils

The Project site is also in an area identified in the General Plan as having a "high" potential for expansive soils. (General Plan, Fig. S-3.) Expansive soils shrink and swell with changes in moisture content and can cause extensive damage to structures. (*Id.*, p. S-7). The implementation measure for projects in expansive soils areas is to "require mitigation measures for large developments and major facilities when there is a potential for significant damage." (*Id.*, Safety Implementation Measure 6.1, p. S-14.)

The failure to assess this potentially significant impact for this major facility and evaluate the need for mitigation conflicts with the General Plan and, thus, is a presumptively significant impact under CEQA. (CEQA Guidelines, Appendix G(a).)

III. THE EIR MUST ANALYSE THE WHOLE PROJECT'S IMPACTS

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A. The Project Definition and Impact Assessment has Been Improperly Limited to the Initial Phase of Development.

Any analysis of the environmental impacts of a project, whether in an initial study or an EIR, depends on an accurate and complete description of the project. (*County of Inyo v. City of Los Angeles* (1977) 71 Cal.App. 3d 185, 193 [139 Cal.Rptr. 396] ("An accurate, stable and finite project description is the *sine qua non* of an informative and legally sufficient EIR."); *City of Santee v. County of San Diego* (1989) 214 Cal.App.3d 1438 [263 Cal.Rptr. 340]; *Rural Land Owners Association v. Lodi City Council* (1983) 143 Cal.App.3d 1013, 1024-1025 [192 Cal.Rptr. 325]; *Santiago County Water District v. County of Orange* (1981) 118 Cal.App.3d 818, 829-830 [173 Cal.Rptr. 602].) If the description of the project is inaccurate or incomplete, the initial study or

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The facilities will be designed, as required by local ordinances and the Uniform Building Code to prevent such impacts. The construction design and placement of soil for these pads must be certified by State Certified Professional Engineer. This engineering design is a requirement of the local building department, otherwise a building permit can not be obtained.

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The Negative Declaration has been revised to reflect this comment. See the new title, "Possible Future Plans," on page 19. The applicant for this project has openly stated the possibility, dependent on future energy needs and other economic considerations, that the proposed project considered in this Mitigated Negative Declaration could be the first phase in a multi-phase expansion of the use of the storage facility to its full capacity. The applicant has located its on-site and off-site facilities so as to accommodate such an expansion, should it occur. However, the project in this application consists of a stand-alone, economically feasible operation for the storage and provision of natural gas to users, i.e., the continued operation of this project is not dependent on any further expansion of the gas storage operations. In addition, future expansion or modification of the site would require a new CEQA review process to the extent that a discretionary permit froma public agency is required.

EIR cannot be legally adequate. (CEQA Guidelines § 15063(d)(1); *Christward Ministry v. Superior Court* (1986) 184 Cal.App.3d 180, 197 [228 Cal.Rptr. 868]; *County of Inyo*, 71 Cal.App.3d at p. 193.)

A crucial component of an accurate project description is that it include the entire project. CEQA broadly defines the "project" which must be evaluated as "the whole of an action, which has a potential for resulting in a physical change in the environment, directly or ultimately . . . ." (*Citizens Ass'n For Sensible Development v. County of Inyo* (1985) 172 Cal.App.3d 151, 165 [217 Cal.Rptr. 893]; CEQA Guidelines § 15378(a).)

Early in development of CEQA law, the California Supreme Court established that it is "the mandate of CEQA that environmental considerations do not become submerged by chopping a large project into many little ones--each with a minimal potential impact on the environment--which cumulatively may have disastrous consequences." (*Bozung v. Local Agency Formation Comm'n of Ventura County* (1975) 13 Cal.3d 263, 283-284 [529 P.2d 1017, 118 Cal.Rptr. 249, 263]; accord, *City of Antioch v. City of Pittsburg* (1986) 187 Cal.App.3d 1333 [232 Cal.Rptr. 507]; *Rural Land Owners Ass'n v. Lodi City Council* (1983) 143 Cal.App.3d 1013 [192 Cal.Rptr. 325].)

"A public agency is not permitted to subdivide a single project into smaller individual sub-projects in order to avoid the responsibility of considering the environmental impact of the project as a whole." (*Orinda Ass'n v. Board of Supervisors* (1986) 182 Cal.App.3d 1145, 1171 [227 Cal.Rptr. 688]; Accord, *San Joaquin Raptor v. County of Stanislaus* (1994) 27 Cal.App.4th 713, 729-734 [32 Cal.Rptr.2d 704].) It is "[o]nly through an accurate view of the project may affected outsiders and public decision-makers balance the proposal's benefits against its environmental cost...." (*County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185, 192 [139 Cal.Rptr. 396]; *Santiago County Water District v. County of Orange* 118 Cal.App.3d 818, 830 [173 Cal.Rptr. 602].)

The danger of piecemeal review of a large project is that there may never be a comprehensive consideration of the entire project's impacts. (*City of Santee v. County of San Diego* (1989) 214 Cal.App.3d 1438, 1452 [263 Cal.Rptr. 340, 348]; *Citizens Ass'n*, 172 Cal.App.3d at p. 166 [217 Cal.Rptr. at p. 902].) This is what will occur if the Commission fails to consider the environmental impacts associated with use of the entire Wild Goose gas field for storage activities.

Even when a project applicant seeks separate permits for

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(Continued)

CEQA does not require the agency to engage in speculation about possible future actions, but only to assure to the extent practical and reasonable that the record presents a full picture of the potential effects of the project. The record on this matter as a whole clearly reflects appropriate consideration of the possibility of future expansion. The Mitigated Negative Declaration explicitly discusses the applicant's expansion intentions. It also identifies and generally discusses the areas where such expansion would potentially affect the scope of the present project, specifically the Well Pad Site, the Remote Facility Site, air impacts and the size and a possible PG&E interconnection pipeline. Any future expansion, however "reasonably foreseeable", is not a "reasonably foreseeable consequence" of the initial project, which is an economically viable, stand-alone project. Future expansion, while possible, is dependent on unknown economic factors, and far from the certainty suggested by the commenter. If it is assumed in this evaluation that future expansion would take place, assessment now of its scope and its method of implementation -- in particular the size and location of its pipeline -- would involve considerable speculation and provide nothing of value to the evaluation of potential effects by the current project on the environment.

The CEQA Guidelines explicitly state that such consideration of potential cumulative effects should be "guided by the standards of practicality and reasonableness." Guidelines, Section 15130(b). It is not reasonable to expect detailed and useful information about the potential environmental effects of a future facility whose scope is uncertain and which will be subject to environmental review in its own right. See *TRIP v. City Council of San Jose* (6th Dist. 1988), 200 Cal.App.3d 671, 681, cited with approval in *Sacramento Old City Association v. City Council of Sacramento* (3d Dist.1991), 229 Cal.App.3d 1011.

different stages of a project, CEQA does not permit piecemeal review. "The term 'project' does not mean each separate governmental approval." (CEQA Guidelines § 15378(c).) "The term 'project' refers to the underlying activity and not the governmental approval process." (*Orinda Ass'n*, 182 Cal.App.3d at pp. 1171-1172, quoting *Natural Resources Defense Council v. Arcata National Corp.* (1976) 59 Cal.App.3d 959, 969 [131 Cal.Rptr. 172] (emphasis by court).) Thus, the Commission must assess the environmental impacts of the entire Project now, even if it intends to conduct additional environmental review of the expansion in the future. Without an evaluation of all components of the Project, neither the public nor the Commission will know its true impacts.

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In *Laurel Heights Improvement Ass'n of San Francisco v. Regents of the Univ. of California* (1989) 47 Cal.3d 376, 413 [253 Cal.Rptr. 426], the California Supreme Court held that an EIR must analyze the environmental effects of a future expansion where:

(1) it is a reasonably foreseeable consequence of the initial project; and
(2) the future expansion or action will be significant in that it will likely change the scope or nature of the initial project or its environmental effects.

In this case, there can be no doubt that future expansion of storage operations into the entire gas field is reasonably foreseeable, and that this expansion will change the scope of the Project and its environmental effects.

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B. Expanded Operations are "Reasonably Foreseeable" and Must Be Analyzed in the EIR.

It is evident that future expansion into the entire gas field is reasonably foreseeable. The Applicant has acquired the underground storage rights for the entire gas field. (Neg.Dec., p. 7.) The Applicant has also acquired rights to additional acreage surrounding both the Well Pad and Remote Facility Sites so these facilities can be expanded to support operation of the entire field. (PEA, pp. 2-11, 2-18, 10-2; Neg.Dec., pp. 7, 8.) The Applicant refers to construction of facilities at these sites as "initial site development" in the PEA. (PEA, pp. 2-11, 2-18, 10-2.)

The Project is repeatedly referred to as the "current" phase of what will ultimately be a much larger project. (Neg.Dec., p. 7.) This "initial development phase" is only intended to meet "current storage needs." (PEA, p. 2-11, Neg.Dec., p. 7; see also

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The California Supreme Court recognized in *Laurel Heights Improvement Ass'n v. Regents of the University of California*, 47 Cal. 3d 376 that there can be a tension under CEQA between requiring public consideration of environmental effects at the earliest reasonable date to avoid whatever, and requiring environmental review at a stage where it is meaningless and results in wasteful expenditure of resources.

The Court in *Laurel Heights* held that consideration of potential effects from a future expansion requires that

a. it is a reasonably foreseeable consequence of the initial project; and
b. the future expansion or action will be significant in that it will likely change the scope or nature of the initial project or its environmental effects.

The Court further observed that criteria would be fact specific, and that it was not dictating the degree of assessment of the effects of any future action, which would be dependent on what was reasonable under the particular circumstances.

Applying these criteria in that case, the Court held that the applicant in *Laurel Heights* had improperly limited the scope of its review to the potential effects of the initial project, where the expansion of that project was acknowledged, fully planned and, indeed, imminent. In other circumstances, courts have upheld agency findings against assertions of "piecemealing" where the certainty of future action and even of future effects exceeded that present here. E.g., *Sacramento Old City Association v. City Council of Sacramento* (3d Dist.1991), 229 Cal.App.3d 1011 (EIR upheld despite absence of discussion of cumulative impacts where project would admittedly have substantial impacts and where appropriate mitigation of those impacts, beyond the listing of seven possible activities, was left to the future. Assessment of cumulative impacts of the mitigation measures would be speculative); *No Oil, Inc. v. City of Los Angeles* (2d Dist. 1983), 196 Cal.App.3d 223 (detail on potential pipeline routes and specific impacts for each route too speculative and absence did not render document insufficient).

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PEA, p. 2-6 ("For the storage demand identified in the near term . . . .")) Neg.Dec., p. 6.) "As market conditions warrant, expansion of the project may be implemented in multiple additional phases." (PEA, p. 2-37.) Clearly, this Application is merely the first step in a multi-phase project, and expansion of operations to the field's full capacity is reasonably foreseeable.

These facts are analogous to those in *Whitman v. Board of Supervisors* (1979) 88 Cal.App.3d 397, 414-415 [151 Cal.Rptr. 866]. *Whitman* involved the issuance of a permit for an exploratory oil and gas well. The EIR stated that, if the well was successful, products would be transported from the site by pipeline. The court found the EIR deficient for failing to analyze the pipeline:

> The record before us reflects that the construction of a pipeline was, from the beginning, within the contemplation of [the Applicant] should its well prove productive. Although admittedly contingent on the happening of certain occurrences, the pipeline was, nevertheless, part of [the Applicant's] overall plan for the project and could have been discussed in the EIR in at least general terms. Even if the well and pipeline were viewed as parts of a "phased project," Guidelines section 15069 [now section 15165] called for the preparation of a single EIR covering the "ultimate project." (*Ibid.*)

To explain its failure to analyze and mitigate the full Project impacts, the Negative Declaration relies on the Applicant's assertion that it "has no reasonably foreseeable plans to expand the project." (Neg.Dec., p. 19.) This reliance is inappropriate in light of the above representations. Moreover, the Negative Declaration apparently defines "reasonably foreseeable" as any activity beyond the year 2000. (Neg.Dec., p. 19 ("The proposed project scope is based on the reasonably foreseeable projected gas storage needs up to the year 2000.").) This definition is unduly restrictive, particularly when one considers that the project will not be on-line until 1998. It also is inconsistent with the facts.

The EIR need not predict the precise environmental effects of the expansion. The fact that precision is not possible does not justify an agency's failure to analyze the impacts of an anticipated expansion. (*Laurel Heights*, 47 Cal.3d at p. 398-399.) Instead, it "must use its best efforts to find out and disclose all that it reasonably can." (*Id.* at p. 399.) The Applicant has already had a biological survey report prepared for

V See response to comment 2U.

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the full project. (PEA, p. 5-20, n. 1.)

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C. The Project has Numerous Other Significant Impacts When Properly Defined to Include the Whole Project.

The PEA tacitly acknowledges that full operation of the gas field will create additional environmental impacts:

> In order to fully utilize the storage capacity of the field, additional wells may be drilled at the Well Pad Site and the project would need to either connect to PG&E's backbone gas transmission pipelines (Lines 400 and 401) west of Interstate 5 near Delevan in Colusa county, or establish a second connection to PG&E's gas transmission system elsewhere in the general area. Additional compressors and piping at the Remote Facility Site would also be required to handle any significant increase in capacity. (pp. 2-37 to 38.)

See also p. 5-20, n. 1 (full operation will require a 24-mile pipeline); p. 10-2 (expansion of well pad facilities from 1.5 to 8.5 acres, with up to 30 wells).

When properly defined to include full operation of the gas field, Dr. Weissman and Mr. Reid identified numerous other potentially significant impacts of the Project that were not analyzed or mitigated in the Negative Declaration (Ex. A, pp. 18-20.) These include the following:

- potential disturbance of an additional 291 acres of land, which could temporarily or permanently disturb wetlands and agricultural uses
- approximately twice the projected air emissions
- additional impacts to endangered and sensitive species and their habitat
- extra noise sources
- increased energy consumption
- greater transportation impacts (short- and long-term)
- possible aesthetic impacts

All of these impacts should be assessed in an EIR prepared for the Project.

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IV. MANY MITIGATION MEASURES ARE IMPROPERLY DEFERRED

To rely on a mitigated negative declaration for a project with significant impacts, the mitigation measures must "avoid the effects or mitigate the effects to a point where clearly no significant effect on the environment will occur." (S

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The project scope, as defined in the Mitigated Negative Declaration, is based on current market and economic conditions for gas storage needs up to the year 2000. Because the Wild Goose Project is the first independent gas storage provider in California, future demand projections for such service is speculative and uncertain. WGSI has indicated the project will be economically viable as currently configured, and has no reasonably foreseeable plans to expand the project. Therefore, the project as defined in the Negative Declaration does constitute the "whole project".

The current project is a scaled down version of a larger project by a different project sponsor (Muse, Stencil, Inc.) originally envisioned in 1993 and subsequently abandoned. WGSI has indicated the project will be economically viable as currently configured and has no foreseeable plans to go forth with a larger project such as the one described in the footnote on page 5-20 of the PEA.

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See response to comment 2AT below.

21157.5(a)(2).)

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It is not enough to assert that certain mitigation measures might be available and effective; the Negative Declaration must evaluate the feasibility of mitigation. (*Kings County Farm Bureau v. Hanford* (1990) 221 Cal.App.3d 692, 727-728 [270 Cal.Rptr. 650, 667].) An agency may not rely on mitigation measures of uncertain feasibility or effectiveness (*Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 727-728 [270 Cal.Rptr. 650]), or defer consideration of mitigation measures to later studies. (*Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 306-08 [248 Cal.Rptr. 352].)

In *Sundstrom*, the lead agency conditioned its approval of the project on the post-approval preparation of a hydrological study evaluating the project's potential impacts on downslope properties. This study would allow agency staff to develop specific mitigation measures. The court concluded that, because the success of the mitigation was uncertain, the lead agency could not have made a reasonable finding that all potential impacts had been mitigated below a level of significance. (202 Cal.App.3d at pp. 306-308.) The court also found this deferral to violate several of CEQA's fundamental policies:

> By deferring environmental assessment to a future date, the conditions run counter to that policy of CEQA which requires environmental review at the earliest feasible stage in the planning process. . . . A study conducted after approval of a project will inevitably have a diminished influence on decision making. Even if the study is subject to administrative approval, it is analogous to the sort of post hoc rationalization of agency actions that has been repeatedly condemned in decisions construing CEQA. (citations)
>
> It is also clear that the conditions improperly delegate the County's legal responsibility to assess environmental impact by directing the applicant himself to conduct the hydrological studies subject to the approval of the Planning Commission staff.
>
> * * *
>
> Finally, the use permit circumvents the provisions of CEQA governing the process of environmental review. . . . By merely requiring the administrative approval of the hydrological studies, the use permit provides no similar guarantee of an adequate inquiry into environmental effects. An EIR or negative declaration, moreover, are subject to

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review by the public and interested agencies. (citations) This requirement of 'public and agency review' has been called 'the strongest assurance of the adequacy of the EIR.' (*Ibid.*)

As Dr. Weissman and Mr. Reid explain in their comments, many of the mitigation measures in the Negative Declaration are not true mitigations. Rather, they defer impact studies and mitigation to a future time, outside the scope of the CEQA review process. (Ex. A, pp. 20-21.) Hence, the Negative Declaration does not demonstrate that all significant Project impacts have been mitigated "to a point where clearly no significant effect on the environment will occur." (§ 21157.5(a)(2).)

V. CONCLUSION

As the above discussion and the attached letter from Mr. Reid and Dr. Weissman demonstrate, the Project has several potentially significant, unmitigated impacts whether the project is defined as the current proposal, or the ultimate expansion to the entire gas field. Thus, the Negative Declaration cannot serve as a basis for approving the Project under CEQA. An EIR should be prepared to provide the Commission and the public with full information about these impacts, and to ensure that, where feasible, the impacts are mitigated to insignificance before a decision is made whether to approve the Project.

Thank you for the opportunity to submit comments on this Project.

