INITIAL STUDY
FOR
ENVIRONMENTAL IMPACT ASSESSMENT
OF
WELL 30 (WELL 16 REPLACEMENT) AND WELL 31
AND
CONNECTING PIPELINES

Prepared by
KRIEGER & STEWART, INCORPORATED
ENGINEERING CONSULTANTS
3602 UNIVERSITY AVENUE, SUITE 201
RIVERSIDE, CA 92501
(714) 684-6900

SIGNATURE Robert A Krieger
DATE 24 JUNE 91

178-76.2
(RAK/blt)
CHAPTER I
GENERAL INFORMATION

A. PROJECT

The project consists of constructing Well 30 (Well 16 Replacement) and Well 31 within the District and within property now being acquired by the District, together with connecting pipelines within said property or within adjacent or contiguous roads or streets or easements. Said property contains approximately 67 acres and is contiguous with Inyokern Road (Highway 178) on its north line. The project may be preceded by a test or monitoring well within the same property.

The aforementioned property (assessor’s parcel number 352-090-38) is situated within the west half of the northwest quarter of Section 27, Township 26 South, Range 39 East, Mount Diablo Meridian (MDM). It is generally bounded by Inyokern Road (Highway 178) on the north, Victor Street on the west, Anita Avenue (or Ward Avenue) on the south, and Charles Street (or parcels facing Charles Street) on the east. Well 30 will be located in the northeast corner of said property in the vicinity of Inyokern Road and Charles Street, easterly of Dixie Wash. Well 31 will be located in the southwest corner of said property in the vicinity of Victor Street and Anita Avenue, also easterly of Dixie Wash. The locations for Well 30 and Well 31 are shown by the attached Project Location Map.

The District has recently adopted the policy of constructing and equipping wells to produce about 1,200 gpm, therefore, these wells will be equipped to produce about 1,200 gpm each. They will be constructed 16 inches in diameter and about 1,000 feet in depth. They will be perforated at depth, probably between 400 and 1,000 feet. The well depth and perforated interval will be established based on formation samples and geophysical logs. The wells will be equipped with deep well turbine pumps driven by electric motors. The well plants will be equipped with natural gas engine generator sets for alternative energy and standby power. The wells will be connected to the 30 inch Northwest Transmission Pipeline with connecting pipelines of 16 inches to 24 inches in diameter.

Existing Well 16 has a capacity of about 450 gpm and existing Well 17 has a capacity of about 750 gpm. As part of an effort to improve the District’s water supply, the District recently adopted
a Negative Declaration and approved a project to reduce the capacity of Well 8 from about 2,400 gpm to about 1,400 gpm, and to increase the capacity of Well 17 from about 750 gpm to about 2,000 gpm. Based on the District’s recent decision to equip wells with pumping units having capacities of about 1,200 gpm, and as part of this project, the capacity of Well 8 will be reduced to about 1,200 gpm and the capacity of Well 17 will be reduced to about 1,200 gpm, about 1,000 gpm less than adopted by the aforementioned Negative Declaration. The capacity of existing Well 16 and the surplus capacities of Wells 8 and 17 combine to 1,450 gpm, exceeding the proposed capacity of Well 30 (Well 16 Replacement) by about 250 gpm. Well 31 will have about the same capacity as Well 30.

Available water supplies will be used to meet current and increasing water supply demands. Currently, the District has well production capacity barely sufficient to meet maximum day demands, provided all its well pumping plants are in operation. The District cannot meet said demands adequately or reliably if any of its primary well pumping plants are lost to service (equipment failure, power outage). The proposed wells will increase the District’s standby well production capacity by about 10 percent. It should be 15 percent or more.

Existing energy supplies are adequate for the proposed pumping plants. Electricity is available from the Southern California Edison Company and each plant will be equipped with a natural gas engine generator set for auxiliary and standby purposes and as an alternate energy source. Natural gas is available from the Pacific Gas and Electric Company. These two sources of energy will give the proposed pumping plants exceptional energy source reliability.

