

ATTACHMENT F

COMMENTS AND RESPONSES

This attachment contains copies of all written comments received on the All-American Canal Lining draft environmental impact statement/environmental impact report prepared by the Bureau of Reclamation (Reclamation) and the Imperial Irrigation District. Each letter has been numbered. In addition, specific questions and comments requiring response have been numbered in the margin of the letter. The response to each comment, coded with the same number, is reproduced on an adjacent page.

Following the written comments and responses, a summary of oral comments from public hearings is presented. This summary includes major comments made and responses to those comments.

Summary of Written Comments

<u>Letter number</u>	<u>Name of agency or individual</u>
1	Bureau of Indian Affairs, Fort Yuma Agency
2	Bureau of Indian Affairs, Area Director
3	National Oceanic and Atmospheric Administration
3-A	National Oceanic and Atmospheric Administration, Director, Coast and Geodetic Survey
4	Bureau of Land Management, District Manager, Yuma, Arizona
5	U.S. Fish and Wildlife Service, Field Supervisor, Phoenix, Arizona
6	National Park Service, Associate Regional Director, Western Region
7	Department of the Army, U.S. Army Corps of Engineers, Los Angeles District
8	U.S. Environmental Protection Agency, Region IX, San Francisco, California
9	U.S. Department of Justice, Border Patrol, Chief Patrol Agent, El Centro, California
10	International Boundary and Water Commission, United States and Mexico, Office of the Commissioner, United States Section, El Paso, Texas
11	California Water Commission, Sacramento, California
12	Colorado River Board of California, Glendale, California
13	The Resource Agency of California, Sacramento, California
13-A	California Department of Fish and Game, Sacramento, California
13-B	California Environmental Protection Agency, Sacramento, California
13-C	California Department of Fish and Game, Sacramento, California
14	Arizona State Parks, Phoenix, Arizona
15	Arizona Game and Fish Department, Phoenix, Arizona
16	Colorado River Commission of Nevada, Las Vegas, Nevada
17	Upper Colorado River Commission, Salt Lake City, Utah
18	City of Needles, Needles, California
19	Coachella Valley Water District, Coachella, California
20	Metropolitan Water District of Southern California, Los Angeles, California

21	Board of Supervisors, Imperial County, California
22	Imperial County Department of Public Works, El Centro, California
23	Orange County Water District, Fountain Valley, California
24	American Water Resources, Inc., Colorado Springs, Colorado
25	Consulting Civil Engineers, Santa Ana, California
26	Yuma Audubon Society, Yuma, Arizona
27	Allan P. Wells, Las Vegas, Nevada

LETTER NO. 1

UNITED STATES GOVERNMENT

memorandum

DATE: SEP 19 1991

REPLY TO ATTN OF: Superintendent, Fort Yuma Agency, P. O. Box 1591, Yuma, AZ 85366-9591

SUBJECT: All American Canal Lining - Draft Environmental Impact Statement

TO: Bureau of Reclamation, LC-700, P. O. Box 427, Boulder City, NV 89005

The following are our comments on the Draft Environmental Impact Statement/Environmental Impact Report, All-American Canal Lining Project:

- 1-1
1. It is a very well written document.
 2. There was a lack of consultation with the Bureau of Indian Affairs, Fort Yuma Agency. Under the "Distribution List:"
 - A. "To be distributed by Deputy Commissioner's Office:"
 - a. Cocopah Tribe
 - b. Quechan Tribe
 - c. Bureau of Indian Affairs
 - B. "To be distributed by Regional Director, Lower Colorado Region:"
 - a. BIA, Colorado River Agency
 - b. BIA, Southern California Agency

The Cocopah Tribe and Quechan Tribe did not receive a copy of the draft until after the Fort Yuma Agency staff requested copies from the Bureau of Reclamation and provided them to the tribes. The BIA, Fort Yuma Agency, which is directly impacted by the lining because of its jurisdiction of the two tribes, is not listed on the "Distribution List."

- 1-2
3. Use of Conserved Water: The Reservation Division of the Yuma Project (2nd priority) is not listed as part of the priorities in the "Summary." All priority users are listed in Table 1 in Chapter 1.

- 1-3
4. Those who pay for the project will have use of the saved water. However, we are uncertain if the cost of the project will be passed along to those water users that divert water from the unlined portion of the All American Canal.

- 1-4
5. It is felt that the Cocopah Reservation will be directly impacted by the action. Lining the canal will result in a water savings. Once it is determined how much water will be saved, the saved water will be diverted from the Colorado River at Lake Havasu. Therefore, the same quantity of water that is currently being diverted at Imperial Dam into the All American will be cut back. Cocopah gets its water supply from ground water. We believe that much of that ground water is a result of the seepage of the All American Canal. It is our opinion that the ground water recharge will be reduced. In addition, we suspect that the salt content of the water will increase due to the lessened recharge. There are other diversions which will be made north of the Yuma area that will further reduce

Response to Letter 1

- 1-1 This oversight has been corrected.
- 1-2 The priorities listed under "Use of Conserved Water" in the summary are those priorities established by Public Law 100-675. Table I-1 in chapter I lists priorities as established by the California Seven Party Agreement of 1931. Public Law 100-675 specifies the manner in which the conserved water is to be made available for use in California.

The water lost to seepage is charged to the third priority of the California Seven Party Agreement of 1931. If this water is conserved, it could be applied to agricultural use under the third priority or made available to the fourth, fifth, or sixth priorities. The Reservation Division's second priority under California's Colorado River apportionment would be unaffected by this project.

- 1-3 Public Law 100-675 specifies that all costs associated with the project will be paid by the parties using the conserved water.
- 1-4 Project impacts to the aquifer underlying the All-American Canal are described in chapter III of the FEIS/FEIR and in the Geohydrology Appendix. Recharge of the aquifer which underlies the project area, including the Yuma Valley, will be reduced by an amount equal to the amount of water conserved. This reduction is not expected to have an adverse effect on the quantity and quality of ground water underlying the Cocopah and Fort Yuma Indian Reservations since the All-American Canal upstream of Pilot Knob, the Yuma Main Canal, its branches, and other canals of the Yuma Valley will remain unlined. Agricultural irrigation practices in the Yuma Valley and on Yuma Mesa have the major influence on ground-water quantity and quality in this area.

1-4
(CON.)

the flow of fresh Colorado River water to this area. Even though the Cocopah Reservation would be more directly impacted by the lining, the Fort Yuma Indian Reservation will suffer the same consequences to the land that is irrigated from wells.

We feel that the above issues directly impact the human environment of not only the Cocopah and Quechan Tribes, but the entire area including the citizens of Mexico.



LETTER NO. 2



United States Department of the Interior

BUREAU OF INDIAN AFFAIRS
PHOENIX AREA OFFICE
P.O. BOX 10
PHOENIX, ARIZONA 85001



IN REPLY
REFER TO:

SEP 20 1991

MEMORANDUM

To: Regional Director, Bureau of Reclamation
Lower Colorado Region
Boulder City, Nevada
ACTING

From: Area Director, Bureau of Indian Affairs
Phoenix Area Office

Subject: Review of Draft Environmental Impact Statement/
Environmental Impact Report for the Lining of the
All-American Canal, Imperial County, California

The Bureau of Indian Affairs, Phoenix Area Office has reviewed the Draft Environmental Impact Statement (EIS)/Environmental Impact Report for the proposed lining of a 23 mile reach of the All-American Canal beginning at a point approximately one mile southwest of the west boundary of the Fort Yuma (Quechan) Indian Reservation.

2-1

Environmental concerns and proposed mitigation for this reach of the canal to be lined and for the reach between drop 3 and 4 are adequately outlined in the referenced report.

However, the draft EIS/Report does not fully discuss the affects of the lowered groundwater table that will result from a reduced seepage of 67,700 acre-feet per year. This reduced seepage and continued pumping of groundwater in Mexico would cause the groundwater level within the east mesa aquifer to decline. We recommend that this issue be further addressed as well as any possible effect this could have on the groundwater table at the Fort Yuma and/or Cocopah Indian Reservations.

2-2

In Chapter VIII of the draft EIS (Consultation and Coordination), the BIA is not listed as being contacted during this process. If you are not aware, the BIA Fort Yuma Agency in Yuma, Arizona would issue any permits or rights-of-way easements for activities that cross the Fort Yuma (Quechan) Indian Reservation. Please contact their office at (619) 572-0248 for any additional information.