Very truly yours,

Lizanne Reynolds

Thomas R. Adams
Marc D. Joseph
Lizanne Reynolds

LR:bh
Attachment

Correspondence No. 2 (continued)

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April 28, 1997

Ms. Lizanne Reynolds
Adams & Broadwell
651 Gateway Boulevard, Suite 900
South San Francisco, CA 94080

RE: **Review of proposed Negative Declaration and Proponent's Environmental Assessment for Wild Goose Gas Storage Project, Butte County, California.**

Dear Ms. Reynolds:

At your request, we have reviewed the proposed Negative Declaration and supporting documents for the Wild Goose Gas Storage Project. According to the Negative Declaration (p. 1) the project will occupy up to 12 distinct underground porous rock 'reservoirs' of a former underground natural gas field that are capable of holding 137 billion cubic feet of natural gas. The project will provide for 80 million standard cubic feet per day of firm injection service and will maintain a maximum design surface pressure of 2,000 psig. In sum, we find that:

(1) The project will have significant impacts on the environment that cannot be mitigated to below a threshold of significance through the implementation of all feasible mitigation measures. A full EIR should be prepared.

(2) The cumulative impacts of the total project are not addressed.

(3) Many of the mitigations in the Negative Declaration are not true mitigations but are deferrals to future studies.

(4) The scale of the project is partially responsible for its significant environmental effects. The purpose of CEQA is to assure that projects of this scale undergo appropriate public scrutiny so that all potentially significant effects have been identified.

Our detailed comments follow.

DETAILED COMMENTS

1. Significant Impacts: the project will have significant impacts on the environment that cannot be mitigated to below a threshold of significance through the implementation of identified mitigation measures.

Based on Appendix G of the CEQA Guidelines, the proposed project will or could:

- substantially affect a rare or endangered species of animal or plant or the habitat of the species;
- increase substantially the ambient noise levels for adjoining areas;
- create a potential public health hazard or involve the use, production, or disposal of materials which pose a hazard to people; or
- violate an ambient air quality standard or contribute substantially to an existing or projected air quality violation.

The mitigation measures in the Negative Declaration will not mitigate these impacts to insignificance. Therefore, the project does not meet the tests that allow it to be approved with only a Negative Declaration. A full EIR should be prepared.

a. Air Quality

The Initial Study supporting the proposed Negative Declaration incorrectly concludes that project air quality impacts have been mitigated to insignificance. The error stems from use of incomplete information and improper application of Butte County Air Quality Management district (BCAQMD) rules. The chief deficiencies are in the following areas:

- Incomplete characterization of the natural gas used as fuel or released during blowdown.
- Omission of sources contributing to the emissions inventory, particularly for the maximum day, hence under reporting project emissions for the CEQA analysis.
- Omission of any standards of significance set by either the lead agency, the BCAQMD, or any other applicable source.
- Failure to apply Best Available Control Technology (BACT) and dismissing BACT as infeasible based on incomplete and faulty reasoning.
- Failure to address offsets for project emissions as required by the BCAQMD
- Omission of any discussion of the contribution of the project to violations of the ambient air quality standards.
- Omission of the probable cumulative impact of expansion of the project to the geological capacity of the gas field and a likely doubling of emissions.

As a result of these deficiencies, there is no basis for the CPUC as lead agency to conclude that the project's air quality impacts have been mitigated to insignificance. To the contrary, the project emissions with all mitigation proposed

clearly surpass the BCAQMD thresholds for BACT and offsets which signals the lead agency that full investigation under CEQA is required.

The following comments draw on information provided in the Initial Study dated March 1997, the Proponent's Environmental Assessment (PEA) dated August 1996, and the Application for Authority to Construct (AAC) to BCAQMD dated December 1996. The documents use the terms VOC (volatile organic compounds), ROG (reactive organic gases, and ROC (reactive organic compounds) essentially interchangeably. We attempt to use all terms in the context in which they are cited. Please also note that citations of concentrations may refer to the proportion on a volume or a weight basis, indicated by a 'v' or a 'w' after the concentration. Thus 25 ppmv means 25 parts per million by volume and 3 %w means 3 percent by weight. Because of the different molecular weights of the gaseous constituents present, the volume and weight proportions usually differ.

We note that the Proponent's position is that the current project application falls under a CPUC decision that private market gas storage projects are not required to show need to obtain a Certificate of Public Necessity and Convenience. While the CPUC's 'let the market decide' reasoning under Decision 93-02-013 is valid, the failure of the Proponent to include the facts necessary for a need showing in the current application has denied the CPUC staff access to much information regarding the scope and operations proposed. All of the conclusions in the PEA on economic infeasibility of alternatives (e.g. SCR, NOx reduction, and electric powered compressors) are unsubstantiated. The scope of the project is masked by incomplete and contradictory assumptions that would normally have been made clear in a need showing. What is the amount of Gas to be tied up in the base or 'cushion'? What is the annual cycle of gas injection and withdrawal in a typical year and in a maximum year? Without that information, the project's environmental analysis is doomed to be inadequate.

Y

These comments focus largely on Reactive Organic Gases (ROG) and Nitrogen Oxides (NOx), both of which would be emitted in large quantities by the project and both of which are precursors to ground level ozone ('smog'). The Butte County area is in non-attainment for ozone and therefore the CPUC must critically examine the impacts of any project contribution because of the likely significant impact on air quality.

1) **Incomplete characterization of the natural gas used as fuel or released during blowdown.**

Z

The project entails receiving 'pipeline quality' natural gas from the PG&E transmissions system, compressing the gas for injection into a depleted natural gas field, and withdrawal under periods of high demand. The fuel for all processes is the same natural gas being handled by the facility. Because of the facility's high energy demand, particularly for injection activities, and the large direct releases during blowdown, accurate characterization of the natural gas is critical to calculation of air emissions.

The PEA and AAC use limited PG&E data on commercially supplied gas as a basis for the sulfur and volatile organic compound (VOC) content. No data is

Y See response to comment 3M.

Z The existing gas in the depleted reservoir will not be a significant contribution to the bulk composition of the natural gas passed through the reservoir during operation. As currently proposed, gas to power the compressor will come directly from the PG&E pipe during reservoir filling operations, and from the reservoir during withdrawal. The nature of the process is such that any existing gas currently in the reservoir will be highly diluted in the gas withdrawn, and the dilution will increase as the field is operated as any existing gas is depleted.

Z

provided for fuel-bound nitrogen. It is not clear that the PG&E analysis applies to the Canadian gas likely to be supplied to the Wild Goose gas storage project. The analysis should show a realistic range of values for sulfur and VOC for the actual fuel to be used.

The analysis should also reflect the effect of the native gas in the field. Although the gas field is commercially depleted, the field still contains raw natural gas. The process of injection and withdrawal will result in mixing of 'pipeline' and 'native' gas so that the fuel leaving storage will be different in constituent from the pipeline supply. The PEA and AAC discuss the native gas in vague and dismissive terms, stating only that the field is 'dry' and that additional odorant would be added to compensate for dilution.

The native gas will enter the fuel stream essentially untreated — only sand and water will be removed. The VOC content may be significantly higher than the 0.398 %w cited in the AAC for 'pipeline' gas. As discussed, below, the VOC emissions from blowdown are quite high. The emissions could be exacerbated by any additional hydrocarbons from 'native' gas.

AAC calculations for the regenerator flare draw on other sources for VOC and BTEX constituents. The list of uncontrolled (before the flare) emissions shows 56.214 lbs VOC which is 9.06 %w of the total hydrocarbon emissions. This implies that the contribution from 'undiluted local gas' mentioned on AAC p B-11 may significantly increase the ROG contribution from both natural gas relief and combustion.

The effect of native gas could alter emissions rates from project fuel use and could also affect other natural gas consumers receiving gas from Wild Goose. Use of natural gas as a fuel is intended to be a major means of reducing VOC emissions. If the produced gas has even marginally higher VOC content, this could significantly affect emissions in the air basin or elsewhere in California.

2) **Omission of sources contributing to the emissions inventory, particularly for the maximum day, hence under-reporting project emissions for the CEQA analysis.**

AA

The BCAQMD has permitting authority for stationary sources and requires emissions calculations for those sources. CEQA, however, requires that all sources be included in determining significance and impact.

The AAC addresses and the PEA reports only three sources: the compressor, the reboiler, and the back-up generator. The emissions are shown in PEA Tables 4-5 through 4-7 (p. 4-15). The analysis omits emissions from natural gas blowdowns for routine and emergency maintenance, emissions from employee, service, and maintenance vehicular travel, fugitive natural gas emissions from valves and flanges, and emissions from cushion gas injection.

a) **Natural gas blowdown**

AB

Major equipment maintenance cannot be done when filled with gas under pressure. The facility can depressurize the operating equipment by allowing a

Z (Continued)

Consultants for the Applicant state that when the gas field was operating in the past, the gas met PG&E's quality standards and was introduced directly into its system. Therefore, the existing gas will constitute a negligible contribution to the bulk composition, it is of sufficient quality to remove any concern regarding its use.

The Butte County Air Quality Management District (BCAQMD) is currently reviewing the application for Authority to Construct (AC) the project, and they have certified the application complete for their review. They did not express concern regarding the composition of the existing gas in the depleted reservoir.

AA

The comment utilizes the following items to calculate a maximum daily emission: 1) the three pieces of equipment included in the AC to BCAQMD; 2) two vents used for emergency or maintenance blowdown; and 3) emissions from indirect sources. Based on the significance criteria established by the BCAQMD, it is not appropriate to use this method. The methods used by the BCAQMD are described in the following paragraphs.

According to the BCAQMD 1996-1997 draft document (approved by BCAQMD on March 30, 1997) entitled *Indirect Source Review Guidelines*, direct and indirect sources are not to be combined in an emissions calculation to determine significance under CEQA. The *Guidelines* state that emissions from stationary sources (that is, the three pieces of equipment included in the AC) are accounted for in the permitting process, and that indirect sources are accounted for separately and compared to their own significance criteria.

AB release of natural gas to the atmosphere, called "blowdown". The relief vents for blowdown are included in the AAC because the blowdown is a normal part of operations and is listed under "process equipment" in AAC page 1-2.

The AAC omits the relief vent from Table 3-1 (p. 3-2), but attaches hand calculations on page B-14 that shows ROG to be 43.5 lb/event for a 250 Mcf release. Those calculations are based on a single laboratory sample that shows 0.398 %w of all gas as ROG. Native gas or other "undiluted local gas" sources could raise the ROG emissions by a factor of ten or more. This amount of ROG would significantly increase project impact on ozone.

b) Cushion Gas Injection

AC The most significant omission is any consideration of the start-up phase of operation. As explained in PEA Section 2.2 Field Operation (p. 2-2), the working capacity of the reservoir is the top one-third to two-thirds of the total capacity. To reach operating conditions, the base gas or "cushion" needs to be injected first. The project start-up phase is 6 to 12 months using a "temporary skid-mounted portable natural-gas fueled rental compressor" (PEA p. 2-5).

The PEA and AAC omit any analysis of the emissions from project start-up. Assuming that the working capacity of reservoir is 14 Bcf (PEA p. 2-2), the cushion must be between 7 Bcf (if the working capacity is 2/3 of total) or 28 Bcf (if working capacity is 1/3 of total). There is gas left in the field, but no information is provided on its volume, pressure or contribution to the cushion. Using the larger estimate, 28 Bcf, it would take 12 months, 24-hours per day to inject at a rate of 76.7 MMcf per day. This rate is almost as much as the 80 MMcf/dy of full project operation phase, so the compression equipment would need to be similar.

The PEA shows the NOx emissions from the permanent compressor to be an average of 6.99 lb/hr or 167.76 lb/dy with a maximum NOx exhaust concentration of 25 ppmv. The relatively low 25 ppmv for turbines without catalytic reduction is cited as new to the market place. According to the AAC, "Gas turbines with conventional combustors using diffusion flame combustion technology have NOx emissions typically between 100 and 200 ppmv" (AAC p 5-11). AAC Table 4-1 shows the current federal New Source Performance Standard to be 169 ppmv. Thus, the temporary compressors may have NOx emissions rates as much as 8 times higher than the permanent units.

No information is provided on the "temporary ... rental compressor" as to size or emissions. If it is capable of injecting close to 80 MMcf/dy and has conventional emissions rates, it would emit roughly 1,300 pounds of NOx per day and 237 tons over the 12 month cushion injection phase. This level of NOx would be a 3.4% increase in NOx emissions in Butte County and would be a major impact, even for a six to twelve month period. The emissions associated with cushion injection should

AB The emissions from the blowdown vents should not be added to emissions from the operating equipment, because they cannot emit at the same time. BCAQMD indicates that they will likely follow this approach in their review. In the event of a maintenance blowdown, consultants for the Applicant state that all gas-fired equipment is manually shut down and tagged out prior to the blowdown. In the event of an emergency vent, consultants for the Applicant state that block valves automatically shut off the fuel supply to the operating equipment and prevent emissions from both types of source. It is anticipated that no more than two emergency blowdown situations will occur each year at the remote facility.

AC Consultants for the Applicant state that an application for AC will be submitted to the BCAQMD for the operation of the temporary compressor. The compressor would be equipped with BACT, either by utilizing a low-NO_x burner, or a reciprocating engine equipped with BACT. In either case, BCAQMD would review the application in accordance with their regulations, guidelines, and their Air Quality Attainment Plan to ensure that the increased emissions will not adversely affect local air quality. Consultants for the Applicant also state that the Applicant may install the permanent compressor first, and utilize it for injection of cushion gas. In this case, BCAQMD already has certified the AC to be complete for purposes of their analysis.

AC

be addressed by the CEQA analysis.[1] The emissions are clearly significant and no mitigation is proposed.

AD

c) Daily maximum emissions

The PEA and the Initial Study look at annual emissions, but ignore daily emissions. For pollutants such as PM10 with 24-hour standards, maximum day emissions is most important and crucial to evaluating whether the projects impacts will be significant. For pollutants such as NOx and ROG which react to form ground level ozone, the maximum day emissions are the most important determinant of potential impact.

The BCAQMD regulations reflect this emphasis, expressing the BACT threshold in terms of daily emissions rates. The PEA even cites the BCAQMD regulations, at the foot of page 4-12, but inexplicably omits any discussion of operational daily emissions. While the applicant may attempt to permit each piece of equipment separately, the CEQA air quality analysis needs to show them operating together and at the maximum daily emissions rate.

The daily emissions for some sources are shown in the AAC as Table 3-1, but this is not included in the CEQA analysis. Even on AAC Table 3-1, major daily sources are omitted, and none are summed. Using what information is available, the following summarizes an appropriate approach to CEQA emissions for just NOx and ROG.

Emissions Summary Maximum Day (lbs/day) — assuming AAC accurate

Source	Nitrogen Oxides	Reactive organic Gases
Gas Turbine Compressor	167.8	32.4
Glycol Reboiler Burner	2.7	.3
Glycol Still Vent	3.4	.8
Back-up Generator	48	13
Relief Vent	0	43.5
Facility Travel	??	??
Fugitive Emissions	??	??
Total	221.90 +	90.60 +

If the start-up injection emissions and the higher ROG constituent of native gas is included, daily emissions would be much higher.

[1] Strictly speaking, this cushion injection phase should be addressed by the BCAQMD because it is part of project operation. The PEA lists it under Project Operation, and although the PEA presents construction emissions it omits any mention of the emissions associated with the compressor used to place the cushion gas in the field.

AD

Response 2AA above explains that direct emissions from emergency or maintenance blowdown should not be added to those from operating equipment in order to determine maximum daily emissions, since both cannot occur at the same time. Informal consultation with the BCAQMD confirms that this is the approach they utilize in their environmental review. The Initial Study determined that BACT would be required as mitigation for direct project air emissions. Direct emissions were evaluated in the determination that BACT is required.

Similarly, BCAQMD guidelines specify that indirect emissions should be considered separately from point source emissions, and compared to significance criteria in their document *Indirect Source Review Guidelines*. Based upon the Initial Study, mitigation measures controlling PM_{10} during construction (see AQ1) were incorporated in conformance with the Guidelines.

AE

3) Omission of any standards of significance set by either the lead agency, the BCAQMD, or any other applicable source.

All Air Quality Management Districts or Air Pollution Control Districts must assure that applicants have complied with CEQA before permits can be issued. Air districts also routinely comment on environmental documents published by lead agencies to examine compliance with district policies and goals. To assist local lead agencies, several districts have published guidelines for determining when a project may have a significant air quality effect. In the South Coast, Bay Area, and Sacramento Valley districts, the CEQA significance threshold for a project as a whole is set at the same level the district uses to trigger BACT on a permit unit.

The air districts have taken this approach because there is a natural relationship between the BACT threshold and the CEQA significance threshold: both need to be set to exclude obviously small projects, but both should address projects which could materially contribute to air quality violations in non-attainment areas and which if not adequately mitigated, would impair the district's effort to attain ambient air quality standards.

The Butte County AQMD BACT threshold is 50 pounds per day for NOx and 50 pounds per day for ROG. According to information in the AAC, the project, as mitigated, would exceed both thresholds.

Using the same logic as used for most of the state's population, the Wild Goose project clearly triggers CEQA significance for preparation of an Environmental Impact Report. With the mitigation as now offered, the project would be found by most lead agencies to have an unavoidable adverse impact on air quality.

AF

4) Failure to apply Best Available Control Technology (BACT) and dismissing BACT as infeasible based on incomplete and faulty reasoning.

All air districts are responsible for attaining air quality standards. One of the most important tools is the district's permit authority for stationary sources and its ability to impose emissions control technology on new sources. For new sources above a threshold emissions level, the district require Best Available Control Technology (BACT).

The AAC to the BCAQMD appraises three technologies for NOx reduction and dismisses all but 'dry low NOx'. Clearly the most effective NOx reduction is Selective Catalytic Reduction (SCR) and this method is widely used. SCR could cut project emissions by as much as 80%. Without SCR, project emissions are not mitigated to insignificance.

The Proponent rejects SCR on two grounds: unsuitability to a variable load and cost. Neither is supported by valid data.

The problem with load variation is in maintaining the temperature in the catalytic unit and in adjusting the proper ammonia flow rate. The difficulty with SCE's compressor is cited (AAC p. C-2). There is no quantitative data to show that the

AE

The significance criteria are as follows: 1) stationary sources: BCAQMD rules and regulations, including the permit (AC) review process in which the need for offsets or BACT is assessed; 2) indirect sources: BCAQMD document entitled *Indirect Source Review Guidelines* establishes emission inventory procedure and significance criteria. In light of BCAQMD's procedures, it is not relevant to apply significance criteria from other air districts (Los Angeles, San Francisco, and Sacramento). Consultation with BCAQMD confirms this determination.