**B. AUTHORITY**

The Indian Wells Valley Water District, through "County Water District Laws", can construct, operate, maintain, rejoin, and replace water system facilities as needed to provide water service and to comply with applicable laws. The District routinely constructs new facilities, and maintains and replaces them as necessary to maintain adequate and reliable domestic water services for its customers. The proposed project is a continuation of the authority that the District has exercised in the past.
C. LEAD AGENCY

Indian Wells Valley Water District is Lead Agency since it is the public agency which has the principal responsibility for preparing environmental documents and for carrying out and approving the project. Since the District is responsible for the project, it must comply with its own California Environmental Quality Act (CEQA) procedures, which conform with the requirements of CEQA and the CEQA guidelines issued by the State.

D. RESPONSIBLE AGENCIES

There are no responsible agencies since there are no federal, state, regional, or local public agencies, other than the lead agency, which have discretionary approval power over the project. The California Department of Health Services must amend the District’s water supply permit to reflect the construction of Wells 30 and 31, and the California Department of Transportation (CalTrans) must issue excavation and encroachment permits for connection piping crossing Inyokern Road between the wells and the Northwest Transmission Pipeline which is currently under construction. None of the actions of these two agencies constitute discretionary approval of the project or any of its components.

E. POTENTIAL ENVIRONMENTAL IMPACTS

Pursuant to CEQA requirements, this study has been prepared to determine if the project may have significant impacts on the environment. Potential environmental impacts are addressed in Chapter II.

F. COMPATIBILITY WITH ZONING AND PLANNING

The project is not inconsistent with applicable zoning and planning for the area. The wells will be situated on one-half acre sites situated adjacent to or contiguous with existing roads or streets but sufficiently distant to meet California Department of Health Services clearance requirements with respect to existing and future individual sewage disposal systems.
G. RELATED/ASSOCIATED PROJECTS

Well 30 and Well 31 will discharge to the District’s 30 inch Northwest Transmission Pipeline which is scheduled for construction this summer. The pipeline alignment was adopted by the District’s Board of Directors on November 27, 1988 as evidenced by Negative Declaration dated January 4, 1989.

Wells 30 and 31 will more than offset planned reductions in pumping capacity of Wells 8 and 17. A reduction in Well 8’s capacity from 2,400 gpm to 1,400 and an increase in Well 17’s capacity from 750 gpm to 2,000 gpm was adopted by the District’s Board of Directors on January 14, 1991 as evidenced by Notice of Determination dated January 15, 1991. Well 8’s capacity will be further reduced by 200 gpm, to 1,200 gpm, and Well 17’s capacity will be reduced from 2,000 gpm to 1,200 gpm by this project.

H. MITIGATION MEASURES

No specific mitigation measures are proposed. The District is currently expanding its groundwater monitoring program, therefore, groundwater conditions in the vicinities of the proposed wells will be monitored as to water levels and water quality. The District may construct a test or monitoring well within the vicinity of Wells 30 and 31 to expand knowledge of the groundwater basin in that area before implementing the project, if needed.

Connecting pipelines will be constructed within existing graded roads; they will not be constructed across undisturbed property. The connecting pipelines will be located to avoid street paving as well as trees and shrubs. Construction will be inspected for compliance with contract documents and work will be restricted to road rights-of-way or pipeline easements. Pipeline easements will be limited to future street rights-of-way.

Well 30 and Well 31 are each located easterly of Dixie Wash (a sizable stormwater channel). The wells will be protected from flooding by raised pads equipped with armored slope protection. Flood control improvements at the well sites will not adversely affect hydraulic capacity of the existing stormwater channel, however, they will protect each well to avoid contamination as well as power outage during storm flows. The connecting pipelines will also be protected against storm runoff.
Each one-half acre site will be graded and fenced. Each site will be equipped with separate drive and walk gates. The plant equipment will be housed to control noise and painted to blend with surroundings. Site lighting will be limited; it will also be directed downward to avoid glare. Plant access will be accomplished over existing graded roads. The site for Well 30 has been disturbed. It has been graded level and compacted. The site is essentially devoid of vegetation. The site for Well 31 has also been disturbed, however, it contains some, but limited vegetation. The parcel, except for the two separate well sites, will remain virtually undisturbed.
CHAPTER II
ENVIRONMENTAL IMPACT ASSESSMENT

A. EXISTING ENVIRONMENT

Wells 30 and 31 will be situated within one-half acre sites located within a single parcel of land owned by the District, and the connecting pipelines will be located within adjacent or contiguous roads, streets, or easements. Each site will be graded and fenced. Each site will also contain a single well, equipped with a single pump and related power equipment, and plant piping, all housed in buildings.