If you have any questions regarding the above, please contact the Phoenix Area Environmental Quality Services staff at (602) 379-6750 or FTS 261-6750 or our Water Resources Management staff at (602) 279-6956 or FTS 261-6956.

Response to Letter 2

- 2-1 Project impacts to the aquifer underlying the All-American Canal are described in chapter III of the FEIS/FEIR and in the Geohydrology Appendix. Recharge of the aquifer which underlies East Mesa will be reduced by an amount equal to the amount of water conserved. This reduction is not expected to have an adverse effect on the quality of ground water underlying the Cocopah and Fort Yuma Indian Reservations since agricultural irrigation practices in the Yuma Valley and on Yuma Mesa have the major influence on ground-water quantity and quality in this area.
- 2-2 BIA responsibilities have been added to chapter VIII, Consultation and Coordination.

Barry W. Welch

F-6

LETTER NO. 3



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
Office of the Chief Scientist
Washington, D.C. 20513

August 28, 1991

Response to Letter 3

No response required.

Mr. Joe D. Hall
Deputy Commissioner
U.S. Department of the Interior
Bureau of Reclamation
Denver, Colorado 80225-0007

Dear Mr. Hall:

Enclosed are comments on the Draft Environmental Impact Statement for the All American Canal Lining Project, Imperial County, California. Thank you for giving us an opportunity to review the document.

Sincerely,

For/
David Cottingham
Director
Ecology and Conservation Office

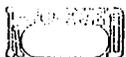
Enclosure

If you need any more plates
please contact me at



LETTER NO. 3A

AUG 14 1991



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL GEODETIC SURVEY
Coast and Geodetic Survey
Washington, D.C. 20343

AUG 8 1991

MEMORANDUM FOR: David Cottingham
Ecology and Environmental Conservation Office
Office of the Chief Scientist

FROM: *Donald J. Austin*
Rear Admiral J. Austin Yeager, NOAA
Director, Coast and Geodetic Survey

SUBJECT: DEIS 9107.06 - All American Canal Lining
Project, Imperial County, California

The subject statement has been reviewed within the areas of Coast and Geodetic Survey's (C&GS) responsibility and expertise and in terms of the impact of the proposed actions on C&GS activities and projects.

A preliminary review of C&GS records has indicated the presence of both horizontal (H) and vertical (V) geodetic control survey monuments in the proposed project area. Published printed horizontal (H) geodetic control data are provided on quadrangles 321144 and 321151 (H) for your use. Because of the large number of vertical geodetic control survey monuments affected, vertical (V) control data for the same area covered by these quadrangles are provided on computer diskette.

3A-1 [This information should be reviewed for identifying the location and designation of any geodetic control monuments that may be affected by the proposed project. If there are any planned activities which will disturb or destroy these monuments, C&GS requires not less than 90 days' notification in advance of such activities in order to plan for their relocation.

3A-2 [C&GS recommends that funding for this project include the cost of any relocation required for C&GS monuments. For further information about these monuments, please contact the National Geodetic Information Branch, N/CG17, Rockwall Building, room 20, National Geodetic Survey Division, NOAA, Rockville, Maryland 20852; telephone 301-443-8631.

Attachment

cc: N/CG1x9 - J. D'Onofrio
N/CG17 - J. Spencer

Response to Letter 3A

- 3A-1 The Coast and Geodetic Survey will be notified during preconstruction planning of any project impacts to geodetic control monuments.
- 3A-2 The cost of relocation of any impacted monuments will be included in construction costs, as now addressed under "Relocations" in chapter II.



LETTER NO. 4



United States Department of the Interior

BUREAU OF LAND MANAGEMENT
YUMA DISTRICT OFFICE
3150 WINSOR AVENUE
YUMA, ARIZONA 85365



IN REPLY REFER TO:
790 (050)

Memorandum

To: Regional Director, Bureau of Reclamation, Lower Colorado Regional Office, Boulder City, Nevada (LC-700)

From: District Manager, Yuma

Subject: Draft Environmental Impact Statement for the All-American Canal Lining Project

Thank you for the opportunity to review the Draft Environmental Impact Statement for the All-American Canal Lining Project. We support the Parallel Canal Alternative (Preferred Alternative). We would also like to offer the following suggestions:

Under the PARALLEL CANAL ALTERNATIVE:

4-1 In order to mitigate the loss of terrestrial habitat for wildlife and plants, including flat-tailed horned lizards and special species sand dune endemic plants along the All-American Canal, the old canal (outside of any regulating reservoir(s)) should be filled in and returned to original contour. The area should be revegetated using native plants along with the construction sites and roads that are no longer needed. Although returning the old canal to original contour is not mentioned in the Draft Environmental Impact Statement, it seems that earthen material removed during construction of the new parallel canal could be stockpiled and later placed in the old canal bed.

Under all ALTERNATIVES:

4-2 In order to mitigate the loss of water in the Colorado River between Parker Dam and Imperial Dam, we believe that the Bureau of Reclamation should commit to a specific backwater restoration or improvement program rather than simply stating that the project would be an "add-on increment" to an existing program (page III-27).

Under CUMULATIVE IMPACTS:

4-3 It should be stated that the cumulative impact of lining the All-American Canal, the Coachella Canal, and the full operation of the Central Arizona Project Canal, including the Hayden-Rhodes (Granite reef) and Tucson Aqueducts, would include the delivery of only the required 1.5 million acre-feet of water per year to Mexico. This would further ensure that water in the

Response to Letter 4

- 4-1 Impacts to terrestrial habitats of special status species, including the flat-tailed horned lizard and dune plants, will be mitigated prior to construction with an acre-for-acre replacement based on ecological equivalency. All areas disturbed by construction will be recontoured to match the surrounding terrain and allowed to naturally revegetate. The old canal would be retained for emergency use under an operation and maintenance plan to be developed during project design.
- 4-2 To ensure that the project does not cause adverse change to wetlands along the Colorado River, project sponsors will provide \$100,000 to fund backwater restoration and enhancement on the Colorado River between Parker Dam and Imperial Dam. Project selection and implementation will be coordinated through the Interagency Colorado River Backwater Committee and the biological work group.
- 4-3 The requirement of delivering 1.5 million acre-feet per year to Mexico is a condition of the 1944 treaty between the United States and Mexico which specifies the amount of Colorado River water to which Mexico is entitled. Between 1979 and 1993, high flows in certain years have resulted in periods when Mexico received more than the specified 1.5 million acre-feet per year. Project implementation would increase the likelihood of unscheduled releases from Hoover Dam during years when surplus water or floods occur in the river. This would result in increased flows to Mexico.

4-3
(CON.)

Colorado River bed flowing below Morelos Dam would be an extremely rare event. Because water in the Colorado River no longer reaches the Gulf of California, huge estuaries in the Colorado River delta remain dry or extremely brackish. Natural reproduction of totuava, striped mullet, and other saltwater fish would continue to be impeded; and many recreation and fishing opportunities along the entire portion of the Colorado River below Morelos Dam would continue to be precluded.

We hope these suggestions and comments will be of value when preparing the Final Environmental Impact Statement. If we can be of further assistance, feel free to contact our Planning and Environmental Coordinator Dave Curtis at FTS 761-0237.



LETTER NO. 5



UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE

ECOLOGICAL SERVICES
3616 W. Thomas, Suite 6
Phoenix, Arizona 85019

September 17, 1991

MEMORANDUM

TO: Regional Director, Bureau of Reclamation, Lower Colorado
Regional Office, Boulder City, Nevada

FROM: Acting Field Supervisor

SUBJECT: Draft Environmental Impact Statement/Draft Environmental Impact
Report for All-American Canal Lining Project, Imperial County,
California (DES 91-18)

We have reviewed the subject document and have the following comments regarding the Colorado River for your consideration.

5-1 More emphasis should be put on the loss of wetlands on the Colorado River as a result of the canal lining project. This habitat type is extremely important to the fish and wildlife resources of the river, including species on the endangered species list.

Although the loss is estimated at only 4-1/2 acres, as Federal agencies, we are to follow the President's no net loss of wetlands directive.

5-2 Therefore, we believe that the project should commit to mitigating the wetland loss by the creation or improvement of at least 10 acres of wetlands somewhere on the Lower Colorado River. This two for one mitigation ratio will compensate for the loss of the wetland during the restoration and establishment period of the new wetland. We agree with your finding that the restoration of Three Fingers Lake would be one of the more beneficial mitigation areas for this purpose.

