



MID MERCED IRRIGATION DISTRICT

December 10, 2001

Mr. Ed Anton, Chief
State Water Resources Control Board
Division of Water Rights
P.O. Box 2000
Sacramento, CA 95812-2000


Dear Mr. Anton:

Enclosed is a Petition for Change to add incidental power generation to Merced Irrigation District's (Merced) post-1914 consumptive use water rights. As described in the petition, these power plants were constructed on the existing Merced conveyance facilities in the early 1980s. Because only water diverted for irrigation purposes has ever been used in these power plants, Merced was of the opinion that no changes to its water rights were necessary. As a result of the recent water right compliance review by your staff, it was determined this petition should be submitted to authorize the incidental power use at these power plants.

The enclosed petition proposes to add the power plants to the place of use because they are on the conveyance facilities outside the current place of use of these water right licenses. The petition responds to the specific criteria contained in Section 799 of Title 23, Division 3, Chapter 2, Article 15, regarding the Petition for Change to add a power plant to existing works. It is our opinion that it is not necessary to publicly notice this type of petition which we believe should be processed through and completed by an administrative change. Because we believe this can be processed through an administrative change, we have not completed the Environmental Information for Petitions as we do not believe this would be necessary pursuant to an administrative change to an existing water right license.

After you have reviewed the enclosed petition, please call if you have questions or concerns relative to the processing of it as an administrative change.

Sincerely,
MERCED IRRIGATION DISTRICT



Ross Rogers, General Manager

MVC/mv
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Enclosure

cc: Ken Robbins
Marc Van Camp

State of California
State Water Resources Control Board
DIVISION OF WATER RIGHTS
P.O. Box 2000, Sacramento, CA 95812-2000
Info: (916) 657-2170, FAX: (916) 657-1485, Web: <http://www.waterrights.ca.gov>

STATE WATER RESOURCES CONTROL BOARD
SACRAMENTO
2001 DEC 11 PM 4:21

PETITION FOR CHANGE
(WATER CODE 1700)

Application see Point of Diversion, Point of Rediversion, Place of Use, Purpose of Use
attachment Permit _____ License _____ Statement or Other _____

I (we) hereby petition for change(s) noted above and shown on the accompanying map and described as follows:

Point of Diversion or Rediversion (Give coordinate distances from section corner or other ties as allowed by Cal CR 715, and the 40-acre subdivision in which the present & proposed points lie.)

Present New Exchequer Dam. McSwain Dam. Merced Falls Dam. Crocker-Huffman Div. Dam
Proposed No change

Place of Use (If irrigation then state number of acres to be irrigated within each 40-acre tract.)

Present Merced Irrigation District
Proposed See Attachment

Purpose of Use

Present Irrigation, Domestic, Recreational, Fish & Wildlife Protection & Enhancement & Fish Culture
Proposed Add incidental power generation

Does the proposed use serve to preserve or enhance wetlands habitat, fish and wildlife resources, or recreation in or on the water (See WC 1707)? No

GIVE REASON FOR PROPOSED CHANGE: See Attachment

WILL THE OLD POINT OF DIVERSION OR PLACE OF USE BE ABANDONED? No

WATER WILL BE USED FOR Power generation incidental to existina PURPOSES.

I(we) have access to the proposed point of diversion or control the proposed place of use by virtue of? ownership

Are there any persons taking water from the stream between the old point of return flow and the new point of return flow? N/A

If by lease or agreement, state the name and address of party(s) from whom access has been obtained.

Give name and address of any person(s) taking water from the stream between the present point of diversion or rediversion and the proposed point of diversion or rediversion, as well as any other person(s) known to you who may be affected by the proposed change.

N/A

THIS CHANGE DOES NOT INVOLVE AN INCREASE IN THE AMOUNT OF THE APPROPRIATION OR SEASON OF USE.

I (we) declare under penalty of perjury that the above is true and correct to the best of my (our) knowledge and belief.

Dated Dec 10, 2001 at Merced Calif, California

Signature(s) Telephone No. 209-722-5761

NOTE: A \$100 filing fee made payable to the State Water Resources Control Board and a \$850 fee made payable to the Department of Fish and Game must accompany a petition for change.

