

Conserving top soil and by using adapted native vegetation. The residual impact will not be significant.

[15] The soil conservation plan will identify how and when monitoring of disturbed areas will be conducted and will identify monitoring criteria.

- o Effectiveness: The measure will ensure effective monitoring of areas where revegetation will be difficult.

[16] Topsoil segregation from underlying soil materials and return of the topsoil to the surface of the trench area will be practiced during construction of the entire route. Exceptions based on specific, unusual, or prohibitive conditions will be identified in the soil conservation plan. The shallow layer of topsoil, which may be 10 inches or less for certain soils, and the presence of saline subsoils which can contaminate the topsoil require that the depth of topsoiling be specified in the soil conservation plan. The plan will define the depth of topsoiling to be conserved, taking into account the desirability of preserving root stock in areas covered by native vegetation.

- o Effectiveness: This measure will reduce or eliminate revegetation problems caused by changes in soil chemistry or characteristics by preventing mixing of soil materials. Topsoil conservation could reduce the requirement for purchasing seed or native planting material. No residual impact.

The applicant has, in a letter dated February 9, 1987, amended their application to incorporate these measures. Therefore, the project, as amended, will avoid or substantially lessen the significant adverse impacts to saline/alkali soils identified in the FEIR/EIS. The FEIR/EIR concludes that the residual impacts, after such mitigation, would be insignificant.

SURFACE WATER

IMPACT: Leaks and spills from construction equipment onto surface waters.

FINDING: 1) Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the final EIR.

FACTS SUPPORTING THE FINDING:

Leaks and spills of lubricating oil or equipment fuel during construction would be small, but could be significant if they reached surface waters, especially flowing streams. The FEIR/EIS contains mitigation measure 22 to eliminate this impact. Specifically, the FEIR/EIS states:

[22] Fueling and lubrication of construction equipment will occur away from aquatic habitats, at least one-eighth mile from Pacheco Creek, other flowing streams, canals, aqueducts, and riparian habitats. Any spills will be cleaned up.

o Effectiveness: This measure will prevent construction-related spills from impacting water resources. No residual impact.

The applicant, in their initial application incorporated this mitigation measure. Therefore, the project, as proposed, will avoid any significant adverse effects to surface water due to construction equipment refueling as identified in the FEIR/EIS. The FEIR/EIS concludes that the residual impacts, after such mitigation, would be insignificant.

SURFACE WATER

IMPACT: Accidents may cause oil spills which could reach surface waters.

- FINDING:
- 1) Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the final EIR.
 - 2) Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency (Department of Water Resources and Bureau of Reclamation).
 - 3) Specific economic, social, or other considerations make infeasible the mitigation measures or project alternatives identified in the final EIR.

FACTS SUPPORTING THE FINDING:

The maximum potential oil spill data indicate a wide range of spill volumes. Under the worst-case conditions, small drainages and water courses would be overwhelmed by these quantities of oil, and larger perennial streams and aqueducts would carry the oil many miles downstream. The most sensitive of the larger watercourses are the aqueducts which transport water to locations hundreds of miles away. Water from the California Aqueduct is treated prior to use for drinking water in the Central Valley. An oil spill reaching the aqueduct would adversely affect water treatment equipment, resulting in a significant adverse impact due to reduced drinking water supplies.

Water quality will be degraded by the more volatile fractions of the oil going into solution. Depending on the flow characteristics at the time of the spills, oil could be incorporated into the sediment of the stream bottom so that some oil would continue to be released after the surface spill was initially cleaned up. Duration of the water quality impacts would probably be only a few weeks after the oil was cleaned up, particularly for larger streams with a large enough flow to dilute any oil remaining. This would depend on the time of the year and the volume of flow in the intermediate drainages.

CALENDAR PAGE	70.40
MINUTE PAGE	369

The only sediment settling basin associated with the California Aqueduct that could be affected by the project is Arroyo Passajero. If an oil spill were to reach the basin, it might be contained on the surface long enough to be cleaned up. If not it could pass into the aqueduct and cause significant water quality degradation downstream. The likelihood of an oil spill occurring during a flood or sustained storm of sufficient magnitude to transport oil from the pipeline to the basin, a distance of 10 miles, is very small.

A catastrophic flood or release of water, such as could occur if the spillways on the O'Neill Forebay and San Luis Reservoir gave way, could uncover and wash out sections of pipeline, and thus cause an oil spill. This impact is significant but improbable.

The FEIR/EIS recommends measures 7, 70 and 102 to mitigate potential impacts to surface waters. Mitigation measure 7 was previously discussed (see geologic hazards) and recommended for inclusion as a condition of approval of the State Lands Commission lease. The inclusion of this measure could reduce the amount of oil spilled into Pacheco Creek by more than a factor of 3. Therefore, inclusion of this mitigation will substantially lessen the identified impact of such a spill on these surface waters (see Finding No. 1 above).

Similarly, the FEIR/EIS recommends measure 70 to mitigate impacts of a spill on the California Aqueduct and the Delta Mendota Canal. This measure requires placement of remotely operated block valves upstream and pressure sensitive check valves downstream at these locations (see Response 8-7 in the Finalizing Addendum). This would minimize shutoff time, thus substantially lessening the adverse impacts of such a spill. Specifically, the FEIR/EIS states:

[70] Automatic block valves will be installed at the above-ground crossings of the California Aqueduct at Milepost 160 and the Delta Mendota Canal at 164. The Oil Spill Contingency Plan will be updated to provide for containment equipment and personnel at strategic locations downstream. The equipment will include containment booms and sorbent materials.

- o Effectiveness: This measure will reduce oil spill impacts by minimizing shutoff and containment time, thus reducing impacts on wildlife and recreation at O'Neill Forebay and on downstream water supplies.

Mitigation measure 70 is not within the jurisdiction of the State Lands Commission. The letter submitted by the Department of Water Resources, dated November 19, 1986, indicates their intention to require shutoff valves at the aqueduct. They can and should require remotely operated valves as recommended in mitigation 70. The Delta-Mendota Canal is within the jurisdiction of the U.S. Bureau of Reclamation. In their letter of comment on the DEIR/EIS dated November 17, 1986, they made no comment about the Delta Mendota canal crossing. However, in communication with Bureau of Land Management, staff of the Bureau of Reclamation has indicated an intention to recommend such mitigation as a condition of approval. Since the San Joaquin Valley Pipeline will involve the Bureau of Reclamation's right-of-way and will require a permit, the Bureau can and should impose mitigation measure 70 as a condition of approval. Therefore, the State Lands Commission finds that these agencies have jurisdiction and can and should require mitigation 70 as a part of their approval of the project (see Finding #2 above).