If we can be of further assistance, please contact Ron McKinstry or Sam F. Spiller, Field Supervisor (Telephone: 602/379-4720 or FTS 261-4720).

Frank M. Baucom

cc: Regional Director, Fish and Wildlife Service, Albuquerque, New Mexico
(FWE/HC)
Director, Arizona Game and Fish Department, Phoenix, Arizona
Regional Supervisor, Arizona Game and Fish Department, Yuma, Arizona
Colorado River Coordinator, California Fish and Game Department,
Blythe, California
Field Supervisor, Laguna Niguel Field Office, Laguna Niguel, California
Refuge Manager, Cibola National Wildlife Refuge, Blythe, California

Response to Letter 5

- 5-1 The Bureau of Reclamation shares your belief that wetlands are "extremely important to fish and wildlife resources." We believe the mitigation plan described in chapter III will adequately protect this important habitat.
- 5-2 Reclamation is committed to the national policy of "no net loss of wetlands." To ensure that the project does not cause adverse change to wetlands along the Colorado River, project sponsors will provide \$100,000 to fund backwater restoration and enhancement on the Colorado River between Parker Dam and Imperial Dam. Project selection and implementation will be coordinated through the Interagency Colorado River Backwater Committee and the biological work group.

LETTER NO. 6



United States Department of the Interior

NATIONAL PARK SERVICE

WESTERN REGION
600 HARRISON STREET, SUITE 600
SAN FRANCISCO, CALIFORNIA 94107

IN REPLY REFER TO:

L7617(WR-RP)

September 11, 1991

Memorandum

To: Regional Director, Lower Colorado Region,
Bureau of Reclamation
Attention: Regional Planning and Loans Officer

From: ^{ACTING} Associate Regional Director, Resource Management
and Planning, Western Region

Subject: All American Canal Lining Project, DES-91/0018

We have reviewed the subject document and have the following comments:

The conservation of existing water and reduction of water lost from seepage in existing water systems should take precedent over developing new water sources on already overtaxed systems. The preferred alternative, for the All American Canal, appears to be the best solution, with the least damage to the environment.

6-1 [The Pilot Area of Critical Environmental Concern (ACEC) would be avoided under the preferred alternative as a result of the exceptionally high density of significant and potentially significant cultural resources within the area. We recommend that the Pilot Knob ACEC be avoided under all alternatives to avoid any potential direct or indirect impacts to significant cultural resources, including traditional cultural properties.

6-2 [The All American Canal, constructed in the 1930s, is described as potentially eligible to the National Register of Historic Places. We recommend that the significance of the All American Canal be evaluated. If found to be eligible, the preparation of Historic American Record documentation for the canal may be appropriate as part of impact mitigation.

6-3 [It seems likely that under all project alternatives construction personnel will be asked to avoid areas of cultural resource sensitivity that are adjacent to, or surrounded by, lands subject to direct project impacts. We recommend that at the conclusion of the project an evaluation be made to areas to have been

Response to Letter 6

- 6-1 The preferred alternative will avoid the Pilot Knob ACEC.
- 6-2 The old canal would be managed by IID as an emergency channel in the event of damage to the parallel canal from earthquakes or other catastrophic events. A management plan for the old canal would be prepared during the project design phase and would include the specific actions needed to maintain the old canal for the purpose of an emergency use channel.
- 6-3 Please refer to chapter VII for environmental commitments with regard to cultural resources.

6-3
(CON.) avoided in order to determine what, if any, accidental impacts resulted. The evaluation report should be coordinated with the State Historic Preservation Officer (SHPO) to determine what, if any, additional mitigation measures would be appropriate.

Thank you for giving us an opportunity to comment on this document.

W. Aspin-Douglas

LETTER NO. 7



REPLY TO
ATTENTION OF

Office of the Chief
Regulatory Branch

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
P.O. BOX 3711
LOS ANGELES, CALIFORNIA 90053-2315

August 20, 1991

Response to Letter 7

Thank you for your letter.

United States Department of the Interior
Bureau of Reclamation, Lower Colorado Regional Office
Attn: Robert J. Towles, Regional Director
P.O. Box 427
Boulder City, Nevada 89005

Gentlemen:

Reference is made to your letter of July 23, 1991 in which you inquired as to whether or not the U.S. Army Corps of Engineers has comments on the draft EIS/EIR for constructing a parallel lined canal along 23 miles of the existing unlined American Canal, lying along the international border in Imperial County, California.

Based on the information furnished in your letter (referenced above) and draft EIS/EIR, we have determined that your proposed project is not subject to our jurisdiction under Section 404 of the Clean Water Act. Therefore, no Section 404 permit is required from our office.

The receipt of your letter is appreciated. If you have any questions please contact David Zoutendyk of my staff at (619) 455-9414.

Sincerely,

A handwritten signature in cursive script that reads "Jonathan R. Freedman".

Jonathan Freedman
Chief, Southern Section

LETTER NO. 8



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 REGION IX
 75 Hawthorne Street
 San Francisco, CA 94105

October 31, 1991

Martin Einert
 Bureau of Reclamation
 Lower Colorado Region
 P.O. Box 61470
 Boulder City, NV 89006-1470

Dear Mr. Einert:

The Environmental Protection Agency (EPA) has reviewed the Draft Environmental Impact Statement/Report (DEIS) for the proposed All-American Canal Lining Project, Imperial County, California. Our enclosed comments on the proposed project and DEIS are provided pursuant to the National Environmental Policy Act (NEPA), the Council on Environmental Quality's regulations for implementing NEPA, and Section 309 of the Clean Air Act.

The Bureau of Reclamation proposes to conserve seepage along a 29.9 mile long, unlined section of the All-American Canal. Seepage loss from this stretch is estimated to be 91,000 acre feet (AF) annually, and the alternatives examined would conserve between 66.7 thousand acre feet (TAF) and 68.7 TAF per year. The Canal originates at Imperial Dam on the Colorado River and conveys water for agricultural and urban use in southern California. According to priorities established under the Colorado River water delivery contracts, water not diverted for priority agricultural users would be available for urban users served by the Metropolitan Water District of southern California. Water conserved by the proposed project would be transported by the Colorado River Aqueduct, which diverts water from Lake Havasu (Parker Dam), approximately 140 miles upriver of Imperial Dam.

In addition to the no action alternative, the DEIS examines four action alternatives: conservation along 23 miles of the Canal by construction of a new concrete-lined canal parallel to the existing canal (preferred alternative); in-place lining of 24.6 miles of the canal ("Drop 3" alternative); full (29.9 miles) in-place lining of the canal; and a well field which would recapture seepage water. Although the well field alternative is less costly and has fewer direct adverse impacts (such as drying up seepage wetlands, and habitat removal for the parallel canal), it was not selected because the wells would penetrate a groundwater aquifer supplying agriculture in Mexicali Valley, Mexico (p. II-1). However, this is not to say that other alternatives would avoid groundwater effects in Mexico; in our

detailed comments (enclosed) we have recommended additional attention to groundwater depletion in Mexico.

Generally, the EIS is a clearly written, well organized, and informative document. The Environmental Appendix to the DEIS cites involvement of Reclamation, the U.S. Fish and Wildlife Service, Bureau of Land Management, California Department of Fish and Game, Imperial Irrigation District, Coachella Irrigation District, and Metropolitan Water District of Southern California; we commend Reclamation and participating agencies for their work. As our detailed comments indicate, we do suggest that the Final EIS provide additional environmental information, particularly on potential transborder groundwater effects. Noting that there may be fewer adverse effects associated with the well field and "Drop 3" alternatives, we have rated the preferred alternative "EC"-- environmental concerns (see attached rating sheet); the DEIS has been rated "2," reflecting the request that the FEIS provide additional impact information.

We appreciate the opportunity to comment on this Draft EIS. Please send three copies of the Final EIS to this office at the time it is filed with EPA's Washington, D.C., office. If you have any questions, please call me at 415-744-1050 (FTS 484-1050) or have your staff contact Carolyn Yale at 415-744-1580 (FTS 484-1580).

Sincerely,

Deanna Wieman, Director
 Office of External Affairs

Enclosures: 4 pp.

dcn: 91-180

cc: Ray Bransfield, Fish and Wildlife Service
 Ben Koski, Bureau of Land Management

SUMMARY OF RATING DEFINITIONS AND FOLLOW-UP ACTION*

Environmental Impact of the Action

LC--Lack of Objections

The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

EC--Environmental Concerns

The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

EU--Environmental Objections

The EPA review has identified significant environmental impacts that must be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

EJ--Environmentally Unsatisfactory

The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potential unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the CEO.