Attachment to Petition for Change

Merced Irrigation District (Merced) is petitioning to add incidental power generation to its three consumptive use post-1914 appropriative water rights.

Application No.	License No.
1224	2685
10572	6047
16186	11395

During the early 1980s, three small power plants were constructed on the existing conveyance facilities of Merced. The power plants are owned by Merced and the County of Merced but are operated and maintained through a lease arrangement with Turlock Irrigation District. As a result of the Division of Water Rights' compliance review, it was determined this petition was necessary to complete Merced's authorization for use of water under its existing water rights for incidental power use.

Pursuant to Section 799 (Title 23, Division 3, Chapter 2, Article 15), a licensee may add power generation to its license as long as it does not change the stream flow regime. The criteria that shall be considered in determining whether there would be a change in the stream flow regime include, but are not limited to, the following: (1) Will the rate and volume of flow be changed? (2) Will the water temperature be changed? (3) Will there be changes in the concentration of dissolved oxygen or turbidity? (4) Will there be changes in the timing of water releases from any existing water diversion or storage facility? (5) Will there be a change in the point of discharge or will any additional section of watercourse be bypassed?

The flow through the power plants is completely incidental to the use of water for agricultural purposes. Merced responds to each of the above criteria as follows:

- 1) No change in the rate and volume of flow has or will occur as a result of adding these power plants. As indicated above, the power plants are entirely incidental to use of water for agricultural purposes. There is no economic incentive to run the power plants for power generation only. Therefore, the power plants are operated only when there is an irrigation demand and adequate flow is being diverted into the conveyance facilities. Outside the irrigation season, Merced does not divert water into its conveyance facilities in order to accommodate local storm runoff in coordination with the US Army Corps of Engineers.
- 2) No change in the temperature of water returning to a natural stream will occur as a result of adding these power plants. Theoretically, the water temperature increases as it runs through the power plants. This water is then delivered to water users within Merced. Water use efficiency within Merced is high; therefore, only small quantities of tail water return to the surface system. Although temperature measurements are not taken because of travel time and use, this tail water likely returns at a temperature resulting from the ambient air temperature. This temperature would be reached without the minor, if any, increase in temperature at the power plants.

3) No changes in the concentration of dissolved oxygen or turbidity in Merced's tail water will occur as a result of adding these power plants.

4) There will be no changes in the timing of water releases from any existing facilities. As identified above, power generation is incidental only.

5) There will be no change in the point of discharge. The power plants are on Merced's canal which delivers water for irrigation. After irrigation, any tail water is returned to natural channels or drains. The power plants are incidental to and upstream from the lands being irrigated and, therefore, have no effect on the point of discharge.

The following are responses to specific sections of the Petition for Change form.

Place of Use

Merced proposed to add the following three power plants to the place of use. These power plants are located on Merced's existing conveyance facilities but outside its current place of use.

Power Plant	Location (MDB&M)
Parker	SE SW S21 5S 14E
Reta	NE SE S36 5S 13E
Papazian	NW SE S34 6S 14E

MVC/mv

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GOVERNMENTAL REQUIREMENTS

Before a final decision can be made on your change petition, we must consider the information contained in an environmental document prepared in compliance with the requirements of CEQA. If an environmental document has been prepared for your proposed changes by another agency, we must consider it. If one has not been prepared, a determination must be made as to who is responsible for the preparation of the environmental document for your change petition. The following questions are designed to aid us in that determination.

- 2. Contact your county planning or public works department for the following information:
 - a. Person contacted See Attachment. Date of contact _____
Department _____ Telephone () _____
 - b. Assessor's Parcel No. _____
 - c. County Zoning Designation Agricultural _____
 - d. Are any county permits required for your proposed changes? See Attachment.
If yes, check appropriate space below:
_____ Grading Permit, _____ Use Permit, _____ Watercourse
Obstruction Permit, _____ Change of Zoning, _____ General Plan
Change, Other (explain):

 - e. Have you obtained any of the required permits described above? _____
If yes, provide a complete copy of each permit obtained.