Finally, the FEIR/EIS recommends that measure 102 be implemented. This would mitigate the effects of a spill by requiring an update of the Oil Spill Contingency Plan to include specific procedures and equipment to protect critical waterways. Specifically, the FEIR/EIS states:

[102] The Oil Spill Contingency Plan will be updated to include specific procedures and equipment to be used to prevent oil from entering the California Aqueduct or the San Joaquin River in the event of a major oil spill. Specifically, additions to the contingency plan will include methods for preventing oil from entering the California Aqueduct between Kettleman City and the O'Neill Forebay, a segment not protected by culverts or overchutes. In addition, the Oil Spill Contingency Plan will include site-specific detail of the cleanup methods and equipment; resources at risk; notification procedures; and personnel response items for each crossing of the California Aqueduct and for the crossings of the following streams:

<u>Stream</u>	<u>Milepost</u>
Los Gatos Creek -	79.3
Salt Creek	99.6
Panoche Creek	122.2
Little Panoche Creek	135.2
Ortigalita Creek	4 crossings
	- 146.9 - 148.3

CALENDAR PAGE	70.42
MINUTE PAGE	371

<u>Stream</u>	<u>Milepost</u>
Salt Creek	151.2
Garzas Creek	174.7
Orestimba Creek	179.4
Salado Creek	187.4
Del Puerto Creek	192.5
Corral Hollow Creek	210.3
Patterson Run	217.0

- o Effectiveness: This measure, combined with mitigation measure 79, will ensure that the Oil Spill Contingency Plan is as thorough as reasonably possible in limiting damage to sensitive resources from a major oil spill.

The applicant, in a letter to the State Lands Commission dated February 9, 1987, amended their application to incorporate this mitigation measure. Therefore, the project, as amended, will substantially lessen this significant adverse impact to surface waters as identified in the FEIR/EIS (see Finding #1 above).

The combination of mitigation measures outlined above constitute prudent and reasonable efforts to reduce the risk and consequences of an oil spill in surface waters. They will not, however, guarantee that such a spill will never happen. If a spill does occur, its effects would be significant. The 20" diameter pipe alternative would reduce spill size, but not to a level of insignificance. There are no alternatives which would eliminate these effects, except the no project alternative. Therefore, the Commission also makes the finding of overriding considerations (#3 above and Exhibit "E" following).

CALENDAR PAGE	<u>70.43</u>
MINUTE PAGE	<u>372</u>

GROUNDWATER

IMPACT: Withdrawal of hydrostatic test water from an overdrafted groundwater basin.

FINDING: 1) Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the final EIR.

FACTS SUPPORTING THE FINDING:

During construction, 63 acre-feet of water will be used to hydraulically test the integrity of the pipeline. This water will be provided by water districts; whether it will be supplied from surface or groundwater sources is presently unknown. It will be used repeatedly to test sections of the pipe until all of the line has been tested and the water is discharged. For comparison purposes, Kern County uses over 1 million acre-feet of water per year. Even in the western portion of Kern County along the proposed route, withdrawals of groundwater are 20,000 acre-feet per year. Thus, the planned 63 acre-feet withdrawal does not represent a significant impact on available groundwater supplies. However, the Kern County sub-basin is subject to overdraft. If the hydrostatic test water is withdrawn from this sub-basin, a significant impact would result if the basin is not recharged.

The applicant, in a letter to the State Lands Commission dated February 9, 1987, amended their application such that they commit to using no groundwater from an overdrafted sub-basin unless they are able to satisfy the affected water agency that no net water loss will result. This commits the applicant to finding water elsewhere, or arranging a satisfactory program of basin recharge. Therefore, as amended, the project will avoid the potential significant impact to an overdrafted groundwater identified in the FEIR/EIS and there will be no significant residual effects.

CALENDAR PAGE	70.44
MINUTE PAGE	373

NOISE

IMPACT: Noise impacts on sensitive receptors during construction.

- FINDING:
- 1) Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the final EIR.
 - 3) Specific economic, social, or other considerations make infeasible the mitigation measures or project alternatives identified in the final EIR.

FACTS SUPPORTING THE FINDING:

Most of the pipeline is located in sparsely populated areas where the noise from construction equipment will not have a significant impact. Areas of six counties, however, do contain sensitive receptors (homes, schools and recreation areas) which will experience significant noise impacts during the construction period (see Table 4-13, FEIR/EIS). Although this is a temporary impact, the FEIR/EIS recommends that it be mitigated with measure #31. This measure would prohibit weekend construction, the time when the most people are at home or using recreation facilities. Specifically, the FEIR/EIS states:

[31] There will be no weekend construction in sensitive residential and recreation areas.

- o Effectiveness: This measure avoids/mitigates impacts when most people are at home or using recreational facilities. Table 4-13, in Section 4.2.8, lists noise-sensitive areas for the project.

The applicant, in a letter to the State Lands Commission dated February 9, 1987, amended their application to incorporate this mitigation measure. Therefore, the project, as amended, will substantially lessen any significant adverse effects from noise as identified in the FEIR/EIS.

The FEIR/EIS concluded that the short-term, temporary residual noise impacts, after mitigation, will still be significant. There are no alternatives that will eliminate

CALENDAR PAGE	70.45
MINUTE PAGE	374.

these impacts except the no project alternative (see discussion of Alternatives at the end of this exhibit). Therefore, the Commission also adopts the finding of overriding considerations in Exhibit E.

CALENDAR PAGE	70.46
MINUTE PAGE	375

LAND USE AND RECREATION

IMPACT: Conflicts with adopted land use plans or future land use proposals.

FINDING: 1) Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the final EIR.

FACTS SUPPORTING THE FINDING:

The proposed pipeline is generally consistent with the planning objectives in the eight county areas. The fact that 228 miles (88%) of the proposed pipeline is aligned parallel and adjacent to existing rights-of-ways, as well as, the fact that it traverses largely rural land uses makes the project compatible with most adjacent land uses. Conflicts tend to occur with adjacent recreational facilities and with urban land uses where growth has resulted in development.