Adequacy of the Impact Statement

Category 1--Adequate

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

Category 2--Insufficient Information

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

Category 3--Inadequate

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEO.

*From: EPA Manual 1640 Policy and Procedures for the Review of
Federal Actions Impacting the Environment

11/4 *
update

The potential adverse environmental impacts of most concern in this project stem from depletion of groundwater and surface water recharge resulting from reduced canal seepage, and terrestrial habitat losses along the route of the "new" lined canal planned in the preferred alternative.

Regional and international impacts of reduced groundwater and surface water recharge

Although the DEIS provides adequate detail on near-canal impacts associated with reduced seepage, we believe that there should be more consideration of regional-- including international-- effects. We recommend that the Final EIS provide more complete information on the direct and indirect effects of the proposed action on regional resources, including Mexico. Coordination and cooperation in environmental matters is a priority for the United States and Mexico. Cooperation on the use and quality of transboundary groundwater resources is a key concern to EPA.

- 8-1 1. The DEIS restricts its impact analysis to those wetland habitats in the immediate vicinity of the canal, although it also states that the water table will be lowered in a much wider area if pumping in Mexico continues at its present rate (p. III-5, Appendix p. 49); for example, a drop between 10 and 60 feet can be expected in the East Mesa area. If wetland and phreatophytic habitats exist in these areas, such a decline in the water table could be a significant impact. The Final EIS should identify and quantify (1) acres of groundwater-sensitive habitats in the East Mesa and Yuma Valley areas and (2) impacts on these habitats from lowering the water table.
- 8-2 2. Executive Order 12114 (January 4, 1979) obligates federal agencies to assess the effects of major federal actions on the physical and natural environment of a foreign nation. The Draft EIS does not describe habitats in the Mexicali Valley, nor does the Geohydrology Appendix discuss the impacts to groundwater resources in Mexico. The Final EIS should identify and quantify (1) the potential impacts of project alternatives on Mexicali Valley groundwater resources and (2) associated impacts to groundwater-sensitive habitats in the Mexicali Valley.
- EPA is aware of the difficulty of quantifying the impact on resources outside the national boundaries of the United States, as well as the diplomatic sensitivity of the proposed project because of its potential impacts on agriculture in the Mexicali Valley. We recommend that the Bureau work with the International Boundary and Water Commission, EPA, and the State Department to facilitate this task.

Response to Letter 8

- 8-1 All wetland communities projected to be impacted by the project have been evaluated in the EIS/EIR Environmental Appendix. The results of this evaluation are presented in the EIS/EIR. Ground-water sensitive habitats in the Yuma Valley are not projected to be impacted because irrigation practices in the Yuma area on both sides of the Colorado River are the dominant factors affecting ground water in that area. As a point of clarification, the discussion contained on page 49 of the Geohydrology Appendix to the draft EIS/EIR indicates a ground-water table rise of up to 60 feet from 1939 to 1960. It should be noted that much of this rise was due to seepage from the first 49 miles of the earthen Coachella Canal which was replaced with a concrete-lined canal in the early 1980's.
- 8-2 The International Boundary and Water Commission, United States Section (IBWC) has the responsibility under treaty with Mexico to develop information regarding the transboundary impacts of the AAC Lining Project, and to consult with Mexico on such impacts. IBWC is conducting a formal consultation with Mexico through diplomatic channels and has obtained Mexico's analysis of impacts in Mexico. That analysis, which is being evaluated by IBWC, has been included as an attachment to the Geohydrology Appendix, and information from that analysis is summarized in the FEIS/FEIR.
- The potential transboundary environmental impacts associated with the AAC Lining Project will be documented by IBWC, which is considering analyses by Reclamation, the Republic of Mexico, and its own geohydrologic staff. IBWC has informed Reclamation of diplomatic sensitivities of the issues involved and has advised Reclamation to refrain from including United States documentation of transboundary impacts in the AAC Lining Project FEIS/FEIR. At the conclusion of the consultation between the United States and Mexico regarding the project, IBWC's documentation on the consultation will be made public.
- Reclamation has no quantitative information on ground-water sensitive habitats in Mexico.
- 8-3 The FEIS/FEIR has been revised to include more detail concerning mitigation and monitoring plans for special status species. These discussions are in chapters III and VII under the following headings: "Wetlands Habitat Along the All-American Canal," "Wetlands Habitat Along the Colorado River," "Terrestrial Habitat," and "Special Status Species."
- 8-4 The commentor suggests that the old unlined canal be actively managed to avoid potential conflicts between its potential future uses and environmental damage. In coordination with the U.S. Fish and Wildlife Service and the Bureau of Land Management, it has been determined that the old unlined canal would not be a valuable wildlife resource, and its use for wildlife mitigation purposes would not be appropriate because of a high potential for off-road vehicle disturbance and the need to maintain the channel for emergency use, which would preclude the development of valuable wildlife habitat.

Terrestrial habitat

In establishing a new canal parallel to the existing canal, the preferred alternative would cause substantially more terrestrial habitat loss than other options. The alternative would destroy approximately 562 acres of desert scrub and 916 acres of sand dune habitat, approximately half of which would be permanently lost; natural recovery for the remainder of the area could take 30 to 50 years (DEIS, p. III-31). According to the DEIS, active mitigation for habitat losses is planned only where special status species are involved (pp. III 33-34). The DEIS lists a range of potential mitigation options, including using portions of the "old" canal bottom for habitat and transferring lands to the Bureau of Land Management (BLM) for habitat restoration and management.

We note that, largely in consideration of these impacts, the Fish and Wildlife Service identified the well field and "Drop 3" alternatives as preferable to the parallel canal alternative. If Reclamation determines to select the parallel canal alternative, it is essential to work closely with Fish and Wildlife, California Department of Fish and Game, and the BLM (which manages public lands which could serve as restoration sites) to ensure that the terrestrial habitat impacts are adequately mitigated. We recommend that the Final EIS be more specific regarding the mitigation plans which would be implemented. This discussion should cover mitigation and monitoring plans for the full range of species of concern (the DEIS does not specifically refer to habitat restoration for all of the candidate species identified in desert scrub and sand dune habitats) and the roles of responsible agencies.

8-3

Project site management

The DEIS indicates that under the preferred alternative the old, unlined canal would be left in place and portions might serve as an emergency back up for the new canal, as reservoirs, for off-road vehicle use, or for wildlife habitat (p. III-55). The DEIS clearly states that recreational uses of the area will continue and describes nearby service roads and recreational roads which provide access to the canal.

The combination of potential uses of the old canal appears to require active management to avoid conflicts between uses and environmental damage. We note that since the existing canal lacks security fences, it could be easily entered by off-road vehicles and other trespassers. We are concerned that unauthorized use of the canal could conflict with wildlife habitat areas and could impair water quality-- for example, if

The commentor is correct in that recreational uses in the area are expected to continue. As part of its recreation plan for the dunes area, BLM has designated areas for camping, parking, and staging for off-road users. However, the old unlined canal would not become one of those designated areas.

The old canal would be managed by IID as an emergency channel in the event of damage to the parallel canal from earthquakes or other catastrophic events, and this has been clarified in the FEIS/FEIR. To accomplish this, a management plan for the old canal would be prepared during the project design phase, in coordination with BLM and other affected agencies. The plan would include the specific actions needed to maintain the old canal for the specified purpose of an emergency use channel. The plan would also include the steps necessary to prohibit and discourage any public uses and activities within the channel. The implementation of the management plan would insure that the risk of inadvertent contamination of the soils in the old channel and the resulting potential degradation of surface or ground water would be insignificant.

trespassers either intentionally or inadvertently introduce vehicle oils, transmission fluids, or garbage in the canal area.

8-4 [The FEIS should provide more information on how a plan for future canal uses will be developed, and how canal management will be implemented. This discussion should consider potential security and contaminant problems and explain how these issues will be addressed by the responsible land management and law enforcement agencies.

LETTER NO. 9



U.S. Department of Justice

Immigration and Naturalization Service

Chief Patrol Agent

1111 N. Imperial Ave.
P.O. Box 60
El Centro, CA 92244

July 26, 1991

ELC 40/92-C

Regional Director
Lower Colorado Region, Bureau of Reclamation
P.O. Box 61470
Boulder City, Nevada 89006-1470

Attn: Regional Planning & Loans Officer

Dear Sir:

This letter is in response to your DEIS/DEIR which was received by my office on July 17, 1991.