- 3. Are any additional state or federal permits required for your proposed changes? No (i.e., from Federal Energy Regulatory Commission, U.S. Forest Service, Bureau of Land Management, Soil Conservation Service, Department of Water Resources (Division of Safety of Dams), Reclamation Board, Coastal Commission, State Lands Commission, etc.) For each agency from which a permit is required provide the following information:

Permit type _____
Person (s) contacted _____ Agency _____
Date of contact _____ Telephone () _____

- 4. Has any public agency prepared an environmental document for any aspect of your proposed changes? NO

If so, please submit a copy of the latest environmental document (s) prepared, including a copy of the notice of determination adopted by the public agency. If not, explain below whether you expect that a public agency other than the State Water Resources Control Board will be preparing an environmental document for your change petition or whether the applicant, if it is a California public agency, will be preparing the environmental document for your change petition:

The project is categorically exempt from the California Environmental Quality Act (CEQA) in accordance with Article 19, Section 15328, Class 28. Merced ID will provide a copy of the exemption and resolution from its Board of Directors to Division staff.

Note: When completed, please submit a copy of the final environmental document (including notice of determination) or notice of exemption to the State Water Resources Control Board. Processing of your change petition cannot proceed until such documents are submitted.

5. Will your proposed changes, during construction or operation, generate waste or wastewater containing such things as sewage, industrial chemicals, metals, or agricultural chemicals, or cause erosion, turbidity or sedimentation? No If so, explain: _____

If yes or you are unsure of your answer, contact your local Regional Water Quality Control Board for the following information (See attachment for address and telephone number):

Will a waste discharge permit be required for your petition? _____
Person contacted _____ Date of contact _____
What method of treatment and disposal will be used? _____

6. Have any archeological reports been prepared on this project, or will you be preparing an archeological report to satisfy another public agency? No

Do you know of any archeological or historic sites located within the general project area?
No If so, explain: _____

ENVIRONMENTAL SETTING

7. Attach **THREE COMPLETE SETS** of color photographs, clearly dated and labeled, showing the vegetation currently existing at the following locations:

- a. Along the stream channel immediately downstream from the proposed point(s) of diversion
 - b. Along the stream channel immediately upstream from the proposed point(s) of diversion
 - c. At the place(s) where the water is to be used
- Note: It is very important that you submit no less than three complete sets of photographs as required above. If less than three sets are submitted, processing of your change petition will be delayed until you furnish the remaining sets!

8. From the list given below, mark or circle the general plant community types which best describe those which occur within you project area (Note: See footnote denoted by * under Question 11 below):

Tree Dominated Communities

- Subalpine Conifer
- Red Fir
- Lodgepole Pine
- Mixed Conifer
 - Sierran Mixed Conifer
 - White Fir
 - Klamath Mixed Conifer
- Douglas-Fir
- Jeffrey Pine
- Ponderosa Pine
- Eastside Pine
- Redwood
- Pinyon-Juniper
- Juniper
- Aspen
- Closed-Cone Pine-Cypress
- Montane Hardwood-Conifer
- Montane Hardwood
- Valley Foothill Hardwood
 - Blue Oak Woodland
 - Valley Oak Woodland
 - Coastal Oak Woodland
- Valley Foothill Hardwood-Conifer
 - Blue Oak-Digger Pine
- Eucalyptus
- Montane Riparian
- Valley Foothill Riparian
- Desert Riparian
- Palm Oasis
- Joshua Tree

Shrub Dominated Communities

- Alpine Dwarf-Shrub
- Low Sage
- Bitterbrush
- Sagebrush
- Montane Chaparral
- Mixed Chaparral
- Chamise-Redshank Chaparral
- Coastal Scrub
- Desert Succulent Shrub
- Desert Wash
- Desert Scrub
- Alkali Desert Scrub

Herbaceous Dominated Communities

- Annual Grassland
- Perennial Grassland
- Wet Meadow
- Fresh Emergent Wetland
- Saline Emergent Wetland
- Pasture

Aquatic Communities

- Riverine
- Lacustrine
- Estuarine
- Marine

Developed Communities

- Cropland
- Orchard-Vineyard
- Urban

Literature source: Mayer, K.E., and W.F. Laudenslayer, Jr., (eds). 1988. A Guide to Wildlife Habitats of California. California Department of Forestry and Fire Protection, Sacramento. 166 pp. (Note: You may view a copy of this document at our public counter at the address given

at the top of this form or you may purchase a copy by calling the California Department of Fish and Game, Wildlife Habitat Relationships (WHR) Program at (916) 653-7203).