The DEIR/EIS identified potential land use conflicts in Contra Costa County with the proposed Stoneman Park reservoir and the Kirker Pass and central landfill proposals as significant impacts. Since publication of the draft EIR/EIS, minor realignments have been proposed by the applicant which resolve those conflicts (see responses #21-3 and #21-5 in the Finalizing Addendum). In addition, the FEIR/EIS identifies numerous proposed residential developments north of the alignment and proposed improvements to Highway 4 as other sources of conflict. The FEIR/EIS recommends mitigation measure 37 which involves coordination of construction schedules and minor adjustments of the final alignment during the local planning and permitting process. Specifically, the FEIR/EIS states:

[37] Potential land use conflicts, identified in Tables 4-15 and 4-16, will be resolved by fine-tuning of the final alignment in coordination with local planning agencies and regional authorities and State and Federal agencies, particularly in relation to BLM lands, Bureau of Reclamation lands, and Contra Costa County's Black Diamond Regional Preserve, landfill proposals, and residential development proposals (see Table 4-15 for complete listing).

- o Effectiveness: Significant land use impacts will be avoided by coordinated planning and fine-tuning of

CALENDAR PAGE	70.47
MINUTE PAGE	376

the final route alignment in these areas. The local land use planning process will resolve conflicts before issuing permits; hence, no residual impacts will remain when the permits are issued.

Potential land use conflicts with the proposed Coalinga Air Cargo Port in Fresno County were identified in the FEIR/EIS. The pipeline alignment does not cross this property, but borders it. If at some future date, expansion of this proposed facility were to be considered, the pipeline may present an impediment. As with Contra Costa County (above), the FEIR/EIS recommends measure 37 to mitigate this impact. In addition, in a letter to the State Lands Commission dated February 9, 1987, the applicant amended their application to incorporate this mitigation measure. Therefore, as amended, the project will avoid or substantially lessen the adverse impacts from conflicting land uses as identified in the FEIR/EIS. The FEIR/EIS concludes that there will be no significant residual impacts after such mitigation.

CALENDAR PAGE	70.48
MINUTE PAGE	377

LAND USE AND RECREATION

IMPACT: Conflicts with existing recreation areas.

FINDING: 1) Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the final EIR.

FACTS SUPPORTING THE FINDING:

The proposed pipeline will cross the western edge of the Bethany Reservoir State Recreation Area. Pipeline construction will require approximately 2 acres of land now used exclusively for recreation. Similarly, the proposed route traverses the Black Diamond Mines Regional Preserve for less than half-a-mile. This preserve is a 3,400 acre park with a well developed system of hiking trails. Construction of the pipeline will require approximately 3.6 acres of land. The FEIR/EIS found these impacts to be significant and recommended measure 37 to mitigate them. This measure (as fully described in the prior impact discussion) would involve coordination of construction schedules and minor adjustments the alignment during the local planning and permitting process. The applicant, in a letter to the State Lands Commission dated February 9, 1987, amended their application to incorporate this measure. Therefore, as amended, the project will substantially lessen the adverse impacts from conflicting land uses adjacent to recreational areas as identified in the FEIR/EIS. The FEIR/EIS concludes that there will be no significant residual impacts after such mitigation.

CALENDAR PAGE	70.49
MINUTE PAGE	378

VISUAL

IMPACTS: Visual contrast of right-of-way following construction.

FINDING: 1) Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the final EIR.

FACTS SUPPORTING THE FINDING:

The pipeline right-of-way mostly traverses rangelands, and the potential for significant impact exists for the short-term period during and shortly after construction. Pipeline construction involves considerable disruption of the vegetation cover and soil over an 80-foot-wide strip along the entire length of the right-of-way. The exposure of the bare soil, including temporary stockpiling of soil and equipment storage, create a strong contrast with the existing visual landscape along most of the route. Less visual contrast occurs where soil disturbance already exists because of agricultural activities, existing roads and powerline corridors, oil fields, and other activities. The construction of the pipeline will have the most visual contrast during and shortly after construction when soil and vegetation disturbances are greatest. These impacts are potentially significant only along parts of Segment 4 of the proposed alignment.

The FEIR/EIS recommends a number of measures to mitigate these impacts. These measures (11, 15, 40 and 41) involve: erosion control after site restoration; long-term monitoring of revegetation to assure success; use of grasses that are visually similar to adjacent ground cover; and, avoidance of large trees to the extent feasible. Specifically, the FEIR/EIS states:

[11] Temporary soil erosion controls will be implemented until revegetation measures are applied during the proper seasonal period.

The potential for water erosion is greatest from November through April. Although disturbed areas of the route will have little potential for erosion from late Spring to mid-fall, adequate measures for control of runoff should be in place before the Winter rains begin and prior to beginning revegetation. In many areas,

CALENDAR PAGE	70.50
MINUTE PAGE	379

successful revegetation will be contingent upon the adequacy of the erosion control measures implemented and these will be continued until success is assured.

The SCS has developed standards and specifications for temporary and permanent erosion/sedimentation control, specifically for those regions of California crossed by the pipeline. Temporary soil erosion control structures are designed to temporarily control runoff until disturbed areas have become stabilized. Various temporary structures, such as diversion dikes, interceptor dikes, perimeter dikes, straw bail dikes, interceptor swales, stone outlet structures, sediment basins, and sediment traps, are proven effective measures when correctly implemented and maintained. They will be implemented where and when necessary as indicated in the soil conservation plan.

Seeding of rangeland areas can only be successful in late fall to early winter; October and November are the optimal months.

- o Effectiveness: Revegetation success is enhanced by seeding during October and November, and by implementing soil erosion controls (temporary or permanent) in advance of winter rains and prior to revegetation.

[15] The soil conservation plan will identify how and when monitoring of disturbed areas will be conducted and will identify monitoring criteria.

- o Effectiveness: The measure will ensure effective monitoring of areas where revegetation will be difficult.

[40] All cleared areas of the pipeline right-of-way and building or microwave tower areas will be revegetated immediately after completion of construction according to a soil conservation plan (see mitigation measure [9]). Grasses that are similar to the adjacent vegetation cover will be used where possible to ensure that the created visual pathway will blend as much as possible into the surrounding landscape.

- o Effectiveness: The residual impact of the visual intrusion will be insignificant for the right-of-way.

[41] Oaks, cottonwoods, and other large trees will not be removed if this can be avoided by minor realignment.

CALENDAR PAGE	70.51
MINUTE PAGE	380

If trees must be removed, similar tree types will be planted in place, except on the 30-foot right-of-way, which will remain clear of woody growth for the life of the project. Minor deviations of the right-of-way will avoid large visually important trees, such as oaks, and tree clusters. The soil within the root zone of these trees will not be disturbed.

- o Effectiveness: Replanting with native oaks has not been very effective in the past in California. Thus, avoidance of oak trees is the most effective means of mitigation.