Well 30 will be located within the northeasterly portion of said parcel of land within an area which had been cleared, graded, and compacted. The site is devoid of any plant growth. The site accommodated a mobile home which has subsequently been removed.

Well 31 will be located in the southwesterly portion of the aforementioned parcel of land in an area which had been used as a soil depository. Although the site has been disturbed, it has not been cleared, graded, and compacted. It contains limited vegetation. The aforementioned parcel of land (about 67 acres), except for the two separate well sites, will remain virtually undisturbed.

Connecting pipelines will be situated within the well sites or within disturbed areas within roads, streets, or easements. The Well 30 connecting pipeline will be extended into Inyokern Road. The Well 31 connecting pipeline will be extended into and along Anita Avenue (or Ward Avenue) through either Charles Street or Victor Street, whichever is selected during engineering design. Anita Avenue, Charles Street, and Victor Street are graded roads. The connecting pipelines from these wells will join together to cross Inyokern Road. The Inyokern Road crossing will be placed in a conductor casing under the highway as required by CalTrans.

Based on the District’s experience with Well 17, which is located about one and one-half miles east of the Well 30 site and about one and three-quarter miles east, northeast of the Well 31 site, Wells 30 and 31 should produce adequate quantities of potable water to meet current District needs. Well 17 is a 16 inch diameter well cased to a depth of 1,030 feet. It is perforated at three separate intervals from 410 feet to 1,015 feet. During tests, the well produced 2,500 gpm at a specific capacity of 42 gpm per foot of drawdown. The water produced by the well had a total
dissolved solids content of about 200 parts per million, meeting all California Department of Health Services quality requirements. When it is equipped with a 1,200 gpm pumping unit, water level drawdown will be about 30 feet. Because of their reasonably close proximity, Wells 30 and 31 are expected to produce about the same quantities of equal quality water as Well 17.

The District recently adopted a policy limiting well production capacities to 1,200 gpm and spacing wells at least one-half mile apart. Wells 30 and 31 will be located about one-half mile from one another and more than one and one-half miles westerly of Well 17. Well 17 is located about two miles westerly of the District’s well field (Wells 8, 9, and 10). The production capacities and site locations for Wells 30 and 31 are consistent with the District’s recently adopted policy for capacity and spacing. In addition, the locations are consistent with the District’s earlier policy of dispersing pumping by constructing new wells to the west of its existing well field.

B. ENVIRONMENTAL EFFECTS

Potential effects which could result from the project are summarized on the environmental checklist attached and are addressed below:

1. Earth

Temporary impacts to earth resources will occur during well drilling, plant grading, and pipeline trenching and backfilling for the proposed facilities, however, the contractor will perform the work in compliance with District requirements. Areas that are now paved will be repaved in accordance with County or Caltrans requirements, whichever are applicable. No changes in topography, disruptions of unique physical features, or changes in erosion are anticipated since construction will occur within disturbed sites or along established roadways. Once the project is completed, the areas disturbed by construction will be restored to previous condition or improved to better condition.
2. **Air**

Air resources will not be significantly impacted. Contract documents will require the use of construction machinery with suitable air pollution control devices. If necessary, dust palliatives (such as water) will be used to control dust caused by construction operations.

3. **Water**

Wells 30 and 31 will change the direction of groundwater flow within the immediate vicinity of each well, however, the general direction of groundwater flow will continue easterly. Groundwater extractions may eventually result in a net annual increase in groundwater overdraft of 400 to 800 acre feet. Neither the change in the direction of flow nor the potential net increase in annual groundwater extractions are significant.

4. **Plant Life**

Plant life will not be significantly impacted.