9. Provide below an estimate of the type, number, and size (trunk/stem diameter at chest height) of trees and large shrubs that are planned to be removed or destroyed due to implementation of the proposed changes. Consider all aspects of your change petition, including changes in diversion structures, water distribution and use facilities, and changes in the place of use due to additional water development.

None.

FISH AND WILDLIFE CONCERNS

10. Identify the typical species of fish which occur in the source(s) from which you propose to divert water and discuss whether or not any of these fish species or their habitat has been or would be affected by your proposed changes. (Note: See footnote denoted by * under Question 11 below):

Trout, salmon, bass, and resident fish. There will be no effect to the fish species or their habitat as a result of this proposed change.

11. Identify the typical species of riparian and terrestrial wildlife in the area and discuss whether or not any of these species and/or their habitat has been or would be affected by your proposed changes through construction of additional water diversion and distribution works and/or changes in land use in the place of water use. (Note: See footnote denoted by * below):

As identified in this petition, no changes in the current operation are proposed. Therefore, there will be no impact to any species as a result of this petition.

Merced Irrigation District

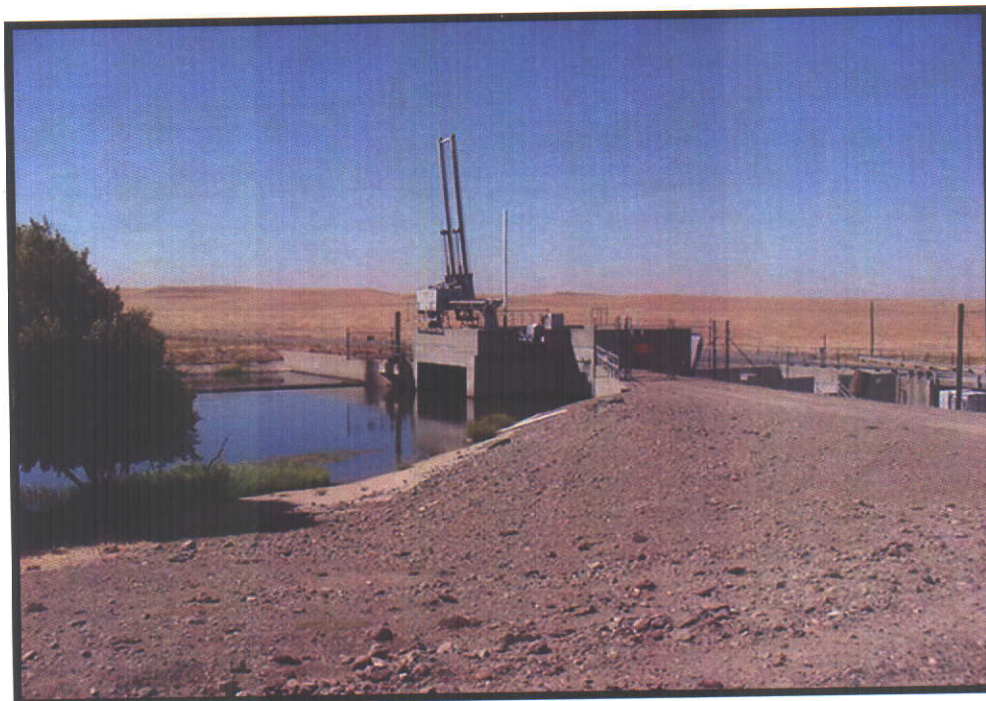
Attachment to Environmental Information for Petitions to Licenses 2685, 6047, and 11395 (Applications 1224, 10572, and 16186, respectively)