Our main interest in the lining of the All American Canal or the building of a new canal is the safety factor. As you well know our officers patrol this canal on a daily basis in search of undocumented aliens that have entered or are attempting to enter the United States. To accomplish this, they drive on the canal banks and the danger of having an accident and falling into the canal is always present. There is also the danger of drowning of recreational swimmers and illegal aliens attempting to swim across the canal.

In the past years we have had one (1) Border Patrol Agent who drowned when his vehicle overturned and fell into the canal while performing his patrol duties. According to our records approximately thirty-six (36) Mexican nationals drowned while attempting to cross the All American Canal, within a span of only three years.

To make the new canal as accident free as possible we are very much in favor of the proposed casting of ridges on the concrete sides along the entire length of the project. We also suggest that non-corroding bars be installed vertically at staggered 750 foot intervals along both sides of the concrete walls. These bars could be imbedded into the concrete walls protruding approximately three and a half (3 1/2) inches from the wall, be at least one-half (1/2) inch in diameter and run the vertical height of the cast ridges.

9-1

Response to Letter 9

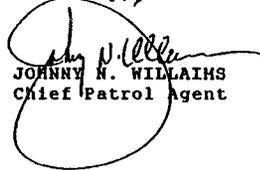
- 9-1 Additional measures to facilitate the escape of humans from the canal will be evaluated and included in the project design if escape ridges are found to be inadequate during testing.
- 9-2 As part of the interim recreation management plan, a signing program will be developed to accommodate your suggestion.

These bars would afford a person, being swept by the strong current, something substantial to hold onto. The cast ridges on the concrete wall area is a great idea, but without something to hold onto, their safety factor will be greatly diluted.

9-2 [Another suggestion would be that signs in English and Spanish as well as the international symbols be installed on both sides of the canal warning people of the dangerous waters.

If we can be of any assistance, please feel free to contact me or Paul Villanueva of my staff at (619) 352-3241, Ext. 26.

Sincerely, y



JOHNNY N. WILLIAMS
Chief Patrol Agent

LETTER NO. 10



OFFICE OF THE COMMISSIONER
UNITED STATES SECTION

INTERNATIONAL BOUNDARY AND WATER COMMISSION
UNITED STATES AND MEXICO

SEP 9 1991

Mr. Robert Towles
Regional Director
U.S. Bureau of Reclamation
Lower Colorado Region
P.O. Box 427
Boulder City, Nevada 89005

Dear Mr. Towles:

Thank you for the opportunity to review the Draft Environmental Impact Statement/Draft Environmental Impact Report (DEIS/DEIR) for the All-American Canal (AAC) Lining Project, Imperial County, California (INT DBS 91-18) filed July 9, 1991. The DEIS/DEIR addresses the significant environmental issues and evaluates environmental consequences of the proposed AAC lining project presented as five alternatives. The United States Section (U.S. Section) of the International Boundary and Water Commission (Commission) has reviewed the document and offers the following comments.

10-1 We have noted that several related projects are adequately discussed in Chapter 1, Purpose and Need, subsection Relationship to Other Projects, indicating either no conflict with or no relation to the proposed project. The U.S. Section of the Commission suggests that inclusion in this section of a discussion of the Treaty of February 3, 1944, for "Utilization of Waters of the Colorado and Tijuana Rivers and of the Rio Grande" (1944 Water Treaty) is important to emphasize that the proposed AAC lining project does not in any way impact upon treaty deliveries to the Republic of Mexico.

The two governments through the Commission jointly administer the terms of the 1944 Water Treaty relating to the Colorado River, which provides a guaranteed annual allotment of 1.5 million acre feet and any other quantities arriving at the Mexican points of diversions. The operations of these terms are performed in collaboration with the U.S. Bureau of Reclamation (Reclamation) and have been since 1950.

The procedure for ensuring that 1944 Water Treaty deliveries are made is for Mexico to present through the Commission the annual schedule of requested deliveries prior to each calendar year. These schedule requests are within the treaty annual allotment and specified rates. Mexico's requests are transmitted by the Commission to Reclamation, which makes necessary releases from upstream storage reservoirs on the Colorado River in fulfillment of the delivery schedule. The deliveries to Mexico are jointly monitored by the Commission to ensure compliance with the 1944 Water Treaty allotment and schedules.

Response to Letter 10

- 10-1 A discussion of the proposed action and its relationship to the 1944 Water Treaty with Mexico has been incorporated in chapter I under "Relationship to Other Projects."
- 10-2 The "Water Quality" section of the summary has been revised to incorporate your comment.
- 10-3 Chapter III under "Growth Inducement," explains the rationale behind the conclusion that this project would not have growth-inducing effects.
- 10-4 The suggested language has been incorporated into the FEIS/FEIR.
- 10-5 The footnote has been deleted.
- 10-6 The value has been deleted from the FEIS/FEIR.
- 10-7 The value has been deleted from the FEIS/FEIR.
- 10-8 This typographic error has been corrected.
- 10-9 The suggested language has been incorporated into the FEIS/FEIR.
- 10-10 The suggested language has been incorporated into the FEIS/FEIR.

The Commission constructs, operates and maintains all necessary gaging stations and other measuring devices within the boundary section of the Colorado River through the respective Commission Sections of the United States and Mexico. These structures are for the purpose of keeping a complete record of the waters delivered to Mexico and of the river flows downstream from Imperial Dam in the United States. A total of six gaging stations are jointly operated and maintained on the Colorado River, and five other gaging stations are operated and maintained by the Commission for 1944 Water Treaty purposes.

Thank you again for the opportunity to provide input to the DEIS/DEIR. Specific comments are attached. Should you have questions regarding our comments, please call me at 915/534-6703 or FTS: 534-6703.

Sincerely,

Conrad G. Keyes, Jr.
Conrad G. Keyes, Jr.
Principal Engineer, Planning

Attachment:
Specific Comments

SPECIFIC COMMENTS

- 10-2 [Summary, Affected Environment, Water Quality, Page S-5: Although there may in fact be no significant impacts on the quality of water in the AAC or in the Colorado River, as stated on page III-12 less flow in the river will cause a small increase in salinity in parts per million.
- 10-3 [Summary, Growth Inducement, Southern California Coastal Area, Page S-8: The use of the water provided by the project to meet projected shortages as stated on page III-73 would seem to be industry related which in turn induces growth.
- 10-4 [Summary, Consultation and Coordination, Page S-8: Revise coordination with Mexico to agree with suggested change indicated for Chapter VIII, International Coordination, Page VIII-2.
- 10-5 [Chapter I, Purpose and Need, Page I-1, footnote 2: Water is not diverted in accordance with a treaty with Mexico. Water is diverted from the Colorado River for consumptive use by IID and CVCWD. The footnote should be deleted or revised by deleting the words, "in accordance with a treaty with Mexico."
- 10-6 [Chapter III, Affected Environment, Water Table Elevation, Page III-4, 2nd paragraph, 1st sentence: Delete 500,000 AF and revise with, "Since the 1950s Mexico has pumped from the Colorado River Delta aquifer." There is no reason to state the amount since Mexico has not provided firm figures for this region.
- 10-7 [Chapter III, Parallel Canal Alternative, Permanent Impacts, Page III-13, 2nd paragraph: Delete the entire paragraph unless Reclamation is prepared to comment on the impacts of the canal lining on the LCWSP. At the least, delete reference to the volume (500,000 AF).
- 10-8 [Chapter III, Wetlands Goal, Page III-21, 1st paragraph, right column: Correct "practicable" where it is shown as a hyphenated word.
- 10-9 [Chapter III, Recreation, Page III-52, 3rd paragraph, last sentence: Revise the blanket statement blaming Mexico for pollution of the New River by, ". . . whose water constitutes a health hazard for recreation because of contamination from agricultural drains and wastewater treatment facilities in Imperial Valley and unregulated point source discharges in Mexico."
- 10-10 [Chapter VIII, International Coordination, Page VIII-2: Delete paragraph and revise with, "The United States, through the United States Section of the Commission has held consultations with Mexico regarding the lining project as stipulated in Commission Minute No. 242, Point 6. The U.S. Section has provided a copy of the DEIR/DEIS to the Mexican Section of the Commission pursuant to the ongoing United States and Mexico consultation."