AF

The BCAQMD will require BACT, but the type of control technology is not known at this time. The BCAQMD is currently reviewing the Applicant's AC, and is determining the appropriate BACT to apply. According to district regulations, they must require the most stringent demonstrated control as BACT, unless the measure is either infeasible, or will not effectively achieve reductions. Based upon the review conducted to complete the Initial Study, the dry, low-NOx technology was determined to meet the BACT criteria. The was required in the mitigation measures. According to consultation with the BCAQMD, they are considering, among other things, selective catalytic reduction, electrification, and dry, low-NO_x technology.

Correspondence No. 2 (continued)

AF same problem would apply to Wild Goose. SCE is a public utility and operates a storage facility close to its urban load center and serves "core" consumers. The inlet pressure and demand would be expected to fluctuate during the day. Wild Goose on the other hand is located on a main pipeline remote from immediate load fluctuation and serves a pre-determined group of non-core users. Without data to support its contention, the Proponent cannot demonstrate its claim that the same operating problems SCE encounters would apply.

Similarly, the cost data submitted to the BCAQMD are unsubstantiated and appear biased toward rejection. The cost data are scaled-up cost from a smaller unit and produce an over estimate. Fully half of the cost estimate is attributed to $350,000 per year for a three-shift operator, without assessing the staffing need or the 7-day single shift already proposed to operate the project.

The PEA addresses the use of electrically powered compression (PEA p. 16-12 ff), but similarly dismisses the option on the basis of cost without presenting a valid analysis. The use of electrical compressors would completely eliminate the project's major NOx emission source and would bring a substantial benefit to the air basin. The cost of operation is claimed to be much higher for electricity, but assuming commercially available rates for electrical and natural gas, our preliminary calculations suggest the opposite effect. While one would not expect a project proponent to ignore cost savings, the CPUC should be provided with a more sufficient base upon which to reject an all-electric compression option which would eliminates three-quarters of the project's maximum day NOx emissions.

AG 5) **Failure to address offsets for project emissions as required by the BCAQMD.**

Where emissions cannot be reduced by control technology below a 25 ton/year limit, the BCAQMD can require existing emissions sources to be abated to offset the new emissions from the new source. BCAQMD Rule 430 A.2 states that the 'rule shall provide for no net increase in emissions ... from new or modified stationary sources which emit, or have the potential to emit, 25 tons per year or more of any non-attainment pollutant or its precursors.' The Wild Goose project has the potential to emit 30.6 tons of NOx (PEA 4-9) which is a precursor to ozone and is therefore subject to this rule.

The project's potential to emit for NOx is greater than the 25 ton per year limit established by the Butte County AQMD. Although the applicant seeks a permit condition limiting annual emissions to the 25 ton limit, this may not be enforceable, does not technically meet the District's definition of potential to emit, and does not address the potential adverse consequences of the remaining 25 tons of NOx that the project may emit into a non-attainment air basin.

The AAC does not provide for cumulative NOx monitoring. On AAC page 4-1, the Proponent proposes a 'limitation based on fuel consumption'. This permit condition will not be sufficient because it does not directly monitor the pollutant of concern. It will allow actual NOx emissions to routinely rise above the 25 ppmv used to calculate emissions.

AG The comment quotes the PEA and states that the facility has the potential to emit 30.9 tons per year (and hence be considered a major source requiring offsets), but that it will be limited to be below 25 tons per year (and hence not be a major source) by permit and monitoring. Consultation with BCAQMD indicates that they accept and have applied the concept of limiting emissions by permit, and will likely monitor compliance through a combination of measuring fuel use and periodically performing source tests/stack measurement. This monitoring can provide a conservative measure, based on the assumptions converting fuel use to stack emissions. This issue will be resolved by the terms of the AC issued by BCAQMD.

AG

Even the AAC admits that exhaust NOx concentrations will exceed 25 ppmv during lower power operation (AAC 5-10). The AAC cites a vendor guarantee, but neglects the limitations on the guarantee. The vendor was requested by the Proponent to supply a guarantee over an operating range of 50% to 100% load (AAC p. B-5, line 2), but the vendor only guarantees over a 75% to 100% range. Given the variable load cited by the Proponent as a reason not to use SCR, the 25 ppmv guarantee may not apply to actual conditions. Note that the vendor guarantee is for 7.21 lbs/hr NOx maximum, which is greater than the 6.99 lbs/hr used in the PEA (Table 4-4).

In fact, no operating permits have been issued for a 'dry low NOx' unit that have 25 ppmv as a limit. The Mojave Pipeline project listed in AAC Table 5-2 has been canceled and the 25 ppmv limit was never proven to be operable or enforceable.

The CPUC should require the direct monitoring of actual stack NOx and flow to demonstrate that the annual limitation is achieved. Simply stating that 25 tons will not be exceeded is not sufficient without a showing of how the operational limitation relates to the likely project operation. In addition, the 25 ton limitation certainly should apply to the start-up phase and should be imposed on whatever rental compressors are to be used. This requirement is not currently in the CPUC Initial Study.

The SCAQMD defines the project's potential to emit on a daily basis and refers only to equipment or operations limitations on a daily basis. SCAQMD Rule 430 (New Source Review) Section D. Definitions explains that:

> "Potential to emit means the maximum daily capacity of an emission unit to emit a pollutant under its physical and operational design. Any physical or operational limitation on the daily capacity of the unit to emit a pollutant, including pollution control equipment and restrictions in hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as a part of the design only if the limitation or the effect it would have on daily emissions is incorporated into the applicable permit as an enforceable permit condition." (Emphasis added)

For this reason, the use of an annual permit cap is not in compliance with the District's own regulations and is not an adequate basis for avoiding the requirement for offsets. Pollution episodes for ozone occur on bad air quality days and the SCAQMD emphasis on daily emissions is appropriate. For the project to meet the 25 ton/year limitation in strict accordance with District rules, it would have to impose a limit on daily emissions.

AH

Finally, the CEQA analysis must look at the purpose of offsets and determine whether they are in fact necessary. Offsets are a way for the air district to provide for a low net increase in basin emissions from a major source. Even if limited to 25 tons per year, the CPUC still needs to examine the actual impact of the increase in ozone (see discussion below) and independently determine if it is appropriate to require air emissions offsets as feasible mitigation for a significant impact under CEQA.

AH See response to comment 2AG above.

AI

6) Omission of any discussion of the contribution of the project to violations of the ambient air quality standards.

PEA Section 4.2 in Air Quality is titled 'Potential Impacts of the Proposed Project'. This section presents short tables of emissions, but contains absolutely no analysis of impact on ambient air quality or the non-attainment of air quality standards in the air basin.

The AAC likewise has a section entitled Air Quality Impacts Modeling (AAC Section 6), but this section also provides absolutely no assessment of impact on pollutant non-attainment in Butte County or the North Sacramento Valley. The section presents a simple SCREEN analysis of NO2 concentrations from the compressor stack, relating to the NO2 ambient air quality standard. There is no modeling for ozone despite the introductory sentence which admits that 'Modeling is required for NOx since it is a precursor for ozone, which is classified as non-attainment in the project area' (AAC p. 6-1).

Granted, explicit modeling of precursor contribution to ozone is complex, but the analysis and all the discussions in the PEA and Initial Study completely ignore even the semi-quantitative relationship between substantial project NOx and ROG emissions and the ozone non-attainment problem in the basin. The discussion lacks even a comparison of project emissions as a percent of basin inventory (as done for construction). Lacking any analysis, the CPUC cannot consider the appraisal of the project's air quality impacts to be adequate.

Even the direct pollutant plume analysis done for NO2 impacts is scanty. The model develops a x/Q relationship for both compressor and reboiler which shows far less inherent pollutant dilution for the reboiler, but the AAC never presents the expected ground concentration for this source.

The discussion of construction emissions is similarly short of actual impact assessment despite the already high particulate emissions in the basin. There are very high projected PM10 emissions from the project; the region exceeds the state 24-hour PM10 standard 15% to 30% of the time.[1] Given this high background level, the half ton of PM10 per day (PEA Table 4-2) from construction must be viewed as likely to cause or contribute to a violation of the state ambient air quality standard.

Finally, the air impact analysis is oblivious to the role of meteorology in assessing air quality impact. There is no wind rose, there is no discussion of prevailing winds, there is no discussion of the relationship of climate, meteorology and valley land use to the air violations of the basin. The Initial Study fails to recognize that the residential receptors are usually downwind of the sources and are likely to be impacted more than the statistical average 10% used to adapt the SCREEN model results to annual exposure. The impact on residential receptors may be understated by as much as a factor of five.

[1] PM_{10} is monitored on a standard 6-day cycle with 61 measurements taken in a year; thus 10 samples over 50 ug/m^3 in a year is 10/61 total samples or a violation of the State standard 16 % of the time.

AI The BCAQMD has formulated an Air Quality Attainment Plan to provide measures to be implemented in order to achieve compliance with ozone standards. In that plan, and resulting regulations and guidelines, BCAQMD establishes procedures to evaluate new and existing sources of ozone precursors, and mitigation measures to be applied to those sources. These threshold values serve as significance criteria in the CEQA process. With the significance determination based on an emissions inventory or screening-level model, the more detailed model recommended in the comment is not necessary. By complying with these regulations and guidelines, the Applicant's project will not lead to violations of ambient air quality standards.

The Initial Study took into account the emissions inventory to determine that BACT would be required to mitigate the potentially significant impact of point-source air emissions. Other mitigation measures were provided for indirect sources related to construction impacts. BCAQMD has submitted a comment letter (Correspondence No. 5) that concurs with the required mitigation measures.

AI

Given the paucity of actual analysis, there is no way a lead agency could conclude that impacts had been mitigated to insignificance. To the contrary, the magnitude of project emissions and the already poor air quality of the surrounding region for ozone and PM10 suggest that an analysis would show a significant, unmitigated impact.

AJ

7) Omission of the probable cumulative impact of expansion of the project to the geological capacity of the gas field and a likely doubling of emissions.

The FEA and Initial Study describe the first phase of a multi-phase project. The first phase would use one of the larger geological units in a field with 12 recorded units. Future expansion of the field could more than double capacity, and corresponding emissions. This is clearly a significant, unmitigated impact.

The CEQA analysis must assess the cumulative air impacts of successive development. This analysis cannot be dismissed as "speculative" because the information is readily available and has probably been developed by the applicant as part of its economic feasibility studies. The Initial Study claims that further development is not "reasonably foreseeable", but ignores the Proponent's geological and marketing studies supporting a larger former project. The 1993 Wild Goose project was for a larger level of gas service and required a 24-inch connection to PG&E line 400/401 and had presumably had larger compression and withdrawal capacity (PEA p. 5-20, footnote). That analysis should be included to show the likely next step in project development and emissions.

Emissions are proportional to daily capacity, because of the equipment needed to inject and withdraw gas. Doubling capacity would increase maximum daily NOx emissions to around 380 pounds per day and increase the maximum annual potential to over 60 tons per year. The likely expansion of the project calls into question the suitability of relying on a 25 ton/year NOx cap. It seems that the approach of the Initial Study is to describe a project just below regulatory thresholds.

AK

b. Biological Resources

1) Sensitive Plant Species Impacts Not Mitigated to Insignificance

The impacts to rare plants are not mitigated by the proposed mitigation. Pipeline construction could cause impacts to several special status plant species if they are dug up during construction of the pipeline and well pad sites (p. 5-20 PEA). For example, Mitigations BR 1a through BR 1b state that floristically-timed surveys for California hibiscus and little mouse tail will be conducted prior to the start of construction and that any populations of the plants found during the surveys will be marked and avoided during construction. However, if the plant populations are directly in the zone (e.g. 75 feet wide) to be graded or otherwise disturbed for equipment staging, pipeline trenching or bore excavation, it will not be possible to avoid the populations of the plants during construction. Therefore, the mitigation measure will be ineffective in avoiding the stated impact.

AJ See response to comment 2AS.

AK The comments stated that impacts to rare plants, specifically the California hibiscus and little mouse tail, are not mitigated by the proposed mitigation. Although neither little mouse tail nor California hibiscus is a state or federally listed species, adequate mitigation measures are in place. Little mouse tail has extremely restrictive habitat requirements (soils) that are very uncommon in the project area. These soil locations and existing populations are already known and will be marked and avoided. California hibiscus, by contrast, is common in the project area and it may not be feasible to avoid all individual plants or clumps. Informal consultation with CDFG has led to more specificity in Mitigation Measure BR 1a by including the species in the wetland re-vegetation areas at a 1.2:1 ratio.

AL

2) Impacts to endangered and other special status wildlife not mitigated to insignificance

Impacts to the giant garter snake and other special status wildlife are not adequately mitigated to below a threshold of significance. The giant garter snake was historically relatively abundant in the floodplains and marshes of the major rivers of the Sacramento and San Joaquin Valleys. The Final Rule: Determination of Threatened Status for the Giant Garter Snake (58 FR 54053) October 20, 1993, found that the giant garter snake was threatened because: (1) the species was absent from most areas with seemingly suitable habitat (2) although some giant garter snake populations have persisted at low population levels in artificial wetland associated with agricultural and flood control activities, many of the altered wetlands are now threatened with urban development or agricultural practices that destroy habitat such as vegetation removal along canal banks. The giant garter snake suffers from predation by introduced bull frogs, changes in water management that reduce wetland, and poisoning or prey reduction from use of pesticides.

Impacts to giant garter snake are proposed to be mitigated by Mitigation Measure BR2 (BR 2a through BR 2h). Mitigation Measure BR 2b states that during spring field preparation, pipeline corridor strips in rice fields will be dried out with temporary checks to prevent giant garter snakes from using them during construction. This measure will not entirely prevent the garter snakes from using the checks because giant garter snakes can use the checks themselves for basking, foraging and dispersal, and have been known to travel over 200 yards upland from the shoreline of summer habitat (City of Sacramento: *Natomas Basin Habitat Conservation Plan*, November 1996). Consequently, the garter snakes may still use these corridor strips and checks during construction. In addition, if the snakes do use these temporary checks for basking, the bare, unvegetated soil will expose them to additional predation from raptorial birds such as hawks and eagles.

Likewise, Mitigation Measure BR2d (Table 2, p. 11), which states that all work areas, including ditches that are to be trenched for the pipeline, are dry for a minimum of 15 consecutive days before the start of construction to allow giant garter snakes to escape, will not prevent the snakes from using them or crossing them if they are in proximity to other wet habitat, especially if there are holes or crevices in the construction ditches where the snakes can seek cover.

Mitigation Measure BR 2e (Table 2, p. 11) states that within three days before start of construction in any area, a qualified wildlife biologist shall survey the project corridor for giant garter snakes and northwestern pond turtles and remove any that are found to suitable habitat away from the project. Mitigation BR 2f (Table 2, p. 11) states that during construction a qualified wildlife biologist will monitor construction and check all excavation areas and open tranches each morning to remove any giant garter snakes or northwestern pond turtles to suitable habitat away from the construction site. In practice, it will not be possible for even a highly qualified biologist to find every snake and pond turtle just prior to construction because the animals are secretive (hide in crevices, under rocks etc.) and are difficult to see. It will not be possible to completely avoid impact to either of these species through the implementation of measure BR 2d and BR 2e; therefore, the possibility of a 'take' of endangered species still exists.

AL To prevent significant impacts to the giant garter snake and the northwestern pond turtle, mitigation measures BR2a - BR2h were developed in conjunction with USFWS endangered species biologists during informal consultation. Protecting snakes from natural predation is not a goal of the Endangered Species Act. In regard to the bat species, field surveys have already been conducted in the appropriate season, under guidance from the California Department of Fish and Game, the California Department of Transportation, and appropriate authorization from the Butte County Public Works Department. No bats or bat sign from previous years was detected. A temporary barrier was installed on the West Liberty Road Bridge to prevent colonization by bats during construction and it is being maintained. The barrier will be removed after construction to allow any potential bat colonization. These measures will be effective in reducing potential impacts to insignificance.

Mitigation Measure BR 2g (Table 2, p. 12) states that within two weeks following construction disturbance at any ditch or canal, the banks shall be restored to original contours using stockpiled native topsoil to prevent permanent habitat loss for giant garter snake. This measure will not be effective in restoring giant garter snake habitat because the restored habitat must be vegetated with dense edge vegetation to provide cover for the snakes. While newly contoured bare ground adjacent to water may be occasionally used by the snakes, it does not provide them with the necessary cover to protect them from predation.

Mitigation Measure BR 4a (Table 2, p. 13) states that, during the last half of March, a qualified wildlife biologist will conduct preconstruction surveys of West Liberty Road bridge for special status bat species. If any bat species are found, that wildlife biologists from USFWS will be consulted for specific recommendations. This mitigation measure differs from the other biological measures in that it does not provide any specific guidance for avoiding the impact. The promise to consult with USFWS biologists is not a mitigation measure and implies that it was not possible, a priori, to come up with feasible mitigation to avoid the impacts to bats. This leads to the conclusion that if special status bats were discovered within the construction work area that the impact of the bridge replacement could be significant and unavoidable.

AM

c. Wetlands -- Distinction between "permanent" and temporary impacts unproven.

The Mitigated Negative Declaration finds (p. 46) that construction of the proposed project will cause approximately 17.6 acres of "temporary" wetland disturbance, including the disturbance of 9 acres of freshwater marsh for installation of the pipeline, and 5.06 acres of freshwater marsh and 3.64 acres of wet meadow from soil excavation from Goose Island for construction of the well pad and berm. In addition, there are projected to be 1.56 acres of permanent wetland loss (1.33 acres of freshwater marsh and 0.23 acres of wet meadow) due to fill for construction of the well pad and installation of the new bridge and access road.