1. During the early 1980's, three small power plants were constructed on the existing conveyance facilities of Merced Irrigation District (Merced ID). These power plants, referred to as Parker, Reta, and Papazian power plants, are owned by Merced ID and the County of Merced; but are operated and maintained through a lease arrangement with Turlock Irrigation District. Merced ID is exempt from licensing these three power plants with the Federal Energy Regulatory Commission, due in part to the generating capacities shown in the table below. Power generation at these three facilities is completely incidental to the other water uses within Merced ID. There is no economic incentive to operate the power plants for power generation only. The power plants are operated only when adequate flow is being diverted into Merced ID conveyance facilities for irrigation purposes. The flow rate capacities of the power plants are equal to the capacities of the conveyance facilities at the power plant. As a result of the Division of Water Rights' 2001 compliance review, it was determined this petition was necessary to complete Merced ID's authorization for the use of water to include incidental power use under its existing water rights, Licenses 2685, 6047, and 11395 (Applications 1224, 10572, and 16186, respectively).

Power Plant	Location (MDB&M)	Generating capacity (MW)	Maximum theoretical horsepower ¹	Efficiency (%)	Flow rate at generating capacity (cfs)	Head at flow rate (ft)
Parker	Within SE 1/4 of SW 1/4 of Sec. 21, T5S, R14E	2.7	3,619	94 - 97	1,535	20
Reta	Within NE 1/4 of SE 1/4 of Sec. 36, T5S, R13E	0.9	1,206	93 - 96	450	33
Papazian	Within NW 1/4 of SE 1/4 of Sec. 34, T6S, R14E	0.9	1,206	93.5 - 96.5	450	33

¹ Maximum theoretical horsepower = Generating capacity x 1,000 / 0.746

2. The facilities for the project are existing and no county permits are required. Therefore, we have not contacted the County Planning or Public Works Departments.



1. View of the upstream side of Parker Power Plant.



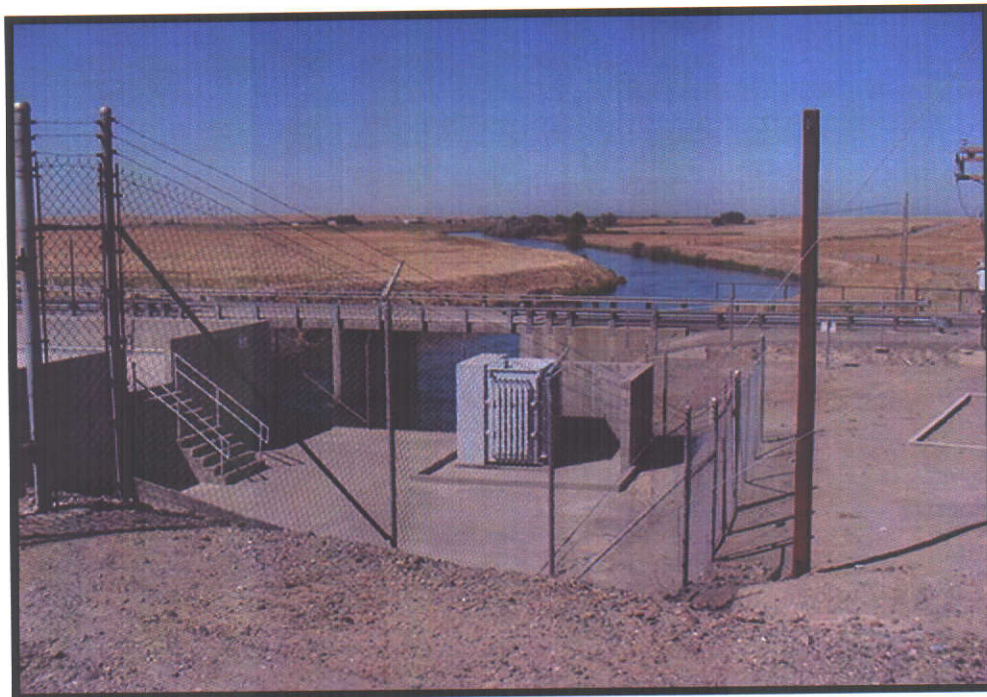
2. View upstream of Parker Power Plant, which shows the Main Canal.