Implementation of these measures will help to minimize the length of time the visual impacts persist. The success of such efforts are evident where existing pipeline rights-of-way are well-revegetated and fully integrated visually into the surrounding landscape. The applicant, in a letter to the State Lands Commission dated February 9, 1987, amended their application to incorporate these measures. Therefore, the project as amended, will avoid or substantially lessen the adverse visual impacts of pipeline construction as identified in the FEIR/EIS. The FEIR/EIS concludes that there will be no significant residual impacts after such mitigation.

VISUAL

IMPACT: Visual contrast of ancillary facilities such as booster stations and microwave towers.

- FINDING:
- 1) Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the final EIR.
 - 2) Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency. (Counties of: Fresno, Merced, Stanislaus and San Joaquin).
 - 3) Specific economic, social, or other considerations make infeasible the mitigation measures or project alternatives identified in the final EIR.

FACTS SUPPORTING THE FINDING:

The construction of new towers, new booster stations, access roads, and power lines will result in visual contrasts. These ancillary facilities will have long-term impacts on the visual landscape. The impact depends on the type of feature and the nature of the surrounding visual landscape. These impacts are identified in Table 4-22 of the FEIR/EIS. Measure 39 is recommended as a supplement to the mitigations initially proposed by the applicant. This measure requires: 1) consideration of minor relocations of booster stations SJV-2b and SJV-3b; 2) use of the three station (SJV 2, 3 and 4) alternative since it would have somewhat less of a visual impact; or, 3) if those are infeasible, preparation of landscaping plans to screen SJV-2b and 3b. Specifically, the FEIR/EIS states:

[39] Siting requirements and visual impacts for booster station SJV-2b and microwave tower No. 8, and for booster station SJV-3b and microwave tower No. 11, will be carefully reviewed in relation to SJV-4, which has a better location in regard to visual resources. SJV-2b would be better sited near Little Panoche Road to place the station and microwave tower No. 8 in the background. SJV-3b and microwave tower No. 11 are located near the

CALENDAR PAGE	70.53
MINUTE PAGE	382

Westley Rest Stop Park, which is the most widely used rest stop in the region; consideration will be given to relocating SJU-3b and its microwave tower. SJU-4 has only a moderately significant impact. If relocation is not feasible, a site-specific landscaping plan will be prepared for SJU-2b and SJU-3b to provide screening and/or blend the stations with their surrounding.

- o Effectiveness: The residual impact will be reduced but will remain significant.

The applicant, in letter to the State Lands Commission dated February 9, 1987, amended their application to incorporate measure 39. Therefore, the project, as amended, will substantially lessen the visual impacts of the ancillary facilities as identified in the FEIR/EIS.

The FEIR/EIS concludes that, "construction and operation of booster stations SJU-2, SJU-3 and SJU-4 and associated microwave towers will have less impact on visual resources than booster station SJU-3b, which is part of the proposed action..." As noted above, consideration of the 3 station alternative is built into mitigation 39. The three station alternative is outside of the jurisdiction of the State Lands Commission. Thus, although the three station alternative is judged to be better than the proposed action it still results in significant impacts and either action (proposed or alternative) would result in significant residual impacts after mitigation. Responsible agencies: Fresno County (SJU-2b) and Stanislaus County (SJU-3b); and Fresno County (SJU-2), Merced County (SJU-3) and San Joaquin County (SJU-4) should take these factors into consideration during their permitting processes (see finding No. 2 above).

In any event, since significant residual impacts will result from any combination of alternatives (see discussion of Alternatives at the end of this exhibit) and mitigations except the no project alternative, the Commission also adopts the finding of overriding considerations in Exhibit E.

PALEONTOLOGY

IMPACT: Loss or disturbance of significant paleontological resources.

FINDING: 1) Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the final EIR.

FACTS SUPPORTING THE FINDING:

In areas of known paleontological resources within the right-of-way and on sites designated for ancillary facilities, trenching or grading during construction may result in direct destruction of most fossils within the excavated portion and may result in the loss of geologic context, which is used to determine the age and significance of the resource. Vehicle traffic may have similar effects on near-surface resources. Construction of buildings, paving, and backfilling may prevent future access and scientific investigation. Indirect impacts of unauthorized collecting of vertebrate fossils could occur or be increased by drawing attention to the presence and location of vertebrate fossils.

The proposed route crosses or comes very close to approximately 10 recorded fossil-producing localities. Nearly 100 vertebrate localities are recorded within 1 mile of the proposed route. Project impacts on known localities vary from significant to inconsequential. In most cases, impacts are expected to be insignificant. For the remaining cases, the FEIR/EIS recommended measures 44 and 45 to supplement those proposed by the applicant in the initial application. These measures would mitigate impacts by requiring: monitoring of sensitive locations during trenching; and, requiring resource locations be kept confidential to prevent unauthorized collection. Specifically, the FEIR/EIS states:

[44] Direct construction impacts to paleontological resources will be mitigated by the following procedures:

- a) Monitoring of ditching within areas assessed to have high or very high paleontologic impact significance as shown on Table 4-23 will be done by an approved vertebrate paleontologist.
- b) Any vertebrate fossils discovered during project construction, by personnel involved in construction

CALENDAR PAGE	70.55
MINUTE PAGE	384

or other project activities, within unmonitored areas, will be reported immediately to the approved paleontologist for assessment of value and recommended mitigation.

- c) The approved paleontologist will be empowered to halt temporarily or redirect project construction in the event that (1) unforeseen concentrations of vertebrate fossils assessed to have unusually high importance (as judged by the criteria in Appendix F) are revealed; and (2) such interruption will avoid further damage to the specimens. Sufficient time will be allowed for consultation with the authorizing agencies regarding mitigation.
- o Effectiveness: These measures will minimize loss of the scientific value of paleontological resources and improve knowledge of their distribution.

[45] Indirect impacts due to unauthorized collection will be minimized by imposing confidentiality regarding the existence or location of fossil localities.

- o Effectiveness: This measure will reduce the potential for irretrievable losses in case significant paleontological resources are identified.

The applicant, in a letter to the State Lands Commission dated February 9, 1987, amended their application to incorporate these measures. Therefore, the project, as amended, will avoid or substantially lessen the impacts to paleontological resources identified in the FEIR/EIS. The FEIR/EIS concludes that there will be no significant residual impacts after such mitigation.

CULTURAL RESOURCES

IMPACT: Loss or disturbance of sites eligible for the National Register of Historic Places (NRHP).

FINDING: 1) Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the final EIR.

FACTS SUPPORTING THE FINDING:

Cultural resources that could be impacted by the proposed project include archaeological and historic sites that are located in areas which would be directly (pipeline right-of-way) or indirectly affected by project construction and facilities operation.