LETTER NO. 11

STATE OF CALIFORNIA - THE RESOURCES AGENCY

PETE WILSON, Governor

Department of Water Resources
CALIFORNIA WATER COMMISSION
1416 NINTH STREET, ROOM 1104-4
SACRAMENTO

Martin A. Matich, Chairman - San Bernardino
James J. Lenihan, Vice Chairman - Mountain View
Herold W. Ball - La Mesa
Stanley M. Barnes - Visalia
Katherine Dunlap - Los Angeles
Clair A. Hill - Redding
James M. Stubchaer - Santa Barbara
Audrey Z. Tennis - Chico

Address Communications to:
The Chairman of the Commission
P.O. Box 942836
Sacramento, CA 94236-0001
Phone: (916) 653-5959
FAX: (916) 653-9745



Response to Letter 11

Thank you for your letter.

October 10, 1991

Robert Towles, Regional Director
Lower Colorado Region
U.S. Bureau of Reclamation
P.O. Box 427
Boulder City, Nevada 89005

Dear Mr. Towles:

The California Water Commission has reviewed the Draft Environmental Impact Statement prepared to evaluate the environmental aspects of a proposed project to control seepage from the All-American Canal. The proposed action is to "line" a 23-mile section of the Canal by constructing a concrete-lined canal parallel to the existing canal. The preferred alternative would increase the usable supply of Colorado River water for California by 67,700 acre-feet per year.

On November 17, 1988, Public Law 100-675 authorized the Secretary of the Interior to line the Canal using construction funds from the California water agencies entitled to the use of the Colorado River water. Public Law 100-675 provides that California agencies currently having contracts with the Secretary may contract with the Secretary to line the Canal.

By letter dated November 4, 1988, the Commission urged the President to sign S795 (PL 100-675). The Commission stated Title I provides the basis for settlement of a long-standing water rights dispute between the La Jolla, Rincon, San Pasqual, Pauma, and Pala Bands of Mission Indians and the communities of Vista and Escondido in San Diego County, which have used the waters of the San Luis Rey River since the turn of the century in full compliance with California Water Rights Law, as well as Federal and State permits and licenses.

Title II provides for lining of the Federal All-American and Coachella Branch canals by The Metropolitan Water District of Southern California, the Imperial Irrigation District and the Coachella Valley Water District, and/or the Palo Verde Irrigation District, at no expense to the United States and its Federal taxpayers. A portion of the water saved through reduced seepage may be used to provide water for the Indian Bands and the two San Diego County communities under provisions of Title I.

The Commission reaffirms its support of lining of the All-American Canal by local California water agencies at no expense to the United States and its Federal taxpayers. The Commission additionally reaffirms its support of the Secretary of the Interior arranging to provide a supplemental water supply of 16,000 acre-feet per year for the Indian Bands and the two San Diego County communities under the provisions of Title I.

Sincerely,

M A Matich
MARTIN A. MATICH
Chairman

LETTER NO. 12

STATE OF CALIFORNIA—THE RESOURCES AGENCY

PETE WILSON, Governor

COLORADO RIVER BOARD OF CALIFORNIA

770 FAIRMONT AVENUE, SUITE 100
GLENDALE, CA 91203-1035
(818) 543-4676
(818) 543-4685 FAX

October 1, 1991

Mr. Robert J. Towles
Regional Director
Lower Colorado Region
U.S. Bureau of Reclamation
P.O. Box 61470
Boulder City, Nevada 89006-1470

Dear Mr. ^{Bob}~~Towles~~:

The Colorado River Board appreciates receiving a copy of the Draft Environmental Impact Statement/Draft Environmental Impact Report (DEIS/DEIR) for the All-American Canal Lining Project.

The Imperial Irrigation District, a member agency of our Board and the lead agency for compliance with CEQA for the project, participated in the development of the DEIS/DEIR's conclusion that the preferred alternative be the construction of a new parallel canal. Two other member agencies of our Board that have an interest in the project, Coachella Valley Water District and The Metropolitan Water District of Southern California, have also indicated their support for the preferred alternative.

We have reviewed the DEIS/DEIR and I am enclosing several editorial comments on the attached sheet for your consideration. Thank you for the opportunity to provide comments.

Sincerely yours,

A handwritten signature in cursive script that reads "Gerald R. Zimmerman".

Gerald R. Zimmerman
Executive Director

Attachment

Comments on
Draft Environmental Impact Statement/
Draft Environmental Impact Report
for All-American Canal Lining Project

- 12-1[Page I-1. In the first sentence of the paragraph under Project Purpose, insert "a portion of the" between the words "conserved" and "water".
- 12-2[Page I-3. Second column, first full paragraph, insert "that was constructed" between the words "project" and "in".
- 12-3[Page I-4. Table 1 under priority 6(a), correct the acre-feet to read 300,000.
- 12-4[Page I-5. Last line of second column, insert "million" between "1.34" and "acre-feet".
- 12-5[Page I-7. Second column, partial paragraph, second line, insert "in California" between "parties" and "along".
- 12-6[Page II-1 and following pages. Except for the well field alternative, there is no reference to the water conserved under each of the alternatives in the main text until Chapter III. The Summary Table on p S-4 and other portions of the Summary present the water conserved by each of the alternatives; however, the main body of Chapter II should also make reference to the quantity of water conserved when discussing each of the alternatives.
- 12-7[Page II-13. The mitigation features of the Drop 3 alternative should be similar to those of the Parallel Canal alternative except for the disturbed lands of the parallel canal alternative.
- 12-8[Page IV-1. In the first sentence under the heading Colorado River, replace the words "the same" with "similar" between "have" and "effect" and change "effect" to "effects".
- 12-9[Page IV-3. Figure 9, change both "project" references to "projects".
- 12-10[Page IV-4. Table 22, for both the current and future conditions, insert "/MWD" between "IID" and "Phase".

Under water conserved by the current IID-MWD Phase I water conservation program, replace "100,000" with "106,110".
- 12-11[Page VII. Under Wetlands Habitat Along the Colorado River, any future habitat restoration work along the river should be closely monitored to assured that any enlargement of backwaters along the lower Colorado River would not significantly reduce or affect the water conservation benefit derived from the recommended project.

Response to Letter 12

- 12-1 through 12-6 These comments have been incorporated into the FEIS/FEIR.
- 12-7 The Drop 3 Alternative differs significantly from the Parallel Canal Alternative in that, under the Drop 3 Alternative, concrete would be placed underwater while the canal is still in service. This procedure potentially could affect turbidity, pH, and temperature of the canal water. Therefore, a discussion of different construction impacts is included in chapter III.
- 12-8 through 12-10 These comments have been incorporated into the FEIS/FEIR.
- 12-11 Any restoration work along the lower Colorado River will be done in such a manner as to insure no net loss of wetlands. These mitigation efforts will have no effect on the water conservation benefit derived from the project.

LETTER NO. 13

Resources Building
1416 Ninth Street
95814
(916) 445-5655
TDD (916) 524-0804

California Conservation Corps
Department of Boating and Waterways
Department of Conservation
Department of Fish and Game
Department of Forestry
and Fire Protection
Department of Parks and Recreation
Department of Water Resources

PETE WILSON
GOVERNOR OF
CALIFORNIA



THE RESOURCES AGENCY OF CALIFORNIA
SACRAMENTO, CALIFORNIA
September 20, 1991

Air Resources Board
California Coastal Commission
California Tahoe Conservancy
California Water Management
Board
Colorado River Board
of California
Energy Resources, Conservation
and Development Commission
San Francisco Bay Conservation
and Development Commission
State Coastal Conservancy
State Lands Commission
State Reclamation Board
State Water Resources Control
Board
Regional Water Quality
Control Boards

Response to Letter 13

13-1 Your comments and recommendations are appreciated.

Robert J. Towles, Regional Director
U. S. Bureau of Reclamation
Lower Colorado Regional Office
ATTN: Regional Planning and Loans Officer
P. O. Box 61470
Boulder City, NV 89006-1470

Dear Mr. Towles:

The State has reviewed the Draft Environmental Impact Statement/Environmental Impact Report, All-American Canal Lining Project, Imperial County, submitted through the Office of Planning and Research.

We coordinated review of this document with the Colorado River Basin Regional Water Quality Control Board, State Lands Commission, the Air Resources, Colorado River, and Integrated Waste Management Boards, and the Departments of Conservation, Fish and Game, Forestry and Fire Protection, Health Services, Parks and Recreation, Transportation, and Water Resources.

The Integrated Waste Management Board, and the Department of Fish and Game have provided the attached comments for your consideration.