5. **Animal Life**

Animal life will not be significantly impacted.

6. **Noise**

A natural gas engine drive unit at either Well 30 or Well 31 could increase existing noise levels, however, each engine will be enclosed in a weatherproof shelter which will limit noise pollution. Noise levels are therefore not expected to increase.

Noise produced by construction operations will be kept to a minimum. Contractors will be required to equip all construction machinery and equipment with noise control devices. Regardless, construction activities will be relatively short lived, therefore, construction noise will be limited.
7. **Light and Glare**

Lighting at Wells 30 and 31 pumping plants will be insignificant and the connecting pipelines will be buried; therefore, no light or glare impacts are anticipated.

8. **Land Use**

Land use will not be significantly altered or impacted.

9. **Natural Resources**

The project may eventually result in a net increase in annual water production of 400 to 800 acre feet, if system demand warrants. The wells will only be pumped as required to meet demand so that actual production will not increase until demand increases. Since the Indian Wells Valley is presently in an overdraft condition, overdraft will be increased by the net increase in groundwater extracted. Regardless, the project will more effectively disperse water production within the intermediate area and alleviate the pumping depression in the groundwater basin underlying the District’s well field.

10. **Risk of Accident**

The project does not involve any risk of an explosion or the release of hazardous substances and will not interfere with emergency response plans or emergency evacuation plans. The proposed facilities will increase the reliability of the District’s water supply, rendering it less vulnerable to damage or outage.

11. **Population**

The project is essentially intended to augment existing District water supplies to meet current demands, primarily to maintain existing well production capacity and to provide some standby well production capacity.
12. Housing

The project is essentially intended to augment existing District water supplies to meet current demands, primarily to maintain existing well production capacity and to provide some standby capacity.

13. Transportation and Circulation

The project will not impact current transportation and circulation conditions.

14. Public Services

The project will not increase the need for public services; quite the contrary, it will improve the District’s ability to provide water service for municipal purposes as well as fire protection.

15. Energy

The project will not result in a significant increase in energy use. It will also not place a substantial burden on existing energy services.

16. Utilities

The project will not require substantial alterations to any utilities, however, service lines will have to be extended to each well site for both electric and natural gas service.

17. Human Health

The project will not have any adverse human health effects. The project will improve the District’s water supply, thus improving its system reliability and, therefore, water service. Adequate and reliable water service is needed to maintain community health.
18. **Aesthetics**

The project will not result in the obstruction of any scenic vistas or public views and the sites will not be aesthetically offensive. The well pumping plants will occupy limited sites and the onsite structures will be painted to blend with their surroundings.

19. **Recreation**

The project will not have an impact on any recreational opportunities, existing or proposed.

20. **Cultural Resources**

The project will not adversely affect or impact any prehistoric or historic archaeological site; any prehistoric or historic building, structure, or object; any unique ethnic cultural value; or any religious or sacred uses, existing or proposed.
ENVIRONMENTAL CHECKLIST FORM
(To be completed by Lead Agency)

I. BACKGROUND

1. Name of Proponent: INDIAN WELLS VALLEY WATER DISTRICT

2. Address and Phone Number of Proponent:
   500 WEST RIDGE CREST BOULEVARD
   R. O. BOX 399
   RIDGE CREST, CA. 93556

3. Date of Checklist Submitted: 24 JUNE 91

4. Agency Requiring Checklist: INDIAN WELLS VALLEY WATER DISTRICT

5. Name of Proposal, if applicable: CONSTRUCTION OF WELL 30 (WELL 16 REPLACEMENT), WELL 31, AND CONNECTING PIPELINE

II. ENVIRONMENTAL IMPACTS

(Explanations of all "Yes" and "Maybe" answers are required on attached sheets.)