The distinction between temporary and permanent loss of wetlands is important because, according to the Negative Declaration analysis, the amount of wetland affected by construction is more than 11 times the acreage that will be permanently filled. Thus, if the habitat restoration were not successful, the net amount of wetland permanently affected by the project could be more than 19 acres, rather than the 1.56 acres stated in the Negative Declaration, the project would have a substantially greater impact than stated, and the amount of compensatory mitigation would be accordingly greater. The distinction between temporary and permanent wetland loss assumes that by following the protocols outlined in the Wetland Mitigation and Monitoring Plan, the areas disturbed during construction will recover the full functions and values they had previously within one growing season, or remedial action will be taken (Mitigation Measure BR 5tg).

The principal means to restore the wetlands are the salvage of 1 foot of topsoil for replacement after construction and the re-grading to original contour, with discing (Mitigation Measure BR 5Te). Therefore, the "temporary" designation of the 17.6 acres of disturbance should not be made until such time as the marsh and wet

AM

In the Butte Sink area, uplands are a limiting factor, not wetlands. It takes significantly more effort to keep land dry than to allow it to become or revert to wetland. The purpose of mitigation monitoring and the provision of remedial measures is to ensure the success of the mitigation. The fact that potential remedial measures are part of the mitigation plan is an additional insurance, not a liability. There has been no doubt raised by the Army Corps of Engineers or any agency wetlands biologists who have visited the site that the disturbed areas are likely to recover within one growing season, as they are part of a managed wetland and are surrounded by wetlands.

Correspondence No. 2 (continued)

AM

meadow have been proven to be completely restored to their former functions and values. The inclusion of the remediation measure (BR 5Th), which includes regrading, topdressing with native soil, and planting of native plugs, seeds, or saplings, while commendable, implies that the initial natural revegetation attempt is unlikely to be successful.

As stated above under the discussion of the cumulative impacts of the full project, the assessment of total impacts to wetlands and other habitats must take into account the acreage that would be affected by the expansion of the gas storage to the full capacity of the field.

AN

d. Noise

1) Noise impact assessment used wrong methodology (Ldn or dBA vs. SEL methodology.)

The Negative Declaration states that noise from release valves and blowdown at the Remote Facility site could produce a maximum sound of as much as 120 dB per occasion, and would be considered severe to nearby sensitive receptors. Nearby sensitive receptors include the Gray Lodge Waterfowl Management Area immediately adjacent to the site, and several residences within about 1 to 1¼ miles of the remote Facility Site. Mitigation Measure NO 1a states that 'release valves and blowdown at the Remote Facility Site will be routed to the relief vent at the facility, which will be designed to produce a maximum of 75 dBA.' However, this is not consistent with the mitigation identified in the PEA, and may not be feasible.

The PEA (p. 11-6) states that the pressure release valves and pipeline blowdowns can produce over 120 dB each time a valve releases and that 'without proper mitigation, the sudden impulsive events of the pressure releases can be harmful to wildlife as well as humans within 3200 feet of the valve. The radius of effect from these impulsive releases could be extended by atmospheric conditions. Loud impulsive noises create a higher level of annoyance than steady noise levels.' The PEA states that 'pressure regulators will be installed in underground vaults or covered with an acoustical enclosure if their noise level will exceed 75 dBA Ldn at the property line' and that 'blowdown will be routed to the relief vent, which will be designed to produced no more than 75 dBA'. The PEA is deficient for not stating whether the 120 dB is measured as a source strength or some reference distance from the source (usually 50 feet). Without this information, it is not possible to determine how the sound level will attenuate between the source, the property line, and beyond.

This mitigation is essentially meaningless because the term '75 dBA Ldn' describes a 24-hour average sound level that is weighted for more intrusive noise at night, while the noise of the pressure relief valves and blowdown is short-term impulsive or 'single event' noise. Single event noise produces severe annoyance during the interval when it occurs, but has very little effect on the 24-hour average noise. Neither the PEA nor the Negative Declaration describes how frequently (times per day or per year) releases from pressure release valves and pipeline blowdowns will occur, nor how long each occurrence will last (e.g. how many minutes). The figure (11-3) in the PEA showing noise contours around the Remote Facility Site is

AN The PEA and Negative Declaration appropriately utilized the dBA scale to establish project impacts and specify mitigation for the pressure-relief valves, the sources of the impulsive, loud noise. However, the comment applies the Ldn scale used for the regulators to the pressure relief valves. The routing of blowdown and pressure release valves to a sound-controlled vent stack is a common practice in the oil and gas industry; noise control engineering in general at compressor stations and oil and gas production facilities is well developed and effective. The contours were produced for operational noise and appropriately applied the Ldn scale. The loud (120 dB) noise from the pressure relief valves are anticipated to be a rare event, occurring less than two times per year.

Correspondence No. 2 (continued)

also incorrect and misleading because it shows noise attenuation from a source producing 75 dBA Ldn rather than the contours for instantaneous or single-event noise events.

Since the ambient noise levels in the vicinity of the Remote Facility Site are currently very quiet (35 to 42 dBA), a sound source producing 75 dBA at the property line would be a major noise intruder, comparable to the constant noise of traffic on a freeway on an adjacent resident neighborhood.

If what the PEA really means is that the single-event noise level at each occurrence of blowdown or pressure release will not exceed 75 dB each time it occurs, it needs to clarify this point. However, it is not clear how the noise from blowdown routed to the relief vent can be reduced from 120 dB to 75 dB. The phrase "designed to produce no more than 75 dBA" does not prove that this is feasible, nor does the PEA's statement (p. 11-8) that "the relief vent will be field tested after installation to ensure that it does not exceed this level" establish feasibility.

2) Loud noises could impact waterfowl

AO

The Remote Facility Site is immediately adjacent to the Grey Lodge Waterfowl Management Area, which is considered one of the most important waterfowl habitats in the Sacramento Valley by the state and federal resource agencies. The refuge is important habitat for ducks, geese, swans, sandhill cranes, shorebirds, pheasants and raptors, many of which are also protected species (M. Lomax, CDFG, pers. comm.) During the hunting season, the intermittent loud noise from release valves and blowdown could scare up waterfowl in closed areas on the refuge and expose them to hunting.

CDFG biologists from the refuge indicated their concern if the noise from the gas storage facilities exceeded typical noise levels from farming equipment in the area, such as crop dusting aircraft. The noise of a crop dusting aircraft overhead would be about 70 dBA. The noise from a source producing a sound of 120 dB at 50 feet would attenuate at approximately 6 dB for each doubling of distance, which would mean that the sound would reach 70 dB at a distance of about 2 miles from the source. Thus, the sound level at the boundary of the Gray Lodge refuge would be virtually undiminished from the sound level at the source (i.e. extremely loud, which, as the PEA states (p. 11-8), is comparable to the sound from a diesel locomotive whistle or a commercial jet during takeoff), and nearly all of the Gray Lodge refuge would be impacted by sound louder than 70 dB, or louder than traditional crop dusting equipment. This is a significant impact that has not been proven to be mitigated by measures incorporated into the project.

3) Noise impacts from injection of cushion gas not analyzed

AP

The injection of the cushion gas that is necessary to pressurize the gas field would use compressors that would produce additional noise continuously over a period of 6-12 months, which is a substantial period of time (PEA pp. 2-2 and 2-5). The compressors are temporary skid-mounted units which will not be enclosed in sound-attenuating buildings. Therefore, the noise of these compressors could be substantially louder than the permanent compressors that will be used during

AO Project mitigation measure NO. 1 requires the reduction of the 120 dB noise down to 75 dBA. The analysis of the 120 dB noise included in the comment is therefore not relevant. Furthermore, the occurrence of this noise source is anticipated to be rare, occurring less than two times per year.

AP The noise consequences of the possible use of a rental compressor for cushion gas injection is addressed on p. 11-7 of the PEA, wherein the Applicant states that the unit will be equipped with sufficient noise attenuation to ensure excessive noise is not produced. Consultants for the Applicant state that the permanent compressor may be installed first and need for cushion gas injection; the impacts of the permanent compressor have already been addressed.

ongoing injection operations, which will be inside buildings.

AP This start-up compression noise source was not included in the analysis presented in either the PEA or the Negative Declaration. The environmental documentation must be revised to define the intensity and duration of the noise produced by the cushion gas injection compressors, and to add this noise to the other noise sources from the project that will be operating simultaneously to provide a picture of cumulative noise during the cushion gas injection period. Additional mitigation must also be proposed to determine whether this impact can be reduced to a less-than-significant level.

AQ e. Public Safety (fire, release of hazardous materials)

The PEA dispenses with the issue of operational fires at natural gas storage facilities with the blanket statement that: "storage providers wish to protect not only workers and the public, but their substantial investment as well. PG&E's McDonald Island gas storage facility suffered a fire in 1994. With conscientious inspection practices in place, a similar event at Wild Goose in considered highly unlikely". (p.12-5, PEA).

This statement is not a substitute for a real analysis of fire risk. Since the natural gas storage field, injection, transmission and compression systems all handle methane gas, a substance that is both flammable and explosive under enclosed conditions, there is an inherent risk associated with gas leakage resulting from failure of various parts of the system. Mitigation Measure HA 1a states that: "during normal operations, the Remote Facility site will be monitored by gas, fire, and vibration sensors which will activate ventilation, sprinkler systems, and/or initiate a system shut-down, as appropriate. The Well Pad Site will be equipped with emergency shutdown valves, including a master emergency shutdown valve on the main pipeline, to cut off the flow of gas from the well in case of certain conditions, such as fire or accidental release."

To support the conclusion of mitigation to a less than significant level, the PEA and the Negative Declaration should contain a risk analysis of the maximum worst case event (e.g. failure of the emergency gas shutdown system). The risk analysis should provide a realistic scenario of the event of gas leakage from a well or the pipeline in the event that the shutdown system malfunctioned. The risk analysis should use real data from other facilities where such events had occurred to predict the distance from the gas field and other facilities that could be subjected to fire or explosion under such a scenario, taking into account time of year (dry vegetation), fuel type, and meteorology. Once we have the results of the risk analysis which gives a credible prediction of the probability, frequency and consequences of the worst case occurrence, there can be a valid assessment of whether or not the impact is significant. The risk analysis should also address the probability, frequency, and consequences of lesser (but more probable) accident events using actuarial data from other similar facilities.

AQ See response to comment 2Q.

Correspondence No. 2 (continued)

AR

I. Energy

CEQA Appendix G states that excessive or wasteful use of energy would normally be considered significant. High project air emissions follow from high fuel consumption. Although CEQA explicitly requires a detailed consideration of energy use, the Initial Study dismisses the subject with the Proponent's assertion that the project is an energy benefit because its purpose is to meet peak demand periods.

Considering the CPUC's own position in Decision 93-02-013 that no demonstration of "need" be shown, the motivation for the project is solely the Proponent's business opportunity. The Initial Study can make no assessment of the potential benefit to the State's energy supply because the CPUC has received no information of the actual functioning of the project in this regard.

None of the documents offers any quantitative assessment of energy usage or any measure of the effectiveness of energy usage. However, fuel use can be deduced from PEA Table 4-4 and other sources. The compressor would operate a total of 2910 hours (injection cycle of 2190 hours added to 720 hours during withdrawal). With average heat rate and fuel value, the 2910 hours would consume some 223.1 MMSCF of natural gas. The reboiler would use 16.2 MMscf, with blowdown losses brings an annual usage to approximately 240 MMscf.

This volume of gas is equivalent to the annual consumption of 4,000 homes, and cannot be dismissed as insignificant. This natural gas is consumed as a parasitic energy loss, because its only purpose is to cycle gas through the system. This parasitic energy loss is on the order of 4% of the gas processed.[9]

Natural gas is not a renewable energy resource. The CPUC must examine carefully any new, large scale use of natural gas and may conclude that this magnitude of loss is a "wasteful use of energy," a significant impact. This gas use is not a fuel substitution of one form of fossil fuel for another, it is consumption of gas that would have been available for other use. The Proponent apparently has business connections to gas supplies in Canada that are remote from this market. Bringing the gas to market at a profit during periods of high demand is not the same thing as conserving energy.

Expansion of the project to full sale operation would similarly increase energy use. Establishment of the current phase may constitute a long term commitment of high energy consumption.

The Initial Study ignores a second aspect of energy use in the establishment of the cushion gas. As noted above in the comments on air quality impacts, the cushion gas needed to commence operation could be as much as 28 Bcf of gas. This volume will be placed in the field for an indeterminate period, until the project is abandoned. While the gas could then be recovered, without knowing the volume, the source, and the concurrent demand for gas during cushion injection, the CPUC

[9] The annual volume of storage is not stated in the PEA, but can be inferred to be in the range of 0 Bcf to 7 Bcf based on the injection capacity of 80 MMSCF/day and the 2190 hours of injection.

AR

The project seeks to reduce the gas supply limitations during periods of peak demand. This energy benefit more than offsets the minor gas consumption of the project infrastructure. There are certain periods of the year when natural gas is locally scarce--usually during the wintertime and during hot summer days when electricity demand is highest. During these periods, natural gas prices increase to reflect its scarcity value. Storage is a means of mitigating this scarcity. Using natural gas for injection when prices are low and natural gas is locally abundant is simply a cost of moving gas supplies from one period to another when supplies are more scarce. Thus, the Project uses natural gas during an abundant period to conserve gas for periods when it is scarce. This meshes precisely with the goal of enhancing availability of non-renewable resources when these resources are most valuable.

Correspondence No. 2 (continued)

AR

cannot determine that the start-up phase would not adversely impact energy supplies in the state.

Energy efficiency also bears on the choice of turbines fueled by natural gas as opposed to electrically powered compressors. According to the PEA, roughly 35% of the state's electrical energy is fossil fuel based (natural gas), and the balance is nuclear, hydro, etc. Shifting operation to electricity would possibly be more energy efficient and would potentially use less fossil fuel and more renewable resources.

Even accepting the Proponent's use of natural gas units, there is no appraisal of whether the units are energy efficient. There appears to be no provision for heat recovery or efficient use of the turbine exhaust. The AAC states that turbine exhaust would be produced at 907 °F (AAC D-2). This heat could be used productively, possibly for process heat to substitute for some of the glycol reboiler operation time. Any energy savings would also reduce air pollution in the basin.

AS

2. The impacts of the total project are not addressed.

The Negative Declaration describes a project which "will utilize approximately 50% of the field's total storage capacity" (p. 7 Neg. Dec), and "the Well Pad Site will consist of 1.5 acres within an 8.5-acre lease tract. The remaining 7 acres will be available should project expansion ever occur" (p. 7 Neg. Dec.). The Negative Declaration states (p. 19) that the proposed project scope is based on the reasonably foreseeable projected gas storage needs up to the year 2000. This seems to be a ridiculously short and unrealistic planning horizon considering that the project will not be on line before 1998. The statement in the Negative Declaration implies that any gas storage scenarios that go beyond the immediate short term may involve expansion of the project beyond the first phase.

In addition, piecemealing of project purposely understates the impact of the full project and gives a false impression of the level of the potential significance of the project impacts. Impacts of the full (i.e. actual project) would be much greater than the impacts stated, and impacts identified as less than significant could then become significant.

The PEA makes reference to the types of additional improvements that would be needed should the project be expanded. The PEA states (p. 2-37) under Section 2.9 Future Plans that:

> "In order to fully utilize the storage capacity of the field, additional wells may be drilled at the Well Pad Site and the project would need to either connect to PG&E's backbone gas transmission pipelines (Lines 400 and 401) west of Interstate 5 near Delevan in Colusa County, or establish a second connection to PG&E's gas transmission pipeline system elsewhere in the general area. Additional compressors and piping at the Remote Facility Site would also be required to handle any significant increase in capacity."

AS See response to comments 2U and 2W

The PEA does not contain any description or maps showing the route of these pipelines, their length, and the width of the right-of-way required to construct them. Based on a footnote on p. 5-20 of the PEA describing a larger project proposed in 1993, the connection from the well-pad site to "west of I-5 near Delevan in Colusa County" would require 24 miles of 30-inch pipeline, or 6 times the length of the 4-mile pipeline between the well pad site and the Remote Facility Site that was addressed in the Negative Declaration. Thus, the ultimate or expansion project would have potentially at least 6 times the impact of the shorter-term project. These impacts were not studied in the Negative Declaration. By not considering the impacts of the full project, the Negative Declaration artificially minimizes the impacts of the project.

The implications of this description are that a review of the complete project must include the assessment of the additional pipelines, wells at the Well Pad Site, compressors and piping at the Remote Facility Site as part of the total project. Based on the assessment of the project components as stated in the PEA and Negative Declaration, it is reasonable to infer that the expanded project would impact the following:

AS

(1) a larger area of wetland habitat than stated. The pipeline for the first phase of the project will impact 9 acres of wetland. (p. 45) A 30" pipeline would probably require a wider pipeline right-of-way than the 18" pipeline proposed for the first phase project. If the right-of-way required were 100 feet wide, a 24-mile pipeline would disturb 291 acres of land during construction. This disturbance area could produce significant environmental impacts to either wetland habitat or agricultural production. The extent and nature of the impacts to each habitat/land use type must be assessed;

(2) more endangered species habitat than stated, and/or additional special status species. The areas impacted by the expanded project components could affect habitat for the same special status species as the initial project, or could affect additional species. The environmental review for the Section 7 process must identify the species and extent of their habitat, and potential "take" that could result from construction of the full project, including the additional pipelines and expansion of the well pad and remote site facilities over the initial project;

(3) create more noise (higher intensity, longer period of time);

(4) consume more energy;

(5) produce greater air emissions than stated. The air quality comments above indicate that the air emissions of the full project could be double those of the initial project;

(6) affect additional cultural resources;

(7) have temporary and long-term transportation impacts greater than the initial project; and

Correspondence No. 2 (continued)

AS

(8) produce aesthetic impacts from equipment that may impact additional viewers or sensitive viewing locations such as scenic highways.

The environmental assessment of the full project must assess the impacts of the total project. Mitigation measures must then be formulated to address the full project impacts and reflected in the Jurisdictional Wetlands assessment and Mitigation and Monitoring Plan.

AT

3. **Deferral of mitigation. Many of the mitigations in the Negative Declaration are not true mitigations but are deferrals to future studies.**

The following mitigations listed below do not specify what the mitigation actually is, but defer mitigation to a future study or plan. This does not show that the mitigation is feasible or would be effective in reducing the impact to below a threshold of significance.