Attachment to Environmental Information for Petition

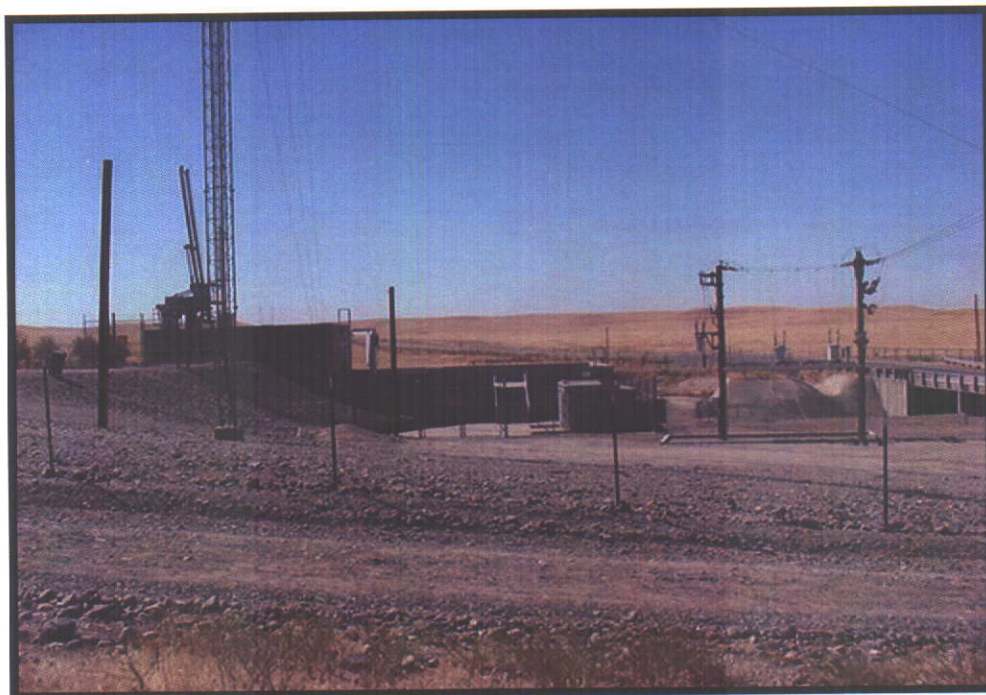
Photographer - Merced Irrigation District

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3. View from Parker Power Plant looking downstream along the Main Canal.



4. View to the south, which shows the Parker Power Plant.

Attachment to Environmental Information for Petition

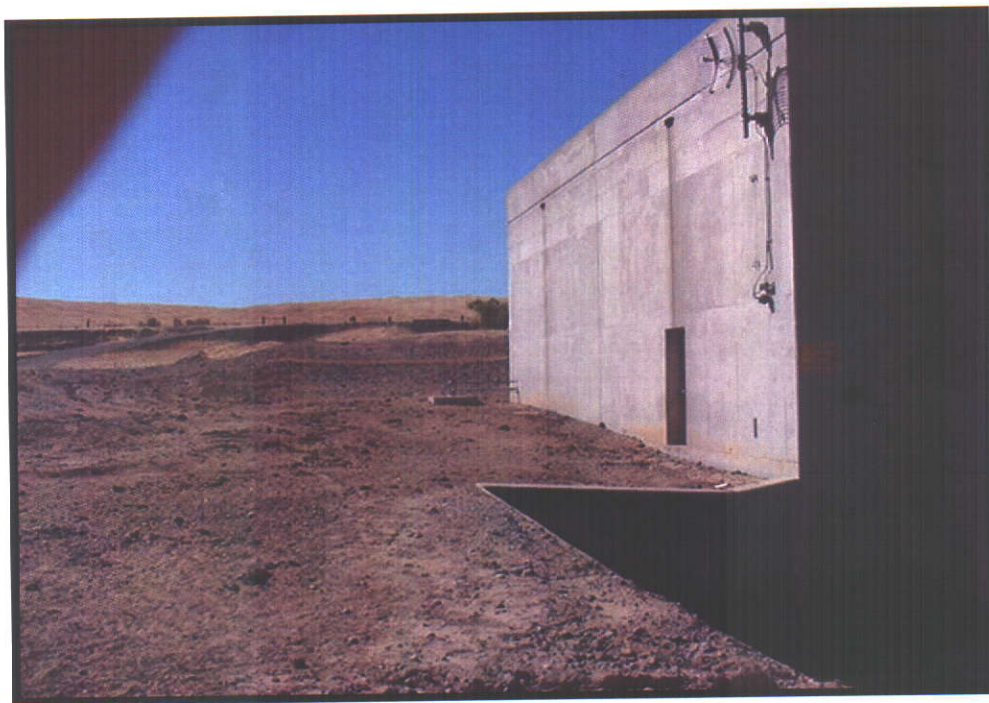
Photographer - Merced Irrigation District

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5. View downstream to Reta Power Plant on the Main Canal.