A field survey was conducted to identify any potential cultural resource sites. Initial results indicate little potential for disturbance of significant cultural resources (maximum of 3 sites). However, the results of this effort have not been fully evaluated by appropriate agencies. Pending the conclusions of that review and possible unexpected discovery of resources the FEIR/EIS recommended mitigation measures 48 and 49. These measures will assure that construction activities proceed in full consideration of potential impacts to cultural resources by assuring compliance with the National Historic Preservation Act and making provisions for unexpected discoveries. Specifically, the FEIR/EIS states:

[48] Sufficient information was obtained at the time of survey to determine whether sites are potentially eligible for inclusion on the NRHP. Criteria for determining NRHP eligibility are found in 36 CFR 60.4. Limited testing of subsurface deposits may be needed for the single site identified during the field identification program. The report documenting results of the field identification program and evaluating significance has not been reviewed and accepted by the appropriate agencies. For this reason, it is premature to identify specific mitigation measures that will be applied to the identified cultural resources. However, the Memorandum of Agreement requires adequate treatment of sites evaluated to be significant (i.e., eligible for listing on the NRHP), and provides a process to accomplish this.

- o Effectiveness: These actions, under Section 106 of the National Historic Preservation Act, will ensure that the effects of pipeline construction and operation on cultural resources are fully considered, as required by law.

[49] If previously undiscovered cultural resources are uncovered during construction, work will stop and a competent archaeologist will be called in to evaluate the site.

- o Effectiveness: This measure will reduce impacts in areas of low sensitivity (such as agricultural fields) which will not be surveyed in detail.

The applicant, in a letter to the State Lands Commission dated February 9, 1987, amended their application to incorporate these measures. Therefore, the project, as amended will avoid or substantially lessen impacts to cultural resources as identified in the FEIR/EIS. The FEIR/EIS concludes that there will be no significant residual impacts after such mitigation.

CALENDAR PAGE	70.58
MINUTE PAGE	387

TERRESTRIAL AND AQUATIC BIOLOGY

IMPACT: Loss or disturbance of biological communities of concern due to construction.

FINDING: 1) Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the final EIR.

FACTS SUPPORTING THE FINDING:

Clearing and grading of the right-of-way will cause short-term and long-term loss and disturbance to existing natural communities. The FEIR/EIS found construction could result in significant adverse impacts to four biological communities of concern: vernal pools; riparian corridors; wetlands; and, oak savannah. In addition, significant impacts were also found in areas of alkali sink and saltbush scrub due to the slow process of revegetation by woody species caused by climatic and soil conditions. In general, direct impacts to wildlife were found to be insignificant because many animal species would be expected to quickly repopulate the construction corridor following restoration. To facilitate the recovery process the FEIR/EIS recommends measures 56, 57 and 58 to supplement those initially proposed by the applicant. These measures would mitigate impacts related to: vehicular use of the right-of-way; unauthorized collection of plants and animals; avoiding raptor nests; and special revegetation/construction techniques for areas of native vegetation. Specifically, the FEIR/EIS states:

[56] Unauthorized vehicle operation on the right-of-way will be prohibited by appropriate signs and gates. Authorized use will be subject to a low speed limit (15 mph). Illegal plant and animal collections will not be permitted as enforced by current laws and appropriate signs.

o Effectiveness: These measures will reduce the chance of significant impacts (incidental mortality) on rare or relatively rare species.

[57] No construction will occur within one-half mile of an active raptor nest during nesting seasons and no nests will be disturbed. Construction may proceed near inactive nests (see [52 f] above).

- o Effectiveness: This measure will ensure that nesting birds of prey and/or their nesting sites are not disturbed. The residual impact on raptors is not significant.

[58] The site-specific soil conservation plan (see mitigation measure [9]) will specify special revegetation measures for areas covered by native vegetation (see Table 3-30), such as alkali sink and saltbush scrub, using such techniques as preserving root stock and propagation with native plant materials. Rangelands will be revegetated with approved grass mixtures. The plan will identify the depth of topsoil to be segregated and replaced during trenching in order to enhance revegetation success in these areas, particularly in the area over the pipeline.

During construction in alkali scrub areas, right-of-way clearing will be limited to trimming and crushing whenever possible. The right-of-way will be located adjacent to existing disturbed areas (e.g., roads) where possible. These measures will reduce the amount of vegetation removed as well as reduce erosion potential, and will enhance recovery by not disturbing root systems.

- o Effectiveness: This measure will reduce impacts associated with the temporary loss of habitat to an insignificant level in grassland areas. Alkali scrub will resprout after construction and expedite habitat recovery on the right-of-way, thus reducing temporary loss of habitat to an insignificant level. Where oak trees are removed, revegetation will not fully restore habitat to preconstruction conditions. This represents a significant impact. Cattle would need to be excluded from grazing the seedlings. Avoidance of the trees is the most appropriate mitigation measure.

The applicant, in a letter to the State Lands Commission dated February 9, 1987, amended their application to incorporate these measures. Therefore, the project, as amended will avoid or substantially lessen the impacts on general communities and wildlife as identified in the FEIR/EIS. The FEIR/EIS concludes that there would be no significant residual impacts to biological communities of concern after such mitigation.

TERRESTRIAL AND AQUATIC BIOLOGY

IMPACT: Disturbance of special status plant and animal species caused by construction.

FINDING: 1) Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the final EIR.

FACTS SUPPORTING THE FINDING:

Construction activities could cause direct or indirect mortality or a loss of habitat for a variety of plant and animal species considered to be rare, threatened, endangered or otherwise requiring extremely careful treatment due to their sensitivity and/or critically small populations. The pipeline and the ancillary facility sites were extensively surveyed to determine the presence or potential presence of such special status plants or animals. (Note: the field survey for plants will be supplemented with a spring survey to comprehensively ascertain impacts to some plants.) Pipeline construction could result in significant impacts or potentially significant impacts to special status species including the: giant fiddleneck, Crampton's tuctoria, the delta coyote thistle, furcate fiddleneck; California jewel flower; Congdon's eatonella; Kern mallow; Hoover's wooly star; bearded allocarya; caper-fruited tropiocarpum; San Joaquin kit fox; blunt-nosed leopard lizard; San Joaquin antelope squirrel; salt marsh harvest mouse; Tipton's kangaroo rat; and, the Giant kangaroo rat.