- Mitigation Measure GP1a: "Conduct geotechnical testing of well pad site and Remote Facility Site and incorporate appropriate design considerations."

  Enough information should be available during the environmental review process to insure that the liquefaction and subsidence conditions at the project site will not pose hazards to the project.

- Mitigation Measure GP4: "Prepare and implement a General Construction Storm Water Permit with a Storm Water Pollution Prevention Plan (SWPPP) and incorporate Best Management practices."

  The environmental documentation should identify what types of measures and BMPs will be effective in reducing erosion and sedimentation impacts from construction.

- Mitigation Measure HA 1a: "The Applicant will prepare and implement an Operating and Maintenance Plan, a Damage Prevention Plan, and an Emergency Response Plan, as required by the federal DOT. The Applicant will incorporate into the construction bid requirements for compliance with local and state fire prevention regulations. The Fire Prevention Plan will include preventative measures, training, and fire control suppression equipment. Additional details of the Fire Prevention Plan are provided in Section 12.6 of the PEA."

  In fact, Section 12.6 of the PEA does not provide any additional details except a few standard Best Management Practices, and reiterates that the contractor will submit a Fire Prevention Plan. The environmental document should identify the full spectrum of fire prevention and suppression measures that will have to be incorporated into the project in order to show that it is feasible to reduce fire risk to a less-than-significant impact. If these measures are to be in compliance with local and state fire codes, then the measures should be stated to show how they reflect compliance with the applicable code conditions.

AT

The environmental review of the project has not deferred assessment of potential effects; it has analyzed the potentially significant impacts and has required the appropriate mitigation to reduce impacts to a less-than-significant level. No future studies are required to complete a determination of impacts. "A condition requiring compliance with environmental regulations is a common and reasonable mitigation measure." *Gentry v. City of Murrieta (4th Dist. 1995), 36 Cal.App.4th 1359, 393-94, quoting Sundstrom v. County of Mendocino (1st Dist. 1988), 202 Cal.App.3d 296, 308.* A description of the physical implementation of the mitigation, however, has been deferred in certain cases where it is appropriate. A deferral of the techniques of implementation of mitigation measures is appropriate when a project proponent must satisfy measurable performance standards or criteria that, if met, will ensure the avoidance of any significant effects. Mitigation measures GP1a, GP4, HA1a, HA1c, and HA3 will be prepared in accordance with appropriate local, state and/or federal codes and regulations, and will be reviewed by CPUC and/or appropriate agencies. The Mitigation Monitoring Plan will ensure the attainment of these measures.

AT

- Mitigation Measure HA 1b: "The Emergency Response Plan for the facility, required by the DOT, will further outline fire safety, prevention and control systems at the Remote Facility. Additional fire suppression equipment may be required under the Butte County building permit process, and will be provided for the facility."

  The same comments apply as for HA 1a above.

- Mitigation Measure HA 1c: "The handling of hazardous substances during construction and operation of the Project will be managed in accordance with best management practices outlined in the facility's Stormwater Pollution Prevention Plan (SWPPP). In addition, a Hazardous Materials Release Response Plan (HMRRP) will be prepared, as required by the California Health and Safety Code. The HMRRP will identify the types of hazardous substances at the facility site, the types of wastes generated, storage and disposal practices, employee training, and emergency response procedures in case of a spill or release of a hazardous substance. Methanol and waste oils stored at the Remote Facility Site will be placed inside secondary containment systems to prevent the potential release of these materials. Due to the relatively small amount of hazardous substances that will be stored and used during operations, the best management practices to be followed will help ensure that hazardous substances will not have a significant impact on receptors in the Project area or elsewhere."

  The environmental document should include the information as above which is to be included in the HMRRP and list the best management practices that will apply in order for the public to judge whether the potential risks from hazardous substances can be mitigated to be a low threshold of significance through implementation of the stated measures.

- Mitigation Measure HA 3: "The Proponent will incorporate into the construction bid specification requiring compliance with the local and state fire prevention regulations. The Fire Prevention plan will include preventative measures, training, and fire control and suppression equipment. This plan will reduce the potential impact of fire hazard to existing vegetation to an insignificant level."

  The environmental document should contain enough detail regarding the potential fire risks and impacts, as well as the preventative and control measures that will demonstrate that the risk to onsite personnel and offsite properties can be effectively mitigated.

4. The project is a major project. The scale of the project is partially responsible for its significant environmental effects.

The purpose of CEQA is to assure that projects of this scale undergo appropriate public scrutiny so that all potentially significant effects have been identified and all feasible mitigations may be identified and incorporated into the project before approval. If the EIR finds that the project will produce one or more significant, not fully mitigable impacts, then in order to approve the project, the Lead Agency must find that there are overriding considerations that justify the acceptance of the unmitigable impacts.

CONCLUSION

It is clear from the foregoing analysis that the Wild Goose Gas Storage project will have potentially significant impacts on the environment, including air emissions, degradation of air quality, loss of wetlands and special status plant species, habitat loss, "take", and noise impacts to special status animal species, potentially wasteful use of energy, and public safety risk (fire or hazardous materials). None of these impacts has been shown by the Negative Declaration of the PEA to have been mitigated to below a threshold of significance, as defined by CEQA, and some impacts may not be fully mitigable to less than significant. In addition, the impacts of the project and the significance of its effects could be substantially increased if the full project utilizing the full capacity of the storage field were assessed. It is clear that an EIR must be prepared for the Wild Goose Gas Storage Project.

Thank you for the opportunity to provide these comments.

Sincerely,

Karen G. Weissman, Ph.D.

Thomas S. Reid

Correspondence No. 3

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May 1, 1997

VIA FACSIMILE AND FEDERAL EXPRESS

Bruce Kaneshiro, Project Manager
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California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102-3928

Re: Negative Declaration and Initial Study for Application A.96-08-058 - Application for Certificate of Public Convenience and Necessity for the Wild Goose Gas Storage Project by Wild Goose Storage, Inc. in Butte County

Dear Mr. Kaneshiro:

The Roseville Land Development Association (Roseville Land) submits the following comments on the Negative Declaration and Initial Study prepared for the Wild Goose Storage, Inc.'s Application for Certificate of Public Convenience and Necessity for the Wild Goose Gas Storage Project in Butte County. (Application A.96-08-058.)[1]

Roseville Land owns approximately 520 acres of land in Butte County. The Wild Goose Project proposes to install a highly-pressurized natural gas pipeline through approximately 5,250 feet of Roseville Land's property. Currently, Roseville Land leases the property to Feather Butte Farms pursuant to a crop share agreement. The present farm base acreage is approximately 423 acres. The current farming operation is devoted exclusively to rice farming. For the past three years the average total yield has been 25,327 hundred weights of rice. Roseville Land's property also provides wildlife habitat for deer, pheasants, rabbits, waterfowl and other wildlife. The southern border of the property contains approximately 61 acres of wetlands which borders the State of California's Gray Lodge Waterfowl Refuge. Roseville Land also permits its members and shareholders to use the property for hunting during the permitted seasons.

A. Pursuant to CEQA, the California Public Utilities Commission Must Prepare an Environmental Impact Report Prior to Approving the Wild Goose Storage Project.

The California Public Utilities Commission (CPUC) seeks to approve the Wild Goose Storage Project by relying upon a mitigated negative declaration. The proposed Mitigated Negative Declaration, however, does not adequately address and mitigate the significant impacts associated with the proposed project. Therefore, pursuant to the California

[1] On April 24, 1997, in a telephone conversation with Donald B. Mooney, you provided Roseville Land a three-day extension to submit written comments on the Negative Declaration and Initial Study. A copy of the letter from Donald B. Mooney confirming the extension is attached to these comments as Attachment A.

A In conducting the Initial Study for the Wild Goose, the CPUC determined that there was the potential for significant environmental impacts from the project in several areas. CEQA also authorizes the lead agency to assess whether mitigation proposed by the applicant for the project or agreed to by the applicant before public review, would avoid the effects or mitigate the effects to a point where clearly no significant effect on the environment would occur, Public Resources Code Section 21080(c)(2). In carrying out its responsibilities under CEQA, CPUC determined that the potential for significant environmental

A

Environmental Quality Act (CEQA), Public Resources Code, section 21000 and following, the CPUC must prepare an environmental impact report (EIR) prior to approving the Wild Goose Storage Project.

Under CEQA there is a strong presumption in favor of preparing an environmental impact report. If a project is not exempt and may cause a significant effect on the environment, the lead agency must prepare an EIR. (Pub. Resources Code, §§ 21100, 21151; CEQA Guidelines, §§ 15064(a)(1), (g)(1)[1].) Whenever substantial evidence in the record supports a "fair argument" that a project may have a significant effect on the environment, the lead agency must prepare an EIR. (*Laurel Heights Improvement Ass'n v. Regents of Univ. of Cal.* (1993) 6 Cal.4th 1112, 1123; *No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.3d 68, 75, 82.) "Significant effect upon the environment" is defined as "a substantial or potentially substantial adverse change in the environment." (Pub. Resources Code, § 21068; CEQA Guidelines, § 15382.) A project "may" have a significant effect on the environment if there is a "reasonable possibility" that it will result in a significant impact. (*No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.3d 68, 83 n.16.) If any aspect of the project may result in a significant impact on the environment, an EIR must be prepared even if the overall effect of the project is beneficial. (CEQA Guidelines, § 15063(b)(1).) If substantial evidence supports a "fair argument" that a project may have a significant environmental effect, the lead agency must prepare an EIR even if it is also presented with other substantial evidence indicating that the project will have no significant effect. (*No Oil, Inc. v. City of Los Angeles*, supra, 13 Cal.3d at 75, 82.)

If the proposed project is modified in response to the preparation of an Initial Study to avoid significant impacts, CEQA provides that the lead agency may prepare a negative declaration based on the project as modified. (Pub. Resources Code, § 21080(c)(2); CEQA Guidelines, § 15070(b).) A *mitigated negative declaration, however, may only* be adopted if all potentially significant effects of the project will be avoided or reduced to insignificance. (Pub. Resources Code, § 21080(c)(2); CEQA Guidelines, § 15070(b).) A mitigated negative declaration will be set aside if the conditions attached to its adoption are insufficient to mitigate project impacts. (See *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296.) If there is substantial evidence in the record that the project may have one or more significant impacts on the environment despite modifications, a negative declaration is improper, and an EIR is mandatory.

In the present situation, based upon substantial evidence, there is a fair argument that the proposed project may have a significant effect on the environment. Several of the proposed mitigations do not adequately mitigate the impacts to less than significant. Additionally, several of the proposed mitigation measures are not consistent with the California Endangered Species Act (CESA), Fish and Game Code, section 2050 and following, and, thus, do not result in mitigating the significant environmental impact to less than significant.

B

1. The Mitigated Negative Declaration and Initial Study Fail to Determine that Some of the Significant Environmental Impacts to Biological Resources Are Reduced to Less Than Significant

The Initial Study indicates that project construction could cause loss of individuals or populations of two special status plant species, the California hibiscus and the Little mouse-tail. (Initial Study, Impact BR 1 at p. 42.) The Initial Study also indicates that project construction could result in degradation or loss of special habitat for these two special status plant species.

[1] The CEQA Guidelines are set forth at California Code of Regulations title 14, section 15000 *et seq.*

A (Continued)

impact will be mitigated by actions incorporated by the applicant into the project, and now required by this mitigated negative declaration. CPUC has concluded that with the mitigation measures required in the Negative Declaration, there is no substantial evidence in light of the whole record before this agency that the project, as revised, may have a significant effect on the environment. The following sections discuss that conclusion in the context of the specific comments raised regarding the adequacy of the proposed mitigation.

B See responses to comments 2AK and 2AL.

B

(*Id.*) Additionally, the Initial Study indicates that project construction could cause temporary degradation or permanent loss of habitat for Giant garter snakes and Northwestern pond turtles. (Initial Study, Impact BR 2 at p. 42.) The Initial Study then discusses the proposed mitigation measures for both of these significant impacts. However, the Initial Study fails to conclude or determine that the proposed mitigation measures will result in the significant impact being reduced to less than significant. (Initial Study at pp. 42-49.) Therefore, absent a determination that the project's significant environmental impacts have been reduced to less than significant, the CPUC must prepare an EIR.

C

2. The CDFG Lacks the Authority to Issue Incidental Take Permits for the Proposed Project

Two of the proposed mitigation measures for the significant impacts to Giant garter snakes and Northwestern pond turtles rely upon the availability of incidental take permits issued by the California Department of Fish and Game (CDFG) and the United States Fish & Wildlife Service (USFWS). (See Initial Study, Mitigation Measures BR 2e and 2f, at p. 43.)[3] The proposed mitigation measures assume, without any discussion, that CDFG and USFWS will issue the incidental take permits. The issuance of the incidental take permits, however, is not a foregone conclusion. Incidental take permits are not likely to be issued as assumed, so the CPUC must address this unmitigated significant impact by preparing an EIR.

The CDFG's issuance of such incidental take permits has been held to violate the California Endangered Species Act (CESA), Fish and Game Code, section 2050 and following. (*Planning and Conservation League* v. *Department of Fish and Game* (1997) 97 Daily Journal D.A.R. 4725; *San Bernardino Valley Audubon Society* v. *City of Moreno Valley* (1996) 44 Cal.App.4th 593.) In *Planning and Conservation League*, the court held that section 2081 of the Fish and Game Code does not provide CDFG the authority to issue incidental take permits in connection with land development or other private lawful activities. (*Planning and Conservation League, supra*, 97 Daily Journal D.A.R. at 4729; see also *Moreno Valley, supra*, 44 Cal.App.4th at 604.) In *Moreno Valley*, the court limited CDFG's management take authorization under section 2081 to those projects which contribute to the long-term conservation, protection, restoration, and enhancement of species. (*Moreno Valley, supra*, 44 Cal.App.4th at 604; see *Planning and Conservation League, supra*, 97 Daily Journal D.A.R. at 4728.) Thus, CDFG has no authority to authorize an incidental take in connection with a project having nothing to do with species conservation. (*Planning and Conservation League,*

[3] Mitigation Measure BR 2e provides in part that:

> Within three days before the start of construction in any area, a qualified wildlife biologist shall survey the project corridor for Giant garter snake and Northwestern pond turtle. If Giant garter snakes or turtles are found, they shall be removed by a biologist with *appropriate CDFG and USFWS permits* to suitable habitat away from the project, and wildlife biologists from CDFG and USFWS shall be notified. (Emphasis added.)

Mitigation Measure BR 2f provides in part that:

> During construction, a qualified wildlife biologist shall monitor construction and shall check all excavation areas and open trenches each morning at a minimum to ensure that no Northwestern pond turtles or Giant garter snakes are taken or trapped. If Giant garter snakes or turtles are found they shall be removed by a biologist with appropriate CDFG and USFWS permits to suitable habitat away from the project, and wildlife biologists from CDFG and USFWS shall be notified.

C

Completion of the Wild Goose project requires numerous state and federal permits. Although giant garter snakes have not been recorded on the project property, they are assumed to occur. The giant garter snake is both federally and state listed. USFWS has the authority to issue a federal incidental take permit for the species. As CPUC is the state lead agency for the project, CDFG has the authority to issue a state incidental take permit for giant garter snake pursuant to Section 2091 of the California Endangered Species Act (CESA). See *Planning and Conservation League v. Department of Fish and Game* (1997), Daily Journal D.A.R. 6087-88. Mitigation measures were developed in conjunction with USFWS endangered species biologists and are assumed to meet federal and state requirements to prevent a take of giant garter snakes or northwestern pond turtles. These measures were designed to enhance the habitat for giant garter snakes and northwestern pond turtles, and thus involve species conservation, protection, restoration, and enhancement of the species. Consultation with USFWS is expected to result in an incidental take permit under Sections 7 and 10 of the Endangered Species Act. Consultation with CDFG is expected to result in a similar authorization under the CESA as noted above. In addition to these permits which will be issued for the project, the qualified biologist will also have the appropriate authorizations from the agencies (collection permits) to handle the special status species. These measures will be effective in reducing the impacts to insignificance.

C

supra, 97 Daily Journal D.A.R. at 4729.) As a result of CDFG's inability to issue the incidental take permits called for in Mitigation Measures BR 2e and 2f, this significant impact cannot be mitigated as proposed in the Initial Study and Negative Declaration. Therefore, the CPUC must address this unmitigated significant impact through the preparation of an EIR which would provide alternatives to the proposed action that are designed to lessen the significant impacts.

D

3. The Mitigated Negative Declaration Fails to Adequately Mitigate Significant Impacts to Special Status Plants That Are within the Project's Construction Zone

Mitigation Measures BR 1a and BR 1b provide that, before the start of construction, surveys will be conducted to locate two special status plant species, the California hibiscus and Little mouse-tail. The mitigation measures further provide that the locations shall be marked and protected during construction. For the Little mouse-tail, the locations will be marked as exclusion zones on construction plans. The mitigation measures, however, fail to discuss what measures will be taken if either the California hibiscus or Little mouse-tail are located within the area where either the pipeline, the Well Pad Site or the Remote Facility Site will be located. The Initial Study states that project activities will avoid areas where these special status plant species are located. Does this mean that the pipeline will be re-routed if necessary, or either the Well Pad Site or Remote Facility Site relocated? The Initial Study and Negative Declaration should address the situation of either of the two special status plant species being discovered in a proposed construction area that cannot be avoided.

E

4. The Initial Study and Mitigated Negative Declaration Fail to Address the Growth Inducing Impacts of the Wild Goose Storage Project

Calpine Corporation has recently proposed a 480 megawatt electric power plant in Sutter County. The plant would be fueled by natural gas. It is proposed as a merchant plant.

Gas storage facilities in California have been associated with utility electricity generation. An EIR should explore the extent to which the Wild Goose Storage Project will induce growth in merchant electric power plant development in the immediate area, with a concomitant increase in air pollution in the Sacramento Valley.

F

5. The Initial Study and Mitigated Negative Declaration Fail to Adequately Discuss Risks from Ignition, Explosion and Fire

Ignition, explosion, and fire risks are inadequately discussed in the environmental documents.