13-1

We support the concerns of the commenting departments and request that their recommendations be carried out to offset any adverse impacts. However, we recognize that the Department of Fish and Game's suggestion to pursue the Well Field Alternative may be precluded by considerations of international law should it create ground water overdraft problems in Mexico.

The Colorado River Board of California has indicated that they will comment directly.

Robert J. Towles, Regional Director
Page Two
September 20, 1991

Thank you for providing an opportunity to review this project.

Sincerely,


for Carol Whiteside
Assistant Secretary,
Intergovernmental Relations

Attachments

cc: Imperial Irrigation District
Technical Services Department
P. O. Box 937
Imperial, CA 92251-0937

Office of Planning and Research
1400 Tenth Street
Sacramento, CA 95814
(SCH 90010472)

LETTER NO. 13A

State of California

Memorandum

To : The Honorable Douglas P. Wheeler
Secretary for Resources
Resources Agency
1416 Ninth Street
Sacramento, California 95814

Date September 17, 1991

From : Department of Fish and Game

Subject: Draft Environmental Impact Statement/Environmental Impact Report
for the All American Lining Project, U.S. Bureau of Reclamation,
Imperial County - SCH 90010472

This project proposes to construct a parallel-lined canal along 23 miles of existing unlined canal lying along the International Boundary with Mexico.

13A-1 California Department of Fish and Game favors the Wellfield Alternative over the preferred alternative of constructing the parallel-lined canal. The Wellfield Alternative would result in significantly reduced environmental impact, and the fishery impact mitigation provided by the preferred alternative is unacceptable to the Department.

13A-2 The proposed fishery impact mitigation measure involving placement of the bundles as artificial reefs on the sides of a concrete canal channel does not satisfy the Department's policy of in-kind, on-site replacement of habitat lost to project implementation. To accomplish acceptable on-site mitigation, the U.S. Bureau of Reclamation must construct, or improve existing fish habitat in sections of the existing earth-bottom canal which will be abandoned after construction of the new, parallel-lined canal. This improvement of habitat should be done using natural habitat features and should be designed to fully offset the calculated values to be lost in the abandoned facility.

13A-3 The Wellfield Alternative is far less environmentally damaging than the preferred alternative, and environmental impacts resulting from the Wellfield Alternative are satisfactorily mitigated. The cost per acre foot of water conserved is \$69 with the Wellfield Alternative compared to \$108 for the preferred alternative. Due to the extraordinarily significant impacts associated with the preferred alternative, and its lack of thoroughly adequate mitigation measures, we recommend selection of the Wellfield Alternative in lieu of the preferred alternative. Inasmuch as the Wellfield Alternative appears to be a perfectly viable alternative to the preferred alternative, we find that selection of the more environmentally sound, and less impacting, Wellfield Alternative is required by the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA). Failure to avoid impacts which are feasibly avoidable, and failure to minimize impacts which may be feasibly reduced, are both actions which are clearly not consistent with the spirit, intent, or letter of either NEPA or CEQA.

Response to Letter 13A

13A-1 Reclamation agrees that the Well Field Alternative would "result in significantly reduced environmental impact" compared to the Parallel Canal Alternative. Not selecting the Well Field Alternative was based on international considerations that weighed heavily against its selection as the preferred alternative. Also, the Well Field Alternative would be much more expensive to maintain and operate. Environmental impacts associated with the Parallel Canal Alternative would be avoided where feasible and mitigated where avoidance is not possible. The Parallel Canal Alternative offers advantages over the two in-place lining alternatives in the areas of cost and timeliness of construction, which make it Reclamation's preferred alternative.

13A-2 The proposed fishery impact mitigation was developed by the interagency biological work group (of which CDFG is a member) assembled to assess project impacts and develop mitigation for those impacts. The selection of the artificial reefs was based on scientific studies done by the Bureau of Reclamation in canals in California and Arizona. Please refer to letter 13C.

13A-3 Please see our response to comment 13A-1.

The Honorable Douglas P. Wheeler
September 17, 1991

Should the project sponsor wish to discuss these comments, he may contact Mr. Ronald Powell, Colorado River Coordinator, Department of Fish and Game, P.O. Box B-D, Blythe, California, 92226, telephone (619) 922-5613.

Howard A. Sarasohn
Pete Bontadelli
Director

cc: Mr. Ronald Powell, R5

LETTER NO. 13B
State of California

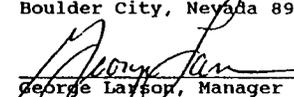
Environmental Protection Agency

M e m o r a n d u m

September 13, 1991

To: Nadell Gayou
Department of Water Resources
1416 Ninth Street, Room 449
Sacramento, California 95814

Bureau of Reclamation
P.O. Box 427
Boulder City, Nevada 89005

From: 
George Layson, Manager
Waste Generation Analysis and Environmental Assessment
Planning and Assistance Division

Subject: SCH # 90010472 - Draft Environmental Impact Statement/
Draft Environmental Impact Report (DEIS/DEIR) for the
All-American Canal Lining Project, Imperial County.

PROJECT DESCRIPTION

The Federal Bureau of Reclamation, acting as Lead Agency, in cooperation with the Imperial Irrigation and Metropolitan Water Districts of Southern California, have proposed to line a 23 mile section of the All-American Canal (AAC) by constructing a concrete-lined canal parallel to the existing All-American Canal. The project lies along a 29.9 mile section of the existing unlined AAC beginning about 6 miles west of Yuma, Arizona and end about 16 miles east of El Centro and Calexico, California.

The proposed action is intended to conserve seepage lost from the existing earthen AAC and is preferred among a group of alternatives which includes in-place lining while the canal is in service. At present, an estimated 91,600 acre-feet of water per year seep from the 29.9 mile unlined section of the AAC under study in this DEIS/DEIR.

California Integrated Waste Management Board (CIWMB) staff have reviewed the proposed DEIS/DEIR and offer the following comments:

Bureau of Reclamation

GENERAL COMMENTS

Nowhere in the DEIS/DEIR is there a discussion addressing waste generation during the construction phase nor for the completed project. In consideration of the California Environmental Quality Act (CEQA) Section 15205(c) CIWMB staff will focus comments on specific issues involving waste generation and disposal.

In order to help decision-makers identify potential impacts from construction and demolition projects, determine whether any such impacts are significant, and ascertain whether significant impacts can be mitigated to a level of insignificance, CIWMB staff request that the Final Environmental Impact Statement/Final Environmental Impact Report (FEIS/FEIR) include the following information:

- 13B-1 [o Identification of the final disposal site(s) for the proposed project's anticipated waste generation.
- 13B-2 [o Identification of the anticipated types and quantities of solid wastes to be generated upon implementation of the plan, both during construction phases and at the project completion. Please include all wastes generated which require landfilling.
- 13B-3 [o Identification of construction materials or debris capable of being recycled to the maximum extent feasible i.e. concrete, rebar, metal, cardboard, and other materials. Promote the use of insulation and other products made of recycled materials in the construction and development of the project.
- 13B-4 [o Identification of the potential impacts of these quantities on remaining landfill capacities and the calculated site-life associated thereof.
- 13B-5 [o Identify any past or present areas of unpermitted landfilling and/or dumping at the All-American Canal and how these areas will be mitigated.

Thank you for the opportunity to review and comment on this document. If you have any further questions concerning these comments, please contact Vincent Paul of the Board's Environmental Assessment Branch at (916) 327-0445.

cc: Tom Loftus
State Clearinghouse
1400 Tenth Street
Sacramento, California 95814

Response to Letter 13B

13B-1 through 13B-5 Because of the remoteness of the construction site and the minimal amount of formwork, reinforcing steel, and other such construction materials needed, the impact on existing waste sites is difficult to estimate. A plan for the disposal of wastes generated during construction will be developed in the design phase of the project. The contractor will be required to dispose of wastes in an approved manner.

LETTER NO. 13C

State of California

Memorandum

To : The Honorable Douglas P. Wheeler
Secretary for Resources
Resources Agency
1416 Ninth Street
Sacramento, California 95814

Date : December 11, 1991

From : Department of Fish and Game

Subject: Draft Environmental Impact Statement/Environmental Impact Report
for the All American Canal Lining Project, U.S. Bureau of
Reclamation, Imperial County - SCH 90010472

This project proposes to construct 23 miles of lined channel parallel to an unlined canal lying along the International Boundary with Mexico. The Department of Fish and Game (Department) commented on the project in a Memorandum dated September 17, 1991. In that memorandum, the Department issued an opinion favoring the Wellfield Alternative over the preferred alternative identified in the project documents. The memorandum stated that the proposed artificial reefs in the new channel did not satisfy the Department's policy of in-kind, on-site mitigation. Further review of the project proposal along with additional information provided by the Bureau of Reclamation has lead us to the conclusion that the proposed artificial reefs do in fact satisfy the Department's policy of in-kind, on-site mitigation.