1. Earth. Will the proposal result in:

   a. Unstable earth conditions or in changes in geologic substructures? YES MAYBE NO

   b. Disruptions, displacements, compaction or overcovering of the soil? YES MAYBE NO

   c. Change in topography or ground surface relief features? YES MAYBE NO

   d. The destruction, covering or modification of any unique geologic or physical features? YES MAYBE NO

   e. Any increase in wind or water erosion of soils, either on or off the site? YES MAYBE NO

   f. Changes in deposition or erosion of beach sands, or changes in siltation, deposition or erosion which may modify the channel of a river or stream or the bed of the ocean or any bay, inlet or lake? YES MAYBE NO

   g. Exposure of people or property to geologic hazards such as earthquakes, landslides, mudslides, ground failure or similar hazards? YES MAYBE NO

2. Air. Will the proposal result in:

   a. Substantial air emissions or deterioration of ambient air quality? YES MAYBE NO
b. The creation of objectionable odors?  
YES  MAYBE  NO  

---  ---  ✓  

c. Alteration of air movement, moisture or temperature, or any change in climate, either locally or regionally?  
YES  MAYBE  NO  

---  ---  ✓  

d. Emission of hazardous air pollutants within one-fourth of a mile of a school?  
YES  MAYBE  NO  

---  ---  ✓  

e. Burning of municipal wastes, hazardous waste or refuse-derived fuel and consists of either the construction of a new facility or the expansion of an existing facility by more than 10 percent?  
YES  MAYBE  NO  

---  ---  ✓  

3. **Water.** Will the proposal result in:  

a. Changes in currents, or the course or direction of water movements, in either marine or fresh waters?  
YES  MAYBE  NO  

---  ---  ✓  

b. Changes in absorption rates, drainage patterns, or the rate and amount of surface water runoff?  
YES  MAYBE  NO  

---  ---  ✓  

c. Alterations to the course of flow of flood waters?  
YES  MAYBE  NO  

---  ---  ✓  

d. Change in the amount of surface water in any water body?  
YES  MAYBE  NO  

---  ---  ✓  

e. Discharge into surface waters, or in any alteration of surface water quality, including but not limited to temperature, dissolved oxygen or turbidity?  
YES  MAYBE  NO  

---  ---  ✓  

f. Alteration of the direction or rate of flow of ground waters?  
YES  MAYBE  NO  

✓  ---  

g. Change in the quantity of ground waters, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations?  
YES  MAYBE  NO  

✓  ---  

h. Substantial reduction in the amount of water otherwise available for public water supplies?  
YES  MAYBE  NO  

---  ---  ✓  

i. Exposure of people or property to water related hazards such as flooding or tidal waves?  
YES  MAYBE  NO  

---  ---  ✓  

j. Significant changes in the temperature, flow or chemical content of surface thermal springs?  
YES  MAYBE  NO  

---  ---  ✓  

4. **Plant Life.** Will the proposal result in:  

a. Change in the diversity of species, or number of any species of plants (including trees, shrubs, grass, crops, microflora and aquatic plants)?  
YES  MAYBE  NO  

---  ---  ✓  

b. Reduction of the numbers of any unique, rare or endangered species of plants?  

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c. Introduction of new species of plants into an area, or in a barrier to the normal replenishment of existing species?  

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d. Reduction in acreage of any agricultural crop?  

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5. **Animal Life.** Will the proposal result in:

a. Change in the diversity of species, or numbers of any species of animals (birds, land animals including reptiles, fish and shellfish, benthic organisms or insects)?  

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b. Reduction of the numbers of any unique, rare or endangered species?  

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c. Introduction of new species of animals into an area, or result in a barrier to the migration or movement of animals?  

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d. Deterioration to existing fish or wildlife habitat?  

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6. **Noise.** Will the proposal result in:

a. Increases in existing noise levels?  

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b. Exposure of people to severe noise levels?  

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7. **Light and Glare.** Will the proposal produce new light and glare?  

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8. **Land Use.** Will the proposal result in a substantial alteration of the present or planned land use of an area?  

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9. **Natural Resources.** Will the proposal result in:

a. Increase in the rate of use of any natural resources?  

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b. Substantial depletion of any nonrenewable natural resource?  

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10. **Risk of Upset.** Will the proposal involve:

a. A risk of an explosion or the release of hazardous substances (including but not limited to oil, pesticides, chemicals or radiation) in the event of an accident or upset condition?  