The Wild Goose project will compress gas to 2000 pounds per square inch gauge, about four times more than the pressure in Line 167. (Wild Goose Gas Storage Project Proponent's Environmental Assessment (PEA) at p. 2-2) This extremely high pressure will be maintained from the compressor at the Remote Facility Site over four miles to the Well Pad Site. (*Id.*) The Remote Facility Site, which has the compressor and the vents, is the most likely site for ignition. Should gas drift from the vents or leak within the compressor structure, where the turbine presents a substantial ignition source, a cataclysmic explosion could result. Damage to the controls housed in the structure could at least implicate the entire four miles of pipeline as the gas supply for a major flare. Any anomalies in the shut down valves at the Well Pad Site or at Line 167 could cause explosion and fire risks far beyond the capabilities of the rural fire suppression force. Given the volume and pressure of the injected gas, an inadequate

D See response to comment 2AK.

E There is no association between the proposed Calpine Corporation electric power plant and the Wild Goose Gas Storage Project. There is no basis other than speculation for assuming any correlation between an increase in merchant electric power plant development in the immediate area with the project or link with air pollution levels in the region.

F The project design has incorporated several proven components to address explosion and fire risks. Extensive fire control equipment will be installed at both locations, which are described in general in the PEA. In addition, the facility will develop and maintain a Fire Prevention Plan, in accordance with local and state regulations. The facility will not be allowed to operate unless the Fire Prevention Plan is deemed acceptable and complete by local and state officials. It should be noted that intrastate and interstate natural gas compressor stations operate continuously at high pressures, and that proven technology exists for monitoring the safety of these high pressure systems, and dealing with worse-case contingencies as they occur.

initial emergency response could result in an enormous public health risk. An EIR must be prepared to explore the design risks and emergency response capabilities proposed as mitigation measures. Computer modeling for ignition risks is available.

6. Air Quality Impacts Have Not Been Mitigated by Best Available Control Technology

G

The compressor is expected to produce 30.6 tons of NO_x annually. (PEA at p. 4-9, Table 4-4.) Selective catalytic reduction (SCR) technology, ubiquitous on new gas turbine electric generating stations in the Sacramento Valley, is not proposed, even though that technology may reduce NO_x emissions to 9 ppmv, roughly one-third of the proposed project's emissions. (See PEA at p. 4-13 to 4-14.) Instead, lean pre-mix technology is proposed as the appropriate Best Available Control Technology (BACT) because of the potential for ammonia "slip." (PEA at p. 4-13.)

An EIR must disclose the other technical solutions for the variable compressor speeds and the potential for ammonia "slip," which may include computer regulated ammonia injection. Anything less than a full discussion of this issue would risk an inordinate NO_x load unnecessarily.

B. The Mitigated Negative Declaration Improperly Relies Upon Mitigation Measures That Might Be Recommended in the Future

H

Mitigation Measure BR 4 provides that "project construction could cause temporary disruption of summer roosting or maternity colonies of special status bat species, or permanent abandonment of an area by the species." (Initial Study at p. 44.) The proposed mitigation provides that if bats are found as a result of the preconstruction survey, the USFWS will be consulted for specific recommendations. (Mitigation Measure BR 4a, Initial Study at p. 44.) This proposed mitigation measure violates CEQA. A negative declaration requiring formulation of mitigation measures at a future time violates the rule that members of the public and other agencies must be given an opportunity to review mitigation measures before a negative declaration is approved. (Pub. Resources Code, § 21080(c)(2); CEQA Guidelines, § 15070(b)(1); see *Gentry v. City of Murrieta* (1995) 36 Cal.App.4th 1359, 1396 (condition requiring applicant to comply with mitigation measures that might be recommended in a future report on the Stephens kangaroo rat was improper); *Oro Fino Gold Mining Corp. v. County of El Dorado* (1990) 225 Cal.App.3d 872, 884 (condition requiring that reclamation, erosion, dust, and fire control plans be formulated after approval of mitigated negative declaration was improper); *Sundstrom v. County of Mendocino*, *supra*, 202 Cal.App.3d at 306 (condition requiring that mitigation measures recommended future study to be conducted by civil engineer evaluating possible soil stability, erosion, sediment, and flooding impacts was improper).)

The CPUC may not approve this mitigated negative declaration because the mitigation measures to be implemented will be determined at some future point based upon the recommendation of another agency. Under Mitigation Measure BR 4a, there will be no public review of the specific recommendations from the USFWS, which would amount to the mitigation measures. Additionally, nothing within proposed Mitigation Measure BR 4a requires Wild Goose to follow the USFWS recommendations. The mitigation measures only require that Wild Goose notify the USFWS if any special status bat species are located and to consult USFWS for specific recommendations. CEQA requires that the mitigation plan be formulated to ensure adequate mitigation of potential impacts and the mitigation be effective. (See *Sundstrom v. County of Mendocino*, *supra*.)

G

Consultation with the BCAQMD indicates that they will require some form of BACT as part of their permit conditions. It is unlikely to be selective catalytic reduction, because although it is used on new electric generating stations in the Sacramento Valley, the proposed unit is not an electric generating station. Such facilities employ gas turbines that are orders of magnitude larger than those used for gas compression, and the operating conditions are entirely different. SCR has rarely, if ever, been successfully used on installations similar to the Wild Goose project.

H

See response to comment 2AL regarding special status bat species.

In regard to short-term impacts to migrating birds during the construction phase, mitigation measures for impacts BR 3 and BR 5T and BR 5P are very specific and will be effective in reducing those impacts to an insignificant level. Migratory birds include both nesting birds (discussed in BR 3) and those migratory waterfowl using the property during the winter non-nesting months. The measures discussed in BR 3, BR 5T, and BR 5P will be adequate in reducing the potential short-term construction phase impacts to migrating birds to an insignificant level.

Mitigation Measure BR 6 has been corrected to reflect this comment as follows: "Based on coordination and consultation with appropriate resource agencies, the mitigation measures for impacts BR 3, BR 5T, and BR 5P will reduce these potential impacts to an insignificant level. No additional mitigation measures are necessary."

Impact BR 6 states that the project may result in short-term impacts to the use of some of the corridor by migrating birds during the construction phase. (Initial Study at p. 49.) Proposed Mitigation Measure BR 6 provides that "based on coordination and consultation with appropriate resource agencies, the mitigation measures for Impact BR 3 and BR 5 will reduce these potential impacts to an insignificant level. No additional mitigation measures are necessary." The proposed Mitigation Measure BR 6, like previous mitigation measures, relies upon coordination and consultation with "appropriate agencies" to mitigate the impact. The mitigation measure fails to specify the activity that will be undertaken to mitigate the impacts. The only obligation is to coordinate and consult with appropriate agencies. There is no obligation, through this mitigation measure, to take any action that would mitigate the significant impact. The only obligation is for Wild Goose to consult the appropriate agencies. Therefore, this proposed mitigation measure does not adequately mitigate the significant impact to the use of some areas of the corridor by migrating birds during the construction phase.

Impact BR 6 states that the project may result in short-term impacts to the use of some of the corridor by migrating birds during the construction phase. (Initial Study at p. 49.) Proposed Mitigation Measure BR 6 provides that "based on coordination and consultation with appropriate resource agencies, the mitigation measures for Impact BR 3 and BR 5 will reduce these potential impacts to an insignificant level. No additional mitigation measures are necessary." Although there is an Impact BR 3, there is no impact identified as BR 5. It is unclear whether the impact referred to is Impact BR 5T or some other impact and associated mitigation measures. (See also Mitigation Monitoring Plan, Table 2, Page 14.) As a result of this error, in order to review the proposed mitigation measures, the commentor is forced to speculate as to which mitigation measures would be utilized. The Negative Declaration should be corrected to identify the mitigation measures that will be utilized to reduce this impact to less than significant.

C. The Proposed Negative Declaration Fails to Adequately Address the Expanded Wild Goose Project

The proposed mitigated negative declaration for the Wild Goose Storage Project is inadequate because it is limited to the initial phase of the project and fails to address the fully developed project. The result is a piecemeal approach to evaluating the environmental impacts associated with the entire natural gas storage project as envisioned by Wild Goose. CEQA specifically prohibits this piecemeal approach.

CEQA requires that a project be evaluated in its entirety and not piecemeal. Environmental considerations cannot be concealed by separately focusing on isolated parts, overlooking the cumulative effect of the whole action. (See *Bozung v. LAFCO* (1975) 13 Cal.3d 263, 283; *City of Sacramento v. State Water Resources Control Bd.* (1992) 2 Cal.App.4th 960.) A public agency may not divide a single project into smaller individual subprojects to avoid responsibility for considering the environmental impact of the project as a whole. (*Orinda Ass'n v. Board of Supervisors* (1986) 182 Cal.App.3d 1145, 1171.) CEQA "cannot be avoided by chopping up proposed projects into bite-sized pieces which, individually considered, might be found to have no significant effect on the environment or to be only ministerial." (*Plan for Arcadia, Inc. v. City Council* (1974) 42 Cal.App.3d 712, 726.)

In the present situation, the Negative Declaration states that "[t]he Well Pad Site will consist of 1.5 acres within an 8.5-acre lease tract. The remaining 7 acres will be available should project expansion ever occur." (Negative Declaration (Neg. Dec.) at p. 7.) The Negative Declaration further provides that "[a] 5-acre tract for the Remote Facility Site will be purchased in fee or obtained under a long-term lease agreement. Initial site development will

See response to comment 2U.

occupy approximately 3 acres, with the remaining two acres serving initially for temporary construction staging and material storage, and ultimately as a buffer area while it is held in reserve should project expansion ever occur." (Neg. Dec. at p. 8.) Additionally, Wild Goose has obtained 80 percent of the necessary leasehold interests for the subsurface rights. (See CPCN Application at pp. 10-13.) Although Wild Goose intends to use the remaining 20 percent, Wild Goose has not been able to locate the owners to the subsurface rights. (CPCN Application at p. 13.) Thus, Wild Goose does not intend to secure the remaining 20 percent mineral interests, but instead await the assertion of any claims brought against it and then exert its claimed rights of eminent domain granted under the certificate. (*Id.*)

1. Expansion of the Well Pad Site

J The Initial phase of the project is specifically designed to accommodate planned expansion of the project and project facilities. Despite this planned project expansion, the Initial Study and Mitigated Negative Declaration fail to discuss the significant environmental impacts associated with an expanded project and to provide the necessary mitigation. It is not reasonable for Wild Goose or the CPUC to piecemeal the CEQA approval process for the entire project. The fact that Wild Goose only seeks approval of the project's initial phase is not a basis under CEQA for refusing to evaluate the significant environmental impacts of the fully developed project.

In the initial phase of the Wild Goose Project, the Well Pad Site will consist of 1.5 acres of land that will be elevated approximately 5 feet to the level of the existing access road and surrounded by an earthen perimeter berm. The Negative Declaration, however, fails to discuss the size of the Well Pad Site for the subsequent phases of the project. Will the fully developed project require that the entire 8.5-acre lease tract be built up to a Well Pad Site? Will that entire tract also be elevated and have an earthen berm placed around it? Will additional wetlands be lost as a result of developing the 8.5-acre Well Pad Site? Will there need to be additional property required for a buffer to the expanded Well Pad Site? How many cubic yards of fill material will be required to elevate the site and construct the earthen berm around an 8.5-acre Well Pad Site? Will this additional fill material also be taken from the four adjacent locations on Wild Goose Club property? Will other locations be utilized for the fill site? Will the larger Well Pad Site be more susceptible to liquefaction during seismic events?

The Negative Declaration must also discuss what additional surface facilities would be required for the project upon expansion. Will there need to be additional methanol and corrosion inhibitor storage tanks? If so, how many and what size?

2. The Remote Site Facility

K Wild Goose has obtained an interest in a five-acre parcel for the Remote Site Facility. The initial phase of the project provides for the Remote Site Facility to occupy three of the five acres, with the remaining two acres to act as buffer. However, upon full development of the project the Remote Site Facility will be expanded to include the two-acre buffer. The Initial Study and Negative Declaration, however, fail to address the significant impacts associated with a five-acre Remote Site Facility. They also fail to discuss whether, upon full development, there will be a similar buffer around the Remote Facility Site.

3. The Pipeline

L The Negative Declaration makes brief reference to the need for an additional pipeline once the project is fully implemented. (Neg. Dec. at p. 19.) Moreover, the Negative

J See response to comment 2U.

K See response to comment 2U.

L

Declaration identifies two possible connections for the additional pipeline. (*Id.*) However, neither the Initial Study nor the Negative Declaration provide any discussion as to significant impacts associated with a second pipeline. The result is that Wild Goose has proposed a project which at full implementation will require the installation of two highly pressurized natural gas pipelines, but only seeks to conduct environmental review of the pipeline that will serve the initial phase of the project. Again, CEQA specifically forbids this piecemeal approach to environmental review. If the additional pipeline is near or adjacent to the proposed pipeline, there may be cumulative effects which do not otherwise appear significant.

M

4. Wild Goose's Argument That There Are No Foreseeable Plans for Full Project Development Is without Merit

Wild Goose argues that there are no foreseeable plans for future development of the natural gas storage project. Additionally, Wild Goose argues that the initial phase of the proposed project is based upon the projected gas storage needs up to the year 2000. (Neg. Dec. at p. 19.) This, however, is an artificial and arbitrary date selected by Wild Goose in an effort to avoid environmental review of the fully developed project. If Wild Goose has decided to pursue this project based on storage needs up to the year 2000, considering the 1998 completion date for the project's initial phase, then the development of this project is based upon forecasted storage needs of just over one year.

While this project is being built based upon less than a two-year projection, Wild Goose has indicated that it expects the life of the project to exceed 30 years. (Neg Dec. at p. 19; PEA at p. 2-37.) Thus, according to Wild Goose, it intends to build a 30-year-plus project. It would not be prudent to invest the capitol for such a project, unless one expected demand to promote project use and expansion.

Wild Goose's attempt to limit environmental review to only the initial phase of the project based upon the projected gas storage needs up to the year 2000, in addition to not being supported by Wild Goose's purchase or lease-interest in all the necessary land and mineral rights for the expanded project, is also not supported by the California Energy Commission's (CEC) natural gas supply assumptions. According to the CEC, natural gas demand in California is projected to grow at an annual rate of 1.5 percent from 1997 to 2017. (California Energy Commission, 1995 Natural Gas Outlook, Staff Report, October 1995 (1995 Natural Gas Outlook) at p. 7.)[4] During the same period, natural gas prices will continue to increase in California. Industrial gas prices will increase 1.4 percent to 2.6 percent annually depending on the utility service territory. (California Energy Commission, Fuels Report, December 1995 (Fuels Report) at p. 57;[5] 1995 Natural Gas Outlook at p. 6.) Prices for natural gas consumed in the electric generation sector will rise 2.1 percent to 2.7 percent per year. (Fuels Report at p. 57.) Over 85 percent of California's natural gas requirements are satisfied from out-of-state regions. (1995 Natural Gas Outlook at p. 65.) As a result, California competes for the available supplies of natural gas with other demand regions across the United States and Canada. (*Id.*) Thus, there is substantial evidence that demand for natural gas within California will continue and continue to increase.

N

Based upon the foregoing, substantial evidence within the Negative Declaration, the Initial Study, the PEA, the CPCN Application, and the CEC reports, clearly indicates that it is

[4] The CPUC may take official notice of the 1995 Natural Gas Outlook, Staff Report, October 1995.

[5] The CPUC may take official notice of the California Energy Commission Fuels Report, December 1995.

L See response to comment 2U.

M The commenter asserts: (1) that the Project is not financially and economically viable without future expansion, and (2) that increased state-wide natural gas demand will require that the project be expanded. The commenter then argues that facility expansion is "reasonably foreseeable" based on these projections.

The Commission has decided in its 1993 Storage Decision (93-02-013) not to test gas storage projects for need if the risk of unused capacity resides with the project sponsors and their customers. Conversely, the Applicant for the Wild Goose project also bears the responsibility for the financial viability of the scale of the proposed project since there is no assurance that an expanded project would be approved. The relatively short-term prediction of gas storage needs by WGSI is made in the context that WGSI would be the first independent gas storage provider in California. See responses to comments 2 U and 2 W.

As to whether increased state-wide natural gas demand will require expansion of the Project at some future date, the commenter fails to make a logical connection. First, the commenter relies on a single-point forecast out of a document which supplies at least three such forecasts (*1995 Natural Gas Outlook*). The California Energy Commission has provided a range of forecasts to reflect the great uncertainty about future natural gas demand. Second, even if state-wide demand were to increase, the Project need not be expanded to accommodate the increased demand--the higher demand may simply lead to higher prices for the existing Project services, thus increasing its financial viability. Other facilities may be constructed or expanded instead, such as interstate pipelines or other storage to meet the increased demand. To assume that a relatively minor facility such as Wild Goose will be expanded to accommodate an uncertain growth in demand is highly speculative. Such analysis would require a large-scale systems or programmatic analysis well beyond the scope of this CEQA review.

N

initial phase of the storage project is part of a much larger overall project. Wild Goose has already obtained the necessary property and mineral interests. Whether or not Wild Goose moves forward with the expanded project at some future point, based upon market considerations, the obligations of CEQA require that the CPUC evaluate the whole project.

The brief discussion on page 19 of the Negative Declaration regarding Wild Goose's future plans does not adequately discuss the facilities required to expand the project nor the impacts associated with such impacts. Additionally, the proposed negative declaration states that "based on the results of the Initial Study, there is a reasonably foreseeable potential for significant impacts associated with the full development of WGSI's storage capacity." (Neg. Dec. at p. 22.) Despite this acknowledgment of significant environmental impacts associated with the full development of the project, the negative declaration dismisses any further discussion of these significant impacts and postpones such discussion until Wild Goose implements the additional phases of the project. The Negative Declaration states that "as market conditions warrant, expansion of the project may be proposed in *multiple additional phases*." (Neg. Dec. at p. 19, emphasis added.) Such a piecemeal approach is in direct conflict with the requirements of CEQA and the CPUC's obligations and responsibilities as the lead agency.