The FEIR/EIS recommended measures 55, 56, 57, 58, 59, 60, 61 and 62 to supplement those initially proposed by the applicant (see prior impact discussion for a detailed description of 56, 57 and 58). These measures, in combination with those identified in the U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Game (CDFG) Biological Opinions would: mitigate for long-term loss of habitat; restrict vehicular use in the right-of-way; prohibit unauthorized plant or animal collection; require special revegetation measures; avoid kit fox den sites; provide special restoration measures at Pacheco Creek; and, avoid wetlands and vernal pools. Specifically, the FEIR/EIS states:

[55] Mitigation for the long-term loss of habitat (due to facility siting and right-of-way maintenance) will consist either of the improvement of marginal habitat on

CALENDAR PAGE	70.61
MINUTE PAGE	390

areas adjacent to the pipeline or the purchase of conservation easements along the corridor in areas that may be under the threat of agricultural conversion and which are currently occupied by listed or candidate species. Exact areas and acreages will be determined in consultation with USFWS, CDFG, SLC and the applicant.

- o Effectiveness: This measure compensates effectively for any long-term habitat impacts on special status species. It does not mitigate the impact of the loss of trees, if any, unless special provisions were to include this element in the agreements.

[59] Because the Tipton kangaroo rat inhabits alkali sink habitat, it will be revegetated with characteristic native plants. Specific details, including a schedule for monitoring to assure revegetation success, will be developed in the soil conservation plan.

- o Effectiveness: This measure will reduce impacts on this sensitive species. (See effectiveness of measures 57 and 58 above.)

[60] The pipeline alignment will be fine-tuned to avoid potential San Joaquin kit fox dens in the following locations:

Milepost	Proposed Realignment
18.2	70 feet to east
58.3	20 feet to west
67.9	60 feet to east
84.9	50 feet to east
87.8	70 feet to west
89.6	50 feet to west
120.0	70 feet to west
135.8-136.0	70 feet to west
142.2	20 feet to west
178.3	130 feet to west

The construction right-of-way will be reduced to 50 feet in these areas. If these potential den sites cannot be avoided, identified den sites will be monitored immediately prior to construction to determine if they are active. If they are, construction will be delayed in that location until foxes relocate.

- o Effectiveness: This measure will reduce direct mortality impacts on this special status species to insignificant.

[61] The soil conservation plan will provide for restoring the prevailing hydrology and topography at the Pacheco Creek crossing and for revegetation with pickleweed and other salt-tolerant plants characteristic of this habitat.

- o Effectiveness: This material will reduce impacts on brackish marsh and specifically on the salt marsh harvest mouse, a special status species.

[62] Realignment of the pipeline at mileposts 40.5 to 40.9 about 300 feet to the west to avoid a high quality wetland, and at milepost 227 to avoid a vernal pool.

- o Effectiveness: This measure will eliminate significant impacts on this important habitat.

Also, through lease condition No. 1, State Lands Commission assures that the necessary botanical surveys will be completed to the satisfaction of USFWS and CDFG.

The applicant, in a letter to the State Lands Commission dated February 9, 1987, amended their application to incorporate these measures. Therefore, this project, as amended will avoid or substantially lessen the impacts to special status species identified in the FEIR/EIS. The FEIR/EIS concludes that there would be no significant residual impacts to special status species after mitigations contained in this document and the bio-opinions (USFWS and CDFG) were implemented.

TERRESTRIAL AND AQUATIC BIOLOGY

IMPACT: Oil spill impact on habitat of special status species.

- FINDING:
- 1) Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the final EIR.
 - 3) Specific economic, social, or other considerations make infeasible the mitigation measures or project alternatives identified in the final EIR.

FACTS SUPPORTING THE FINDING:

Although the probability of a major oil spill is very small, if it were to occur, it would significantly affect terrestrial and aquatic resources on a short-term basis and could also cause significant impacts in the long-term. Vegetation will be destroyed. Animal mortality will occur, and animal life will be displaced or lost at least in the short-term. Any loss of special status plants and animals or their critical habitat would be significant. The extent and magnitude of the impact is dependent on the volume and location of the spill and the response time and cleanup techniques employed.

Special status vegetation and the vegetation of special areas are stationary and cannot avoid the impact of a spill. The special status wildlife species include various burrowing animals. Oil will fill the burrows and trap these animals and their young, allowing no room for escape (San Joaquin kit fox, San Joaquin antelope squirrel, and candidate species like the Tipton's kangaroo rat and San Joaquin pocket mouse). The impact would be significant, especially where a spill is sufficiently large to impact several special status species and/or special habitats, such as brackish marsh and riparian communities. A major spill at or near stream crossings could cause significant impacts whether or not a stream were flowing at the time.

In order to reduce the risk of spills various mitigations were incorporated into the initial application and are discussed in the sections of the FEIR/EIS dealing with System Safety and Reliability and Oil Spills. In addition, to deal with the specific consequences of a spill affecting the special

status species and their habitat, the FEIR/EIS recommended measures 78 and 79. These entail: notification of, and consultation with USFWS and CDFG in the event of a spill; and, updating the Oil Spill Contingency Plan to assure quick response to spills in areas of critical habitat. Specifically, the FEIR/EIS states:

[78] In the event of extensive maintenance or repair work or a spill in or near special status species habitat shown on Table 4-26, the USFWS and CDFG will be notified so that they can identify any special requirements.

- o Effectiveness: This measure will assist in the development of appropriate mitigation to reduce possible spill impacts to special status species but does not eliminate the potential for incidental mortality in advance of extensive pipeline right-of-way maintenance.

[79] The Oil Spill Contingency Plan will be updated to include specific measures to provide for quick response to spills in or near special status species habitat. The goal will be response and initial containment within 4 hours of identification of a spill by the Anaheim spill center. The Oil Spill Contingency Plan will require that the USFWS and CDFG be notified immediately of spills in or near endangered species habitats to afford the opportunity for consultation.

- o Effectiveness: Although this measure will minimize significant impacts on sensitive habitats, the impact of an oil spill will remain significant.

The applicant, in a letter to the State Lands Commission dated February 9 1987, amended their application to incorporate these measures. Therefore, the project as amended, will substantially lessen the impacts of a spill on special status species as identified in the FEIR/EIS.

The combination of mitigation measures outlined above constitute prudent and reasonable efforts to reduce the impacts of a spill on special status species. These measures will not, however, guarantee that such a spill will never happen. If a spill does occur and does affect special status species, the impacts would be significant. There are no alternatives available which would eliminate these effects except the no project alternative (see discussion of Alternatives at the end of this exhibit). Therefore, the Commission also adopts the finding of overriding considerations in Exhibit E.

SYSTEM SAFETY AND RELIABILITY

IMPACT: Fires at booster stations.

- FINDING:
- 1) Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the final EIR.

 - 3) Specific economic, social, or other considerations make infeasible the mitigation measures or project alternatives identified in the final EIR.