6. View upstream from Reta Power Plant toward Main Canal.

Attachment to Environmental Information for Petition

Photographer - Merced Irrigation District

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7. View downstream from Reta Power Plant.



8. View upstream along the Main Canal toward Reta Power Plant.

Attachment to Environmental Information for Petition

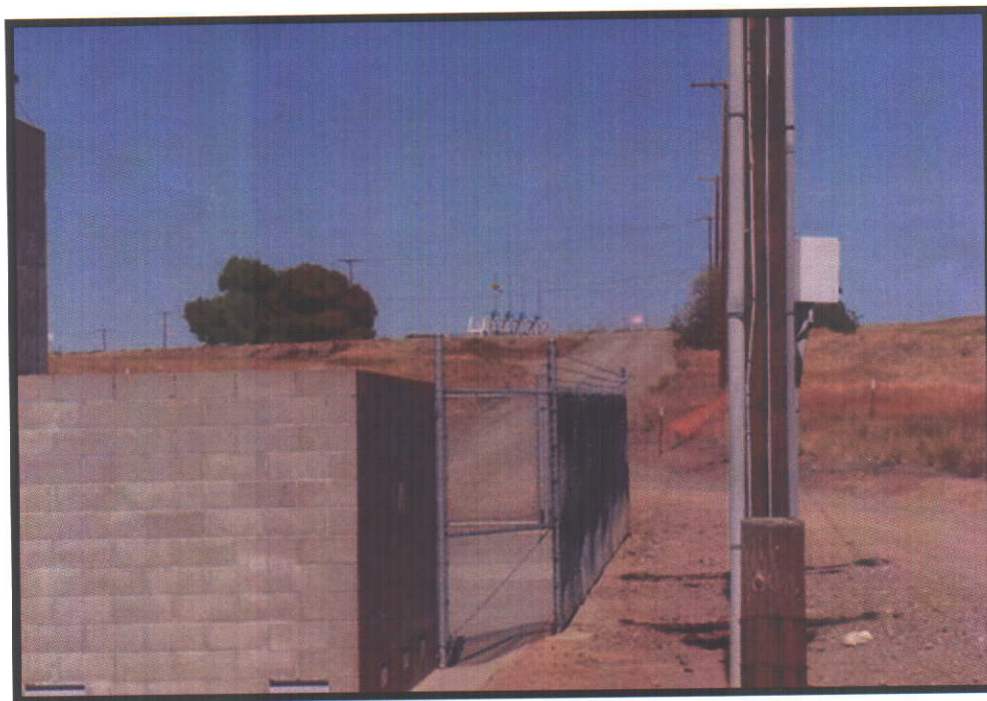
Photographer - Merced Irrigation District

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9. View downstream to Papazian Power Plant along the buried pipeline section of the Le Grand Canal.