The Negative Declaration or any subsequent environmental document for this project (i.e., an EIR) must provide a complete description of the entire project and all significant impacts associated with full development. If Wild Goose does not seek to have the CPUC approve all phases of the project at this time, that does not alleviate the responsibility under CEQA that environmental review be conducted for the entire project. Therefore, the CPUC should reject the proposed mitigated negative declaration and direct Wild Goose to submit the required environmental documents that address the fully developed project and all of its significant environmental impacts.

Although portions of the project may change after implementation of the initial phase, whether they be pipeline locations, the size of the Well Pad or Remote Facility, such changes do not excuse the CPUC's responsibility under CEQA to conduct a full environmental review at the initial phase of the project.

One of the primary purposes of CEQA is to inform government decision-makers and the public about the potential significant environmental effects of proposed projects (CEQA Guidelines, § 15002(a)(1)) and to disclose to the public the reasons for approval of a project that may have significant environmental effects. (CEQA Guidelines, § 15002(a)(4).) Informed decision-making and public participation are fundamental purposes of the CEQA process. (See *Citizens of Goleta Valley* v. *Board of Supervisors* (1990) 52 Cal.3d 553.)

In the present situation, the PEA, the Initial Study and the proposed Negative Declaration fail to inform the decision-makers and the public about the potential significant environmental impacts associated with the Wild Goose Storage Project. Instead, these documents, at best, provide information regarding only the initial phase of a much larger project.

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D. The CPUC Should Consider Alternative Pipeline Routes and Well Pad Sites to Reduce the Amount of Significant Environmental Impacts

CEQA provides that a public agency should not approve a project if feasible alternatives or feasible mitigation measures are available that would reduce their significant environmental impacts. (Pub. Resources Code, § 21002.) As discussed in these comments, not all project

N See response to comment 2U.

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impacts have been mitigated to less than significant. As a result, CEQA requires that prior to project approval, the lead agency must consider a reasonable range of alternatives to lessen or avoid the significant environmental impacts. (See *Laurel Heights Improvement Ass'n v. Regents of Univ. of Cal., supra*, 47 Cal 3d at 403.) CEQA requires that the EIR describe a reasonable range of alternatives to the project, or to the location of the project. (CEQA Guidelines, § 15126(d); see *Citizens of Goleta Valley v. Board of Supervisors, supra*, 52 Cal 3d at 566.)

The CPUC should consider alternatives to the pipeline route as well as the locations to the Well Pad Site and Remote Facility Site that reduce the significant environmental impacts. Also, an EIR should consider alternatives that require the installation of a single pipeline or pipeline route upon full development of the project. To this end, an EIR should consider connecting to PG&E's backbone gas transmission lines (see Neg. Dec. at p. 19), or through public property south of the property of Roseville Land. By connecting to PG&E's backbone gas transmission lines, Wild Goose may be able to avoid the necessity of an additional pipeline and thereby reduce significant environmental impacts. By proceeding with the Initial phase of the project utilizing the proposed pipeline route, the significant impacts of the project will be multiplied when additional pipelines are required for full development. (*Id.*)

P

E. Additional Comments on the Initial Study and Mitigated Negative Declaration

The Negative Declaration states that "[o]nce the right of way is cleared, *most* pipeline equipment and vehicles will use the right-of-way to travel along the pipeline." (Neg. Dec. at p. 11, emphasis added.) Since not all construction equipment and vehicles will use cleared right-of-way, the Negative Declaration should state what other methods or areas will be used to access the pipeline. If additional access roads must be built, then the Initial Study and Negative Declaration must address the impacts associated with any such access roads.

Q

Projects which encourage activities that result in the use of large amounts of fuel, water, or energy will normally have a significant effect on the environment. (CEQA Guidelines, Appendix G, subdivision (n).) The proposed gas storage project will encourage such activities. The very purpose of the project is to make natural gas more readily available during periods of high demand, thus facilitating the use of large amounts of energy. (See Neg. Dec. at p. 1.) The Initial Study and Negative Declaration must address the significant impacts associated with a project that will result in the use of large amounts of energy.

R

Mitigation Measure WA5 requires Wild Goose to analyze samples of the hydrostatic test water prior to discharge into the drainage canals to verify that it meets the water quality standards established by the Regional Water Quality Control Board (RWQCB). (Initial Study at p. 32.) The mitigation measure, however, fails to state what action must be taken if the water samples indicate that the hydrostatic test water does not meet the established standards. The mitigation measure must address what action Wild Goose must take in the event the hydrostatic test water does not meet established water quality standards. Additionally, the mitigation measures should require a specific sampling methodology. Is the required sampling to be done according to RWQCB methods or is the project operator allowed to select its own sampling method? The mitigation measure must also prohibit the discharge of any such water if it does not meet the water quality standards. Without these additional mitigation requirements, there can be no assurance that Mitigation Measure WA5 reduces the significant impact resulting from the discharge of hydrostatic test water into the drainage canals.

S

None of the proposed mitigation measures require inspection of the temporary rice checks (dams) before their removal after construction. Giant garter snakes, as well as turtles,

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The proponent prepared a detailed alternatives analysis in Section 17 of the PEA, including alternative sites for the Well Pad and Remote Facility. Alternative routes of the natural gas pipelines were also outlined and evaluated. The result of the alternatives analysis was that the proposed project sites and routes represent the best alternative for minimizing potential impacts to the environment and to sensitive receptors in the area of the project.

Under CEQA, alternatives are developed and analyzed that could avoid or lessen significant impacts. Where significant impacts are mitigated to a less than significant level, alternatives are not required. The project, as mitigated, will not result in significant environmental impacts. Therefore, a reasonable range of alternatives is not required.

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The Negative Declaration has been revised to reflect this comment. See Project Description, Construction Requirements.

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See response to comments 2AR and 3M.

R

The discharge of hydrostatic test water will be strictly monitored by the RWQCB, and if discharge of water occurs that does not meet the RWQCB standards, then the RWQCB requires shutting down the system until the problem has been resolved, and more frequent monitoring to verify compliance. The sampling methodology and analytical parameters will be set by the RWQCB, and will be standard methodologies appropriate to this type of discharge. This regulatory oversight will adequately mitigate the concern.

S may utilize the temporary checks for habitat, especially if the structures have been in place for at least six months. Therefore, the mitigated negative declaration fails to provide adequate protection to Giant garter snakes and Northwestern pond turtles after construction has been completed.

T Given the magnitude of the fully developed project, there is a potential increase in combustion products, such as air pollution from NOx, that is not discussed in either the PEA or the Initial Study. According to the PEA, any new emissions in Butte County greater than 50 pounds per day (ppd) NOx or ROG, 500 ppd CO, 80 ppd PM_{10} or SO_2, are subject to the New Source Review Rule, including requirements to apply Best Available Control Technology (BACT) to the emissions unit. (PEA at pp. 4-12 to 4-13.) The PEA then states that BACT is appropriate for the turbine-compressor unit, but not required for the reboiler or back-up generator. (PEA at p. 4-13.) The analysis contained in the PEA, however, applies only to the initial phase of the project. When the fully developed project comes online, there will be additional emissions of NOx that may require the use of BACT as a mitigation measure. By conducting environmental review in this piecemeal approach, Wild Goose is able to downplay the project's true environmental impacts and possibly avoid using BACT to reduce air emissions. The CPUC should require the air quality analysis to consider the fully developed project and not the incremental stages of project implementation as put forth by Wild Goose.

P. Conclusion

Based upon the foregoing comments, and the requirements of CEQA, the CPUC should reject the Mitigated Negative Declaration and prepare an EIR for the fully developed project which provides a discussion of project impacts, alternatives and mitigation measures.

Very truly yours,

Donald B. Mooney
Attorney

DEM:sb

S During spring field preparation, pipeline corridor strips in rice fields shall be dried out with temporary checks (dams) to prevent giant garter snakes from using them during construction. The checks will be removed before October 1 to prevent usage as winter hibernacula by the snakes. Mitigation Measure B-20 has been modified by adding "a qualified wildlife biologist with appropriate CDFG and USFWS scientific permits shall monitor the removal of the checks to ensure that no Northwestern pond turtles or Giant garter snakes are taken or trapped".

T Any additional sources of air emissions will be placed under the same scrutiny and will be evaluated through the same process as the sources outlined in the PEA, namely, through a very stringent permitting process, including BACT analysis. If the overall facility emissions exceed BACT thresholds or offset thresholds, then BCAQMD must require emission reductions at that time.

Correspondence No. 4

State of California THE RESOURCES AGENCY

MEMORANDUM

To: Project Coordinator
Resources Agency

Date: May 1, 1997

Mr. Bruce Kaneshiro
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, California 94102-3298

From: Department of Conservation
Office of Governmental and Environmental Relations

Subject: Negative Declaration for the Wild Goose Gas Storage Project - SCH #97032090

The Department of Conservation's (Department) Division of Oil, Gas, and Geothermal Resources (Division) supervises the drilling, operation, maintenance and abandonment of oil, gas, and geothermal wells in the state. The Department has reviewed the Negative Declaration for the proposed project and submits the following comments for your consideration.

A Page 9, 2nd paragraph - It is stated that produced waste water will be trucked by a hauler licensed by the Division of Oil, Gas, and Geothermal Resources who would dispose of the water at an approved injection well. To clarify, the Division issues permits for injection wells. However, Division authority does not extend to haulers of the water. The appropriate licensing authority for the hauler would be the California Highway Patrol.

B Page 6, 2nd paragraph - The last sentence of the paragraph states, in part, that the disposal well will be drilled considerably below the local groundwater table. The Department suggests that it would be more accurate to state that the disposal well will be drilled considerably below the base of fresh water. Division approval of an injection well will include a condition that the produced water must not be injected into an aquifer containing fewer than 10,000 mg/L total dissolve solids. The Department notes that Mitigation Measures WA3 and WA5 adequately address this issue.

The Department appreciates the opportunity to comment on the Negative Declaration. If you have any questions, please contact Bob Reid at the Division district office in Sacramento. The address is 801 K Street, 20th Floor, MS 20-22, Sacramento, CA 95814-3530; phone (916) 322-1110. If I can be of further assistance, contact me at (916 445-8733.

Jason Marshall
Assistant Director

cc: Bob Reid, Division of Oil, Gas, and Geothermal Resources, Sacramento
Mike Stettner, Division of Oil, Gas, and Geothermal Resources, Sacramento

A The Negative Declaration has been revised to reflect this comment. See Project Description, Field Operations.

B The Negative Declaration has been revised to reflect this comment. See Project Description, Field Operations.

Correspondence No. 5

BUTTE COUNTY
AIR QUALITY MANAGEMENT DISTRICT

April 17, 1997

Bruce Kaneshiro, Project Manager
Energy Division
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102-3928

Dear Mr. Kaneshiro:

The District has reviewed the negative declaration for the Wild Goose Gas Storage Project and submits the following comments

A 1. Table 2 - Mitigation Monitoring Procedure for Air Quality, Mitigation A-8, A-9, A-10 and A-11 discuss mitigations to minimize emissions from workers' vehicles and construction equipment. The District recommends implementing these mitigations, however, these same mitigations are not listed or discussed in the Initial Study Air Quality Section. Will these mitigations be applied to the proposed project?

B 2. The potential air quality impacts associated with the proposed project can be minimized by incorporating *all* the mitigation measures as listed in Table 2 - Air Quality Section.

The District appreciates the opportunity to comment on the Public Utilities Commission project reviews. If you have any questions, please contact me at 891-2882.

Sincerely,

Gail Williams
Air Quality Planner

A These measures have been added to the Initial Study for completeness.

B We concur with this comment.

Correspondence No. 6

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Application of WILD GOOSE STORAGE INC. for a Certificate of Public Convenience and Necessity to construct Facilities for Gas Storage Operations	)	A.96-08 058

COMMENTS OF
WILD GOOSE STORAGE INC.
ON PROPOSED NEGATIVE DECLARATION

In accord with the procedures set forth in the March 28, 1997 Notice of Publication, Wild Goose Storage Inc. ("WGSI") submits the following comments on the Negative Declaration issued by the Commission with respect to the Wild Goose Storage Project. The Commission's preparation of the Negative Declaration and the accompanying Initial Study analyzing the project and its potential environmental effect has enabled the Commission to determine "that the proposed project will not have any significant effects on the environment with the implementation of identified mitigation measures." WGSI applauds the Commission's findings. WGSI has dedicated significant resources towards the assurance that the project will not impact the environment in any significant manner. Where necessary, mitigation plans have been formulated and will be implemented.

Given WGSI's concurrence with the proposed Negative Declaration, its comments are narrowly focused, and address only minor word changes necessary to convey the true intent of the finding. In this regard, WGSI submits that the following changes should be made to the Negative Declaration:

A

First, on page 7, the last sentence of the fifth full paragraph should be modified

Correspondence No. 6 (Continued)

A to read "The upland areas are intended to be converted to wetlands to offset wetlands loss at the Well Pad Site." This word change denotes the fact that WGSI will actively undertake to convert a specified quantity of land into wetlands.

B Second, on page 10, the last line of paragraph 5 should be modified to read "The glycol supply tanks will be located near the compressor building." This change merely corrects an erroneous omission of the last portion of the sentence.

C Third, on page 9 of Table 2, with respect to Mitigation Measure BR 1a, WGSI has repeatedly maintained that the language requiring that "[i]ndividual plants and clusters identified during the survey shall be clearly marked and protected during construction" is overly broad. Given the great abundance of hibiscus in the area, the required protection of each and every one would be prohibitive. Thus, WGSI submits that this language should be modified such that the hibiscus would be "protected during construction where possible."

D Fourth, on page 18 of Table 2, the last sentence of Mitigation Measure 1a should read, "During normal operations, the Remote Facility Site will be monitored by gas, fire, and vibration sensors which will automatically shut down the facility if unusual conditions are detected." This change is necessary to correct an erroneous omission of the last part of the sentence.

E Fifth, on page 25, the only full paragraph, the language should be modified in order to make clear that there are only three residences within one-half mile of the proposed project facilities. The stated ten residences are within one-half mile of the proposed and alternative project facilities.

F Sixth, the response to the first question on page 63 implies that a paleontological field technician will monitor construction. WGSI submits that because the area has very low

A The negative Declaration has been revised to reflect this comment. See page 7.

B The Negative Declaration has been revised to reflect this comment. See page 10.

C Mitigation Measure BR 1a has been revised to reflect more specifically from informal consultation with CDFG.

D Table 2 has been revised to reflect this comment. See Table 2, page 18.

E The Initial Study has been revised to reflect this comment. See page 25.

F The Initial Study has been revised to reflect this comment. See Section XIV(a).

F

sensitivity for significant paleontological resources, construction monitoring does not seem warranted, nor was it WGSI's intent to have such a monitor present at the construction site. Rather, paleontological resources should be treated similar to cultural resources, requiring a field technician to be present only if and when a resource is discovered during excavation. Accordingly, the second sentence of the response should be modified to read that "Should paleontological resources be discovered during project excavations, work will be stopped in the immediate area and a qualified paleontologist will be called to determine the appropriate treatment."

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G

Finally, WGSI questions the discussion pertaining to the potential expansion of the Project on page 22 of the Negative Declaration. The Negative Declaration acknowledges that WGSI has no reasonably foreseeable plans to extend the project. (ND at 19). The Declaration notes, however, that based on the results of the Initial Study, "there is a reasonably foreseeable potential for significant impacts associated with the full development of WGSI's storage capacity." (ND at 22). Given this potential, the following conclusion was reached:

> [I]f WGSI seeks to expand its physical facilities beyond the scope of the present project, it shall file a Petition to Modify Its CPCN, so that the Commission may ensure that the appropriate environmental analysis of the impacts of WGSI's specific proposal may be performed.

WGSI questions whether reopening its certificate proceeding upon any expansion of the physical facilities is necessary to ensure appropriate environmental compliance. Moreover, WGSI questions the intended breadth of any such reopening -- i.e., would the proceeding to modify the WGSI certificate be confined solely to environmental issues? In this regard, WGSI notes that the incumbent gas distribution utilities are not required to seek a modification of their CPCN when expanding natural gas facilities. Indeed, within the last decade SoCalGas has expanded

G

its natural gas storage capacity and constructed new transmission facilities to increase the takeaway capacity of its interconnect with El Paso Natural Gas Co. These projects are clearly system expansions, yet do not require a certificate modification under Section 1001 of the Public Utility Code. WGSI seeks the establishment of regulatory procedures for independent gas storage providers which are no more or less onerous than those imposed on the incumbent utilities.

WGSI has drafted language which would clarify its responsibilities with regard to a various degrees of expansion while ensuring that the appropriate regulatory and environmental review would take place. This proposed modification would replace the last sentence of the first full paragraph on page 22 of the Negative Declaration:

> If WGSI seeks to expand its facilities into jurisdictional wetlands which lie beyond the physical boundaries of the project as described in the PEA, it shall: (1) notify the Commission by letter, including within such notice a full description of the scope of the planned expansion; (2) consult with the Energy Division regarding the appropriate scope of environmental review to be performed; and (3) make any filings required by the Director of the Energy Division. The Commission reserves the right to require that, in the circumstances described above, WGSI file an application to amend its CPCN, however, WGSI's CPCN shall not be reopened for the purpose of addressing non-environmental issues. With regard to enhancements or expansions of WGSI's facilities within the physical boundaries of the existing project as described in the PEA, or to expand into lands which are not jurisdictional wetlands, then WGSI will be subject to the applicable permitting and environmental requirements of local, state and federal law, and no application seeking amendment of its CPCN will be required.

This language assures that the Commission maintains its authority with respect to environmental compliance for all project expansions within its jurisdiction.

G

G See the Environmental Determination at the conclusion of the Negative Declaration for a modification of the sentence quoted here by the Applicant. The alternate language drafted by the Applicant in this comment was not found to be acceptable.

Wherefore, for the reasons stated above, WGSI respectfully requests that the Negative Declaration be modified as provided for herein.

Respectfully submitted,

WRIGHT & TALISMAN

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Attorneys for
Wild Goose Storage Inc.