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b. Possible interference with an emergency response plan or an emergency evacuation plan?  

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11. **Population.** Will the proposal alter the location, distribution, density, or growth rate of the human population of an area?

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12. **Housing.** Will the proposal affect existing housing, or create a demand for additional housing?

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13. **Transportation/Circulation.** Will the proposal result in:
   a. Generation of substantial additional vehicular movement?
   b. Effects on existing parking facilities, or demand for new parking?
   c. Substantial impact upon existing transportation systems?
   d. Alterations to present patterns of circulation or movement of people and/or goods?
   e. Alterations to waterborne, rail or air traffic?
   f. Increase in traffic hazards to motor vehicles, bicyclists or pedestrians?

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14. **Public Services.** Will the proposal have an effect upon, or result in a need for new or altered governmental services in any of the following areas:
   a. Fire protection?
   b. Police protection?
   c. Schools?
   d. Parks or other recreational facilities?
   e. Maintenance of public facilities, including roads?
   f. Other governmental services?

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15. **Energy.** Will the proposal result in:
   a. Use of substantial amounts of fuel or energy?
   b. Substantial increase in demand upon existing sources of energy, or require the development of new sources of energy?

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16. **Utilities.** Will the proposal result in a need for new systems, or substantial alterations to the following utilities:
   a. Power or natural gas?

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b. Communications systems?  

YES  MAYBE  NO

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c. Water?  

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d. Sewer or septic tanks?  

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e. Storm water drainage?  

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f. Solid waste and disposal?  

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17. Human Health. Will the proposal result in:

a. Creation of any health hazard or potential health hazard (excluding mental health)?  

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b. Exposure of people to potential health hazards?  

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18. Aesthetics. Will the proposal result in the obstruction of any scenic vista or view open to the public, or will the proposal result in the creation of an aesthetically offensive site open to public view?  

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19. Recreation. Will the proposal result in an impact upon the quality or quantity of existing recreational opportunities?  

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20. Cultural Resources.

a. Will the proposal result in the alteration or destruction of a prehistoric or historic archeological site?  

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b. Will the proposal result in adverse physical or aesthetic effects to a prehistoric or historic building, structure or object?  

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c. Does the proposal have the potential to cause a physical change which would affect unique ethnic cultural values?  

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d. Will the proposal restrict existing religious or sacred uses within the potential impact area?  

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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?  

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b. Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals? (A short-term impact on the environment is one which occurs in a relatively brief, definitive period of time while long-term impacts will endure well into the future.)

   YES  MAYBE  NO
   __  __  
   
   c. Does the project have impacts which are individually limited, but cumulatively considerable? (A project may impact on two or more separate resources where the impact on each resource is relatively small, but where the effect of the total of those impacts on the environment is significant.)

   YES  MAYBE  NO
   __  __  
   
   d. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

   YES  MAYBE  NO
   __  __  

22. **EIR Tiering Determination.**
(See § 12 Tiering Guidelines.)

   a. Is this project consistent with a program, plan, policy or ordinance for which an EIR has been prepared and certified?

   YES  MAYBE  NO
   __  __  

   b. Is this project consistent with applicable local land use plans and zoning of the city and county in which it is located?

   YES  MAYBE  NO
   __  __  

   c. May this project cause significant effects on the environment that were not examined in the prior EIR?

   YES  MAYBE  NO
   __  __  

III. **DISCUSSION**

On attached sheets, discuss:

1. The environmental evaluation.
2. Ways, if any, to mitigate any significant effects identified.
3. Compatibility with existing zoning and plans.
IV. DETERMINATION
(To be completed by the Lead Agency.)

On the basis of this initial evaluation:

✓ I find the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☐ 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 by the applicant. A MITIGATED NEGATIVE DECLARATION WILL BE PREPARED.

☐ I find the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project may have a significant effect on the environment, but that this project is consistent with a previously prepared TIERED EIR on the overall program, plan, policy or ordinance, and that such TIERED EIR adequately examines the possible environmental effects of this project.

Date: 24 June 91

(Signature)

For KRIEGER & STEWART
DISTRICT ENGINEERS