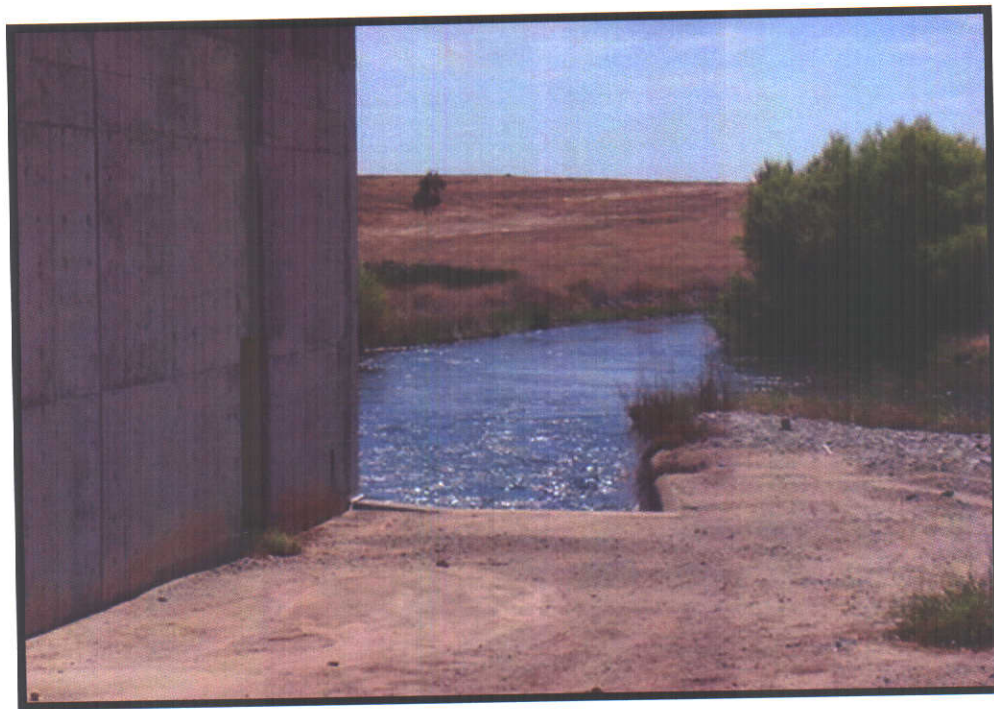
10. View upstream from Papazian Power Plant toward the buried pipeline section of the Le Grand Canal.

Attachment to Environmental Information for Petition

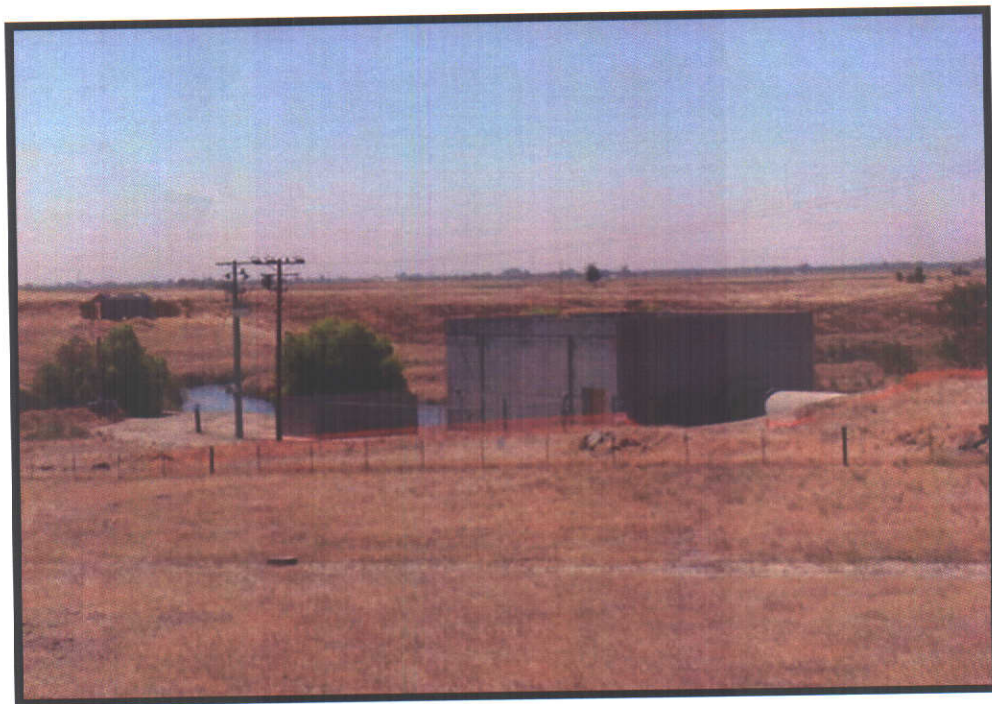
Photographer - Merced Irrigation District

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11. View from Papazian Power Plant looking downstream along the Le Grand Canal.



12. View southeast to show the Papazian Power Plant.

Attachment to Environmental Information for Petition

Photographer - Merced Irrigation District

August 2004

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