April 29, 1997

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ATTACHMENT B

Wild Goose Gas Storage Project
Proposed Decision Comment Log

Commenter	Correspondence Number	Number of Comments
INDIVIDUALS, ORGANIZATIONS, & BUSINESSES		
Mid-Valley Building and Construction Trades Council, the Plumbers and Pipefitters Union, Local 228, and the Plumbers and Steamfitters Union, Local 342	2	4
STATE AGENCIES		
None	-	-
LOCAL AGENCIES		
None	-	-
PROJECT APPLICANT		
Wild Goose Gas Storage, Inc.	1	6

Selected Section III, "Comments on Environmental Issues"
from *Comments of Wild Goose Storage, Inc., on Proposed Decision*

Correspondence No. 1, Attachment B

III.

COMMENTS ON ENVIRONMENTAL ISSUES

A. The Negative Declaration Adopted By The PD Correctly Concludes That All Project Impacts On The Environment Can Be Mitigated To A Level Of Insignificance.

WGSI has carefully reviewed the PD and the attached Negative Declaration upon which the certificate is based, and WGSI strongly supports the Negative Declaration adopted by the PD, particularly its conclusion that any potential project impacts can be mitigated to a level of insignificance by means of the mitigation measures set forth in the Negative Declaration and its attachments. WGSI also concurs in the Negative Declaration's point by point rebuttal to the comments raised by the Roseville Land Development Association (Roseville) and other parties in connection with the Negative Declaration. All reasonable comments have been accommodated by changes in the Negative Declaration, and all other comments, particularly those of Roseville, which are designed to delay the issuance of a certificate to WGSI, have been effectively negated by careful explanation and citation to the Proponent's Environmental Assessment and the record.

B. The PD should Be Modified To Clarify Certain Mitigation Measures.

While WGSI supports the PD and the Negative Declaration, as described above, there are a limited number of minor changes in the mitigation measures which will enhance the effectiveness of the adopted Mitigation and Monitoring Plan (MMP). WGSI offers these proposed modifications to the MMP and the PD as part of the effort it has undertaken since the inception of this project to demonstrate great sensitivity toward environmental issues, and to do

//

A Comment noted.

everything in its power to construct and operate the WGSI storage project in an environmentally responsible manner.

These modifications to the MMP are, for the most part, merely restatements of the mitigation requirements, crafted to provide greater clarity as to WGSI's obligations and responsibilities for mitigation measures. As each of these recommended changes clarifies, enhances or reinforces WGSI's obligation to prevent significant impacts on the environment, WGSI asks the Commission to adopt each and every one of these proposed modifications.

B

(1) Noise

WGSI, in conjunction with the Mid-Valley Building and Construction Trades Council, Plumbers and Pipefitters Union, Local 228, and Plumbers and Steamfitters Union, Local 342 (hereinafter "the Unions"), recommends that the first sentence of Mitigation Measure NO 1a in the Negative Declaration be revised to state as follows:

> "Release valves and blowdown at the Remote Facility Site will be routed to the relief vent at the facility, which will be designed to produce a maximum of 75 dBA at the property line at any point in time during a blowdown event."

This change will clarify that the noise standard applies continuously and is not an average daily standard.

C

(2) Sensitive Species

Again in conjunction with the Unions, WGSI also recommends that the following mitigation measure be added to the Negative Declaration.

> "The Biological Resources Mitigation and Monitoring Plan ('BRMMP') shall be submitted to the California Department of Fish and Game ('CDFG') for review and approval as part of the Section 2091 consultation process. If CDFG finds that additional or modified mitigation measures are necessary to mitigate species

B The Initial Study has been revised to reflect this comment. See revised Section 10, Mitigation Measure NO 1a. The revision reflects information provided in the discussion on noise in the Initial Study, and in the August 1996 Proponent's Environmental Assessment, Section 11, Noise.

C The Negative Declaration and the Initial Study contain various references to the need for completion of endangered species consultation with the California Department of Fish and Game ("2090 consultation") and compliance with those permit requirements. For added clarity, a statement has been added to Permit Requirements, page ND-19, that anticipates additional or modified mitigation measures by responsible agencies.

C

impacts to insignificance, all such mitigation measures shall be implemented and complied with by Wild Goose."

This mitigation measure will ensure that any additional requirements found necessary by CDFG will be incorporated into WGSI's MMP.

(3) Plant Species

In order to clarify the procedures to protect sensitive plant species at the project site, WGSI and the Unions recommend the following language to modify Mitigation Measure BR 1a. WGSI believes this alternate language is consistent with the intent of the language proposed by Energy Division, but provides additional detail to rank the alternative techniques to be used to reestablish certain plant species in the vicinity of the WGSI site.

D

"Before start of the project construction in appropriate habitat areas, a floristically-timed survey for the presence of California hibiscus within the project impact zone shall be conducted by a qualified botanist. See Table 4 of BRMMP, page 23, for locations to be surveyed and preconstruction survey schedule. Individual plants and clusters identified during the survey shall be clearly marked and protected during construction. Where individual plants cannot be feasibly avoided, the plants, and/or seeds (along with a sufficient amount of topsoil to ensure successful revegetation) shall be reserved and re-planted in the same location after construction is completed. If it is not feasible to re-plant in the same location, the plants and/or seeds shall be transplanted to a nearby location(s) with suitable habitat. If it is not possible to salvage plant material from the plants to be removed, then plant materials for revegetation shall be collected from the nearest possible location to the impacted areas. The project shall not result in a net loss of California hibiscus plants nor acreage covered by the plants."

E

(4) Hazards

The PD has modified mitigation measure HA 1a from the version originally included in the Negative Declaration to include a requirement for the WGSI Fire

D The Initial Study has been revised to reflect this comment, with modification to protect surrounding plant communities from significant damage due to harvest of plant material. See revised Section VII, Mitigation Measure BR 1a.

E The Initial Study has been revised to reflect this comment. See revised Section IX, Mitigation Measure HA 1a. WGSI has indicated that the Fire Protection Plan was submitted to the Butte County Fire Department on May 26, 1997.

Prevention Plan to cover operations, and this has lead to confusion about the roles of the various emergency preparedness plans. WGSI intended the Fire Protection Plan to minimize fire potential during construction, and for the DOT and CPUC-approved Emergency Response Plan to perform the same function after operations commence. WGSI recommends that the following language be adopted as a minor modification of mitigation measure HA 1a to clarify which plans apply during which phase of the project.

> "The Applicant will incorporate into the construction bid requirements for compliance with local and state fire prevention regulations. The Fire Prevention Plan will include preventative measures, training, and fire control and suppression equipment. Additional details of the Fire Prevention Plan are provided in Section 12.6 of the PEA. The Fire Prevention Plan must be reviewed and approved by local and state fire officials. Acceptance of the Fire Prevention Plan by local and state fire officials is considered to be adequate to demonstrate that construction impacts have been mitigated to insignificance.
>
> "The Applicant will prepare and implement an Operating and Maintenance Plan, a Damage Prevention Plan, and an Emergency Response Plan, as required by the federal Department of Transportation (DOT) and the CPUC General Order 112-E (Section 192. 615) prior to operations of the project. The facility will not be allowed to operate unless the Emergency Response Plan is deemed acceptable and complete by local and state fire officials. Acceptance of the Emergency Response Plan by local and state fire officials is considered adequate to demonstrate that operational impacts have been mitigated to insignificance. Extensive fire detection equipment will be installed at both the Well Pad Site and the Remote Facility Site. The fire control technology used at intrastate and interstate natural gas compressor stations, which operate continuously at high pressures, will be used at the facility. The project will utilize proven industry technology for monitoring the safety of these high pressure systems, and for dealing with worst-case contingencies as they occur. During normal operations, the Remote Facility Site will be monitored by gas, fire, and vibration sensors which will automatically shut down the facility if unusual conditions are detected."

E

In order to prevent confusion about which plan should apply during construction, and to avoid the possibility that the minor modification of mitigation measure HA 1a would require a delay in the project in order to get complete sign-off on operational procedures prior to the commencement of construction, WGSI strongly urges the Commission to adopt the revised mitigation measure HA 1a set forth above.

F

(5) Environmental Review of Future WGSI Expansion

Finally, WGSI, in conjunction with the Unions, proposes that certain specific language contained in the Negative Declaration at page ND-21 be included in an Ordering Paragraph of the Decision in this case, to clarify WGSI's obligation to consult with the Commission in the event that an expansion of the WGSI project is contemplated. Such a consultation is the most appropriate way to ensure that the correct type of environmental review is performed and should be a specific requirement of the Commission's Order, rather than merely part of the text of the Negative Declaration. WGSI recommends the inclusion of the following additional Ordering Paragraph, which is taken directly from the Negative Declaration.

> "If Wild Goose seeks to expand or modify its physical facilities to the extent that discretionary approval by a public agency is required, it shall consult with the Commission, so that the Commission may ensure that the appropriate environmental analysis of the impacts of Wild Goose' specific proposal may be performed."

It is important for the Commission to carefully consider and adopt the changes to the Negative Declaration and Order listed above. Adoption of these recommended changes will both clarify the environmental standards applicable to the project and reduce the number of parties in opposition to the issuance of WGSI's Certificate. See the comments on the proposed decision filed by the Unions.

F This will be addressed in the Commission Decision.

Correspondence No. 2, Attachment B

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Application of WILD GOOSE STORAGE INC., for a Certificate Of Public Convenience and Necessity to Construct Facilities for Gas Storage Operations	)	A 95-08-038

COMMENTS OF MID-VALLEY BUILDING AND CONSTRUCTION TRADES COUNCIL, PLUMBERS AND PIPEFITTERS UNION, LOCAL 228, AND PLUMBERS AND STEAMFITTERS UNION, LOCAL 342 ON THE ADMINISTRATIVE LAW JUDGE'S PROPOSED DECISION

I. INTRODUCTION

Pursuant to Commission Rule 77.2, the Mid-Valley Building and Construction Trades Council, the Plumbers and Pipefitters Union, Local 228, and the Plumbers and Steamfitters Union, Local 342 (collectively, "Unions") offer the following comments on the Proposed Decision of Administrative Law Judge Garde.

II. COMMENTS

Ordering paragraph 8 of the Proposed Decision requires Wild Goose Storage Inc. to comply with the mitigation measures outlined in the Negative Declaration. However, several of those mitigation measures require clarification. In addition, the Proposed Decision failed to incorporate a critical provision of the Negative Declaration in the Ordering paragraphs. We have discussed these clarifications with Wild Goose. Wild Goose will also request that the Proposed Decision and accompanying Negative Declaration be clarified as we describe in these comments. If these corrections are made, the Unions will have no opposition to the Commission issuing the Certificate of Public Convenience and Necessity.

A Negative Declaration

1. The first sentence of Mitigation Measure NO 1a in the Negative Declaration should be revised to state as follows [1]

> "Release valves and blowdown at the Remote Facility Site will be routed to the relief vent at the facility, which will be designed to produce a maximum of 75 dBA at the property line at any point in time during a blowdown event . . ."

The remainder of this mitigation measure should be left intact.

The purpose of this revision is to correct technical errors in mitigation measure NO 1a. Noise measurements require a reference point. Without the language "at the property line," the mitigation measure would be ambiguous as to where the noise measurement must be taken. Noise mitigation measures commonly specify the project's property line as the point of measurement.

Without the language "at any point in time during a blowdown event," the mitigation measure would be ambiguous as to the time period over which the noise may not exceed 75 dBA. For example, some noise measurements represent an average noise level over a period of time (*e.g.*, 1 hour, 24 hours). The proposed language clarifies that the noise from blowdowns and release valves at the Remote Facility Site cannot exceed 75 dBA at any point in time.

With this revision, the intent of Mitigation Measure NO 1a will be clearly stated.

2. The following mitigation measure should be added to the Negative Declaration:

> "The Biological Resources Mitigation and Monitoring Plan ("BRMMP") shall be submitted to the California Department of Fish and Game ("CDFG") for review and approval as part of the Section 2091 consultation process. If CDFG finds that additional or modified

[1] Additions and deletions are shown in underline and strikeout format.

A See response to Correspondence No. 1, Attachment B, Comment B.

B See response to Correspondence No. 1, Attachment B, Comment C.

mitigation measures are necessary to mitigate species impacts to insignificance, all such mitigation measures shall be implemented and complied with by Wild Goose."

B The purpose of this proposed mitigation measure is to state explicitly the role of the California Department of Fish and Game with regard to the Project's potential impacts to sensitive species. As recognized in the Negative Declaration (p. ND-19), CDFG is the agency charged with implementing the California Endangered Species Act, Fish & Game Code § 2050 *et seq*. The proposed mitigation measure makes explicit CDFG's role in ensuring that the requirements of the California Endangered Species Act are fulfilled and that any impacts to sensitive species are mitigated to insignificance.

3. Mitigation Measure BR 1a in the Negative Declaration should be revised as follows:

C "Before start of project construction in appropriate habitat areas, a floristically-timed survey for presence of California hibiscus within the project impact zone shall be conducted by a qualified botanist. See Table 4 of BRMMP, page 23, for locations to be surveyed and preconstruction survey schedule. Individual plants and clusters identified during the survey shall be clearly marked and protected during construction. Where individual plants and clusters cannot be feasibly avoided, ~~a tally shall be made of the total number destroyed by project construction. Hibiscus lasiocarpus shall then be included in the wetland revegetation plan for Goose Island, and/or any other appropriate wetland revegetation areas of the project. The hibiscus plantings may be by seed, transplant, or newly planted vegetation. Number of plantings shall be such that the number of new hibiscus plants or clumps remaining after monitoring for success must be at least equal to those removed by the project.~~ the plants and/or seeds (along with a sufficient amount of topsoil to ensure successful revegetation) shall be reserved and re-planted in the same location after construction is completed. If it is not feasible to re-plant in the same location, the plants and/or seeds shall be transplanted to a nearby location(s) with suitable habitat. If it is not possible to salvage plant material from the plants to be removed, then plant materials for revegetation shall be collected from the nearest possible location to the impacted areas. The project shall not result in a net loss of California hibiscus plants nor acreage covered by the plants."

C See response to Correspondence No. 1, Attachment B, Comment D.

C

The purpose of this revised language is to remedy technical errors in mitigation measure BR 1a and to clarify the hierarchical process for mitigating potential impacts to California hibiscus, a sensitive plant species. Existing Mitigation Measure BR 1a attempts to achieve this result, but does not clearly enumerate the hierarchy for mitigating these potential impacts. The proposed language clarifies that the first priority is to avoid destroying the plants. If this is not feasible, the next best alternative is to re-plant the original plants and/or seeds in their original location. If this is not feasible, the next alternative is to re-plant the original plants and/or seeds in other suitable, nearby locations.

With this revision, the process for implementing Mitigation Measure BR 1a will be clearly stated.

D

B. Final Commission Decision and Order

1. The Commission's Order should add the following as Ordering paragraph 10.

> 10. "If Wild Goose seeks to expand or modify its physical facilities to the extent that discretionary approval by a public agency is required, it shall consult with the Commission, so that the Commission may ensure that the appropriate environmental analysis of the impacts of Wild Goose's specific proposal may be performed."

The purpose of this proposed revision is to incorporate the directive in the Negative Declaration (p. ND-21) in an enforceable provision of the Commission's Ordering paragraphs.

D See response to Correspondence No. 1, Attachment B, Comment F.

III. CONCLUSION

If the foregoing corrections and clarifications are made, the Unions will have no opposition to the Commission issuing the Certificate of Public Convenience and Necessity for the Project, as provided in the Proposed Decision.

Respectfully submitted,

Lizanne Reynolds

Thomas R. Adams
Marc D. Joseph
Lizanne Reynolds

Attorneys for Mid-Valley Building and Construction Trades Council, Plumbers and Pipefitters Union, Local 228, and Plumbers And Steamfitters Union, Local 342

State of California

Public Utilities Commission
San Francisco

A.96-08-058
D.97-06-091

Commissioners Jessie J. Knight, Jr. and Josiah L. Neeper, Concurring in Part, Dissenting in Part:

Overall, we support today's decision granting a certificate of public convenience and necessity to Wild Goose Storage, Inc. for its proposed gas storage operations in Northern California. Since the advent of our 1993 decision to unbundle storage from utility operations, the Commission has advocated strong preferences and a desire to foster competition for gas storage services.

We dissent on the finding which places an inappropriate regulatory burden on the applicant that is unnecessary. The decision requires Wild Goose Storage Inc. to file cost data with the Commission to justify that its tariff rates do not fall below the company's short-run marginal cost. This requirement is rationalized in the decision with the logic that this provision will ensure that the applicant will not engage in predatory pricing practices that would allegedly serve to drive other competitors from the market. We strongly disagree with this requirement for such an unlikely circumstance.

First, it is highly unlikely that Wild Goose Storage Inc., as a new entrant, could have such a negative economic impact on the incumbent investor-owned utility that would result in the utility having to exit the gas storage market. Wild Goose is the first and so far, the only competitor to enter this market in California. The incumbent utility has 100% of the market, while Wild Goose Storage Inc. starts with a customer base of zero.

Second, even if Wild Goose Storage Inc. were to engage in predatory pricing, existing legal processes are in place for the Commission and the courts to eradicate this speculative problem. The Commission and the courts have appropriate legal mechanisms in place for any potential offended party that seeks regulatory or legal relief.

Third, the decision aptly notes that the applicant is entering the storage business at the complete risk of its shareholders. Therefore, we believe that it is improper for a regulatory agency to place such a high regulatory burden on a new entrant, given the fact that traditional ratepayers will not bear <u>any</u> portion of the risk for this investment.

Although we do not wish to delay the applicant's project any further by re-writing today's decision to remove this cost filing requirement, we invite the applicant to petition the Commission to remove this burden.

Dated June 25, 1997 in San Francisco, California.

Jessie J. Knight, Jr.
Commissioner

Josiah L. Neeper
Commissioner

I concur with the reasoning of Commissioners Knight and Neeper as expressed in their partial dissent.

Henry M. Duque
Commissioner

I concur with the reasoning of Commissioners Knight and Neeper as expressed in their partial dissent.

Richard A. Bilas
Commissioner

State of California

Public Utilities Commission
San Francisco

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D.97-06-091

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Second, even if Wild Goose Storage Inc. were to engage in predatory pricing, existing legal processes are in place for the Commission and the courts to eradicate this speculative problem. The Commission and the courts have appropriate legal mechanisms in place for any potential offended party that seeks regulatory or legal relief.

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I concur with the reasoning of Commissioners Knight and Neeper as expressed in their partial dissent.

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