FACTS SUPPORTING THE FINDING:

The FEIR/EIS concluded that with the exception of fire control, the project, as proposed, has incorporated adequate system safety measures. Fire presents the only hazard for which new mitigation measures were proposed. The FEIR/EIS recommends measures 85, 86 and 87 to deal with this hazard. These measures would: require fire breaks at station sites; provide fire specific fighting equipment at station sites; and, require natural gas leak detection devices in all turbine enclosures. Specifically, the FEIR/EIS states:

[85] A fire break of at least 25 feet will be kept free of vegetation on the periphery of the station.

- o Effectiveness: The risk of a weed fire setting fire to the station will be reduced.

[86] In order to provide effective fire protection at the booster/injection stations in the event of a brush or weed fire, firefighting equipment will be stored at each station, including portable fire extinguishers for outdoor use, and shovels. Water will be available at each of the sites, and a 4-inch gravel bed will be installed in and around turbines and pumps for additional fire protection.

- o Effectiveness: The additional equipment will provide effective fire protection against brush or weed fires near the booster stations, thereby minimizing potential damage to the station or pumps. No significant residual effect.

CALENDAR PAGE	70.66
MINUTE PAGE	395

[87] Natural gas leak detection devices will be installed at all pump stations in the turbine enclosures.

- o Effectiveness: This measure will reduce the potential for explosion due to natural gas leaks to an insignificant level.

The applicant, in a letter to the State Lands Commission dated February 9, 1987, amended their application to incorporate these measures. Therefore, as amended, the project will substantially lessen the impacts due to system safety and reliability identified in the FEIR/EIS.

The combination of mitigation measures outlined above constitute prudent and reasonable efforts to reduce the risk and consequences of fires at the booster station sites. They will not, however, guarantee that fires will never happen. If a fire does occur its effects may be significant. There are no alternative actions available which would eliminate these effects, except the no project alternative (see discussion of Alternatives at the end of this exhibit). Therefore, the Commission also adopts the finding of overriding considerations in Exhibit E.

CALENDAR PAGE	70-67
MINUTE PAGE	396

OIL SPILL POTENTIAL

IMPACT: Oil spills during operation.

NOTE: The FEIR/EIS contains a separate section on Oil Spill Potential. Significant adverse impacts were identified in this section. Various mitigations were incorporated into the initial application to deal with these impacts. In addition, the FEIR/EIS recommended supplementary measures. These have been discussed in the respective sections which described the specific hazard or resource involved. See: Geologic Hazards; Surface Waters; and, Terrestrial and Aquatic Biology.

ALTERNATIVES

IMPACT: The various alternatives would eliminate some impacts identified in the FEIR/EIS but create others.

- FINDING:
- 1) Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the final EIR.
 - 2) Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency.
 - 3) Specific economic, social, or other considerations make infeasible the mitigation measures or project alternatives identified in the final EIR.

FACTS SUPPORTING THE FINDING:

The FEIR/EIS compared the various alternatives in terms of significant adverse impacts. It concluded that the differences between the proposed system and the alternatives "...are generally minor." In summary, with the exception of the oil fired heaters and their impacts on air quality, there is no clear choice between the alternatives. Specifically, the FEIR/EIS found:

Combination Route

The Combination Route has the same impact as the proposed route since it traverses similar features. A minor point is that the alternative route follows I-5 more closely than the proposed route for almost 7 miles, and this is preferred from a land use viewpoint.

The proposed route would be fully restored and revegetated in this flat area and would be farmed, as the Combination Route would probably be, also. Along I-5, there is less likelihood that the pipeline would be impacted by agricultural activities or other equipment. No strong case can be made for the selection of either route over the other, since the distance involved is small. No residual significant adverse impact is associated with one but not the other.

Contra Loma Route

The Contra Loma Route crosses lower topography and fewer steep slopes than the proposed route and is preferred in terms of soils stability. However, the Contra Loma Route avoids only a small number of the steep slopes crossed by the proposed route, since it is so short. The Contra Loma Route would cross an estimated five slopes steeper than 18% and 11 steeper than 12%, whereas the proposed route would traverse 10 slopes steeper than 18% and 12 steeper than 12%. The difference is small, considering that the proposed route traverses more than 50 slopes steeper than 18%, regardless of which route is selected. However, some of the steepest slopes (i.e., in excess of 35%) are avoided along the Contra Loma alternative.

Both routes cross the Concord Fault at Pacheco Creek; therefore, the risk of seismic hazards is the same.

The advantage that the Contra Loma Route has in avoiding the Black Diamond Mines Regional Park (1.4 acres) is offset by several land use conflicts unique to this route, including:

- o Proximity to subdivisions in the City of Antioch;
- o Traversing Contra Loma Regional Park; and,
- o Proximity (500 feet) to the Contra Loma Reservoir.

The Contra Loma Route would, like the proposed route, affect competing land uses for residential, landfill, and Highway 4 improvements. Neither route is free of significant impacts.

Three New Booster Station Alternative

The booster station alternative, which would integrate three new booster stations (SJU-2, 3 and 4) instead of the two proposed stations (SJU-2b and 3b), does not have significantly different environmental impacts from the proposed project. This assumes landscaping at SJU-3b (mitigation measure [39]) to avoid an impact on the Westley Rest Stop Park. The most substantial difference between the alternative and the proposed project is the requirement for additional land (less than 25 acres).

CALENDAR PAGE	70.70
MINUTE PAGE	399

Alternative Power Source Configurations

The alternative which proposes to use electricity to power the pumps and crude oil for the heaters has a significantly higher impact on air quality than either the proposed system (natural gas and cogeneration of heat) or the other alternative, which would rely on electricity and natural gas. The oil-burning alternative would result in SO₂ exceeding ambient standards by a factor of seven at SJU-3b.

Overhead Aqueduct Crossings

The environmental impacts of this alternative, which proposes to use suspension bridges to cross the canals and aqueducts, differ from those of the proposed action in regard to visual resources and potential spill impacts.

Visual resources (VRM Class 2 and 3) would be impacted in Kern, Kings, and Fresno counties. Any spill due to a break at the points of suspension into a canal or aqueduct, although unlikely, would directly impact substantial volumes of water until the system could be closed down. Because these aqueduct crossings would leave the pipeline exposed in six areas that would not be exposed in the proposed action, this alternative would create the possibility of above-ground damage causing spills into the aqueducts.

No Action Alternative

The no-action alternative is not without environmental impacts, if it would mean the use of other modes of oil transportation than a pipeline to convey the crude to Martinez. If it would not mean the use of other modes of transportation, no-action would have none of the environmental impacts described in this report.

The FEIR/EIS also analyzed an alternative set of pipeline diameters. In this analysis, the 20" diameter pipeline was found to have smaller "worst-case" oil spills. Such spills, if they occurred would still be significant. With the implementation of mitigation measures 7 and 70, the impacts from spills would be reduced. These measures would cause the maximum spills in critical areas to be much more comparable whether the 20" or 24" line is used. Also, mitigation measure 102 would improve the response to such a spill and therefore reduce its impact.

CALNDAR PAGE

70-71

MINUTE PAGE

400

Many of the impacts caused by the alternatives would be avoided or substantially lessened (Finding No. 1) by the measures the applicant amended into their application (see letter to the State Lands Commission dated February 9, 1987). All of these alternatives, however, are outside of the jurisdiction of the State Lands Commission. Therefore, the decision about which should or should not be implemented is the responsibility of other agencies (Finding No. 2). (In the letters of comment on the DEIR/EIS, several agencies expressed concerns with or opinions about one or more of the alternatives. These included: Contra Loma Route - City of Antioch opposed, Contra Costa County concerned; Overhead Aqueduct Crossings - Department of Water Resources favored over the proposed action; and, Booster Station 2 and Microwave 8 - County of Fresno appears to favor. Please see letters 4, 21, 17 and 20, respectively in the Finalizing Addendum.) They can and should consider the relative impacts of these alternatives. Finally, because there will be significant residual impacts caused by either the proposed action or any of the alternatives, with the possible exception of the no project alternative, the State Lands Commission adopts the finding of overriding consideration in Exhibit E.

EXHIBIT E

STATEMENT OF OVERRIDING CONSIDERATION

The San Joaquin Valley Pipeline project has potentially significant construction and operation impacts on the environment. Construction impacts would result primarily from the clearing, trenching, and backfilling along the right-of-way. Operation impacts would result primarily from potential oil spills and leaks. Potential impacts in each of these areas have been analyzed in detail in the EIR/EIS.

Many mitigation measures, can and will (by virtue of the applicant amending most of these into the project) be implemented to reduce the significant adverse effects of the project. (See CEQA findings, Exhibit D) These measures, when implemented, would substantially lessen the environmental impacts which may result from the project. However, for some significant impacts identified in the EIR/EIS there are no feasible mitigation measures which would totally reduce the impacts to a level of insignificance.

The FEIR/EIS provided the following information about the purpose and needs for this project:

The San Joaquin Valley Pipeline project is proposed as a means of assuring a reliable supply of crude oil for delivery at a competitive price from Kern County oil fields to Shell's refinery in Martinez. Under an exchange agreement with Texaco, Shell currently transports 120 MBD of oil through Texaco's heated pipeline, which extends from the Caliola tank farm in Fresno County to refineries in Contra Costa County. This exchange agreement expires in 1988 after which the Texaco pipeline will be available to Texaco and independent producers and refiners having protected rights to use the pipeline under the Texaco/Federal Trade Commission Consent Decree (related to Texaco's acquisition of the Getty Oil Company). Once this decree becomes effective, it could reduce the transmission capacity available to Shell in the Texaco pipeline. In addition, Texaco's own transportation requirements could reduce or preempt the pipeline capacity available to Shell.

Economic factors also support a proposal to build a pipeline to the Martinez refinery. The Texaco pipeline, with a 20-inch diameter, is currently transporting over 200 MBD, including Shell's component of about 120 MBD. This 200-MBD total volume is at or near the pipeline's

capacity, and because this flow rate exceeds optimum operating costs on a per-barrel basis, it is not cost-effective for Shell to continue to transport oil through the Texaco pipeline, even if Shell could obtain a long-term guarantee for its 120-MBD share of the total capacity. Additionally, because the Texaco line is privately owned and operated, Shell must pay for the right to use this pipeline, a cost it would avoid if San Joaquin Valley Pipe Line Company implemented the project. The costs of building the San Joaquin Valley Pipeline are currently estimated at \$110 million, and it is uncertain if cost savings alone are sufficient to justify the project. However, the project's main objectives are reliable and cost-competitive oil transportation, and these would be achieved by building a new pipeline.

This project will provide a transportation link between areas long established in oil production and refining. Shell Oil first became involved in oil production in the San Joaquin Valley in the 1900's. Prior to 1920, the first pipeline between Coalinga and the Martinez Refinery was established. This connection was expanded (looped) in the '30's. With the advent of steam injection, Getty laid the line currently owned and operated by Texaco in the late 1960's. Shell substantially increased its holdings in the San Joaquin Valley with the purchase of the Belridge Field in 1980. Their refinery in Martinez was being upgraded at about this same time.

Transportation of oil by pipeline will result in land disturbance and impacts on terrestrial biology. By comparison, however, other forms of transportation would have greater potential for significant adverse impacts. In the discussion of alternatives considered but eliminated from detailed analysis, the FEIR/EIS states:

Other means of transporting oil from Weir to Martinez were considered, but rejected because of greater environmental impacts, logistical difficulties, and higher cost compared to pipeline transport. Alternative transportation means initially considered included trucks, railroad, and tankers. About 600 trucks would be required to travel between Weir and Martinez each day, or, alternatively, three sets of trains containing 72 cars each would be required, in order to deliver 120 MBD to Martinez. Compared to pipeline transport, either of these transportation methods would cost more, would increase highway or rail traffic, and would greatly increase the risk of oil spills resulting from accidents

or oil transfers. Marine transport was rejected because of its impracticality; the oil-production areas associated with the project are landlocked, and this alternative would therefore require that oil be transported to the coast, either by truck, rail, or pipeline, before it could be loaded onto tankers. Any route to the coast would have to cross the rugged Coastal Ranges.

Only the "no project" alternative would completely eliminate all significant impacts (assuming of course that the other modes of transport described above were not employed). However, the Commission has examined this alternative and finds it unacceptable. The State has, for many years, endorsed the use of pipelines over other forms of transportation. This policy has been supported by various studies which endorse pipeline transportation over other forms.

The proposed project is consistent with the national economic and energy policy goals of assuring national security and reducing dependence on foreign sources of foreign crude.

The State Lands Commission has considered the benefits and the nature and extent of the impacts of the project as described in the EIR/EIS for the Proposed San Joaquin Valley Pipeline Project and as discussed in Appendix D of the Calendar Item. From this review, the Commission finds that, in balancing the project's benefits against its unavoidable environmental risks, the benefits outweigh the level of environmental risks which would remain after the application of mitigation measures discussed in the EIR/EIS and in Exhibit D.