Should the project sponsor wish to discuss these comments, he may contact Ms. Kimberly Nicol, Associate Fishery Biologist, Department of Fish and Game, 330 Golden Shore, Suite 50, Long Beach, California 90802, telephone (213) 590-5132.

Original Signed By
Howard A. Saranohn for

Pete Bontadelli
Director

cc: Ms. Kimberly Nicol
Department of Fish and Game
Long Beach, California

Mr. Ron Powell
Department of Fish and Game
Blythe, California

Mr. Dwayne Maxwell
Department of Fish and Game
Long Beach, California

Response to Letter 13C

13C-1 Thank you for your comment clarifying your views on artificial reefs.

LETTER NO. 14



**ARIZONA
STATE
PARKS**

800 W. WASHINGTON
SUITE 415
PHOENIX, ARIZONA 85007
TELEPHONE 602-542-4174

FIFE SYMINGTON
ROSENKRANTZ
GOVERNOR

STATE PARKS
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PHOENIX

M. JEAN HASSELL
STATE LAND COMMISSIONER

KENNETH E. TRAVOUS
EXECUTIVE DIRECTOR

COURTLAND NELSON
DEPUTY DIRECTOR

F-33

August 6, 1991

Robert J. Towles
Regional Director
Bureau of Reclamation
Lower Colorado Regional Office
P.O. Box 427
Boulder City, Nevada 89005

RE: All-American Canal Lining Project, DOI-BR

Dear Mr. Towles:

Thank you for sending us a copy of the draft Environmental Impact Statement (EIS) for the above project. Even though this is a very interesting project that has made national news, we respectfully decline to comment since the entire project will occur in California. If you have not done so already, we recommend that you send a copy of the draft EIS to the California SHPO.

Sincerely,

Robert E. Gasser
Compliance Coordinator

for Shereen Lerner, Ph.D.
State Historic Preservation Officer

Response to Letter 14

14-1 The California State Historic Preservation Office has been contacted during the preparation of the FEIS/FEIR, was sent a copy of the DEIS/DEIR, and will be consulted further during the design phase when results of the class III field surveys are available.

LETTER NO. 15



THE STATE OF ARIZONA

GAME & FISH DEPARTMENT

2221 West Greenway Road, Phoenix, Arizona 85023-4312 (602) 942-3000

Governor
 Fife Symington
Commissioners:
 Phillip W. Ashcroft, Eager, Chairman
 Gordon K. Whiting, Klondyke
 Larry Taylor, Yuma
 Elizabeth T. Woodin, Tucson
 Arthur Porter, Scottsdale

Director
 Duane L. Shroufe
Deputy Director
 Thomas W. Spalding

September 19, 1991

Mr. Robert J. Towles
 Regional Director
 U.S. Department of the Interior
 Bureau of Reclamation
 P.O. Box 61470
 Boulder City, Nevada 89006-1470.

Attn: Regional Planning and Loans Officer

Dear Mr. Towles:

Re: Draft Environmental Impact Statement/Draft Environmental Impact Report (DEIS/DEIR), All-American Canal Lining Project, Imperial County, California (INT DES 91-18)

The Arizona Game and Fish Department has reviewed the above-referenced environmental document, and we submit the following comments.

Our principal concern with this project, and all projects which may result in a change in the point of diversion of Colorado River water, is the effect such change will have on backwater and wetland habitats along the river. We note that the analysis of environmental effects in this document is focused on the canal alignment while the potential impacts to Colorado River resources are not mentioned in the "Summary of Principal Environmental Aspects For All-American Canal" on pages S-10 and S-11, although there is discussion of cumulative effects of water diversions in Chapter IV and elsewhere in the document.

15-1

Specific Comments By Page

Page S-3, Affected Environment and Environmental Consequences

15-2

We believe that mention of impacts to wetlands and backwaters along the Colorado River should be included in this section.

Page I-3

15-3

Will the subject project satisfy the reject stream replacement issue or could it be modified to do so?

Response to Letter 15

- 15-1 The table has been modified to address Colorado River resources.
- 15-2 A discussion of impacts to wetlands along the Colorado River has been added to the summary.
- 15-3 The reject stream replacement issue will not be satisfied by this project and is not within the scope of this project.
- 15-4 Figures for evaporation, leakage through the concrete lining, and water for mitigation were used in calculating the amount of conserved water.
- 15-5 Impacts to backwaters of the Colorado River are discussed in detail in the FEIS/FEIR Environmental Appendix.
- 15-6, 15-7 Reclamation is committed to the national policy of "no net loss of wetlands." To ensure that the project does not cause adverse change to wetlands along the Colorado River, project sponsors will provide \$100,000 to fund backwater restoration and enhancement on the Colorado River between Parker Dam and Imperial Dam. Project selection and implementation will be coordinated through the Interagency Colorado River Backwater Committee and the biological work group.
- 15-8 Escape ridge test sections have proven to be effective in the recently in-place lined section of the Coachella Canal. The Bureau of Reclamation is monitoring canals with 1-1/2:1 side slopes in southern Colorado.
- 15-9 A detailed analysis of cumulative impacts to the Colorado River is contained in the FEIS/FEIR Environmental Appendix. Your request for a copy has been accommodated.
- 15-10 Monitoring of the effectiveness of the \$100,000 program will be the responsibility of and coordinated through the Lower Colorado River Work Group—Backwater Subcommittee as part of the restoration or enhancement work done on behalf of this project.

Mr. Robert J. Towles

September 19, 1991

Mr. Robert J. Towles

September 19, 1991

Page III-3, Canal Seepage

15-4 Was evaporation subtracted out of the calculations for seepage? If not, the calculated water savings could be high.

Page III-10, Colorado River

15-5 At present, many backwaters in the Imperial Division are marginally connected to the main stream of the Colorado River. Reduction in the connectivity and water exchange can have substantial affect on the water quality of a backwater and associated aquatic value¹, particularly in backwaters impacted by 1983 high flows. For this environmental statement to adequately analyze impacts of the proposed action, this section should include an analysis of these impacts.

A program of maintenance of backwater values is needed to ensure the continued existence of backwaters in various seral stages along the Colorado River, especially in the Imperial Division.

Page III-27, Parallel Canal Alternative

15-6 As mentioned above, impacts to connectivity and maintenance of backwater values should also be addressed. The analysis of effects should include changes through the length of the river as well as through time. Maintenance of backwater values could be handled as an add on to the existing backwater work coordinated through the Lower Colorado River Management Workgroup. In general, we believe that mitigation of impacts should be done in the area impacted to ensure that recreational opportunities are maintained.

15-7 We understand that work on Three Fingers Lake would be in addition to maintenance planned to compensate for impacts from channelization of the Cibola Division, so that the value of the work would not be counted twice. If that is not the case, the work to offset impacts from the canal lining project should be accomplished elsewhere.

Page III-38

15-8 We applaud the Bureau's efforts to incorporate design features for wildlife escape into the project and are interested in the effectiveness of the slip formed ridges and 2.5:1 sideslope over time.

Page IV-2, Cumulative Impacts

15-9 We would like see more information in the document on the analysis of cumulative effects of water diversions used to arrive at the conclusions listed. If a separate report has been produced on that subject we would appreciate a copy.

Again, we mention the issue of connectivity of backwaters, the potential effect on water quality and associated aquatic resources, and the need to maintain backwater values. We note that mitigation of impacts to fish and wildlife resources from the construction of a new canal is specifically mentioned in the Act (P.L. 100-675, § 203 a.2., 102 Stat. 4006).

Summary

As mentioned earlier, our principal concern with the subject project is effects on backwater and wetland areas along the Colorado River.

15-10 Given the difficulty of forecasting actual impacts to backwater quality, we believe that the Bureau should commit to continued monitoring and assessment of impacts through the life of the project. We believe that specific commitments to offset any adverse impacts to habitat values along the Colorado River, through the life of the project, should be included in the DEIS and Environmental Commitment Plan.

We look forward to working closely with your agency on this issue. Our point of contact is Bill Werner at our Yuma Regional Office at 602-342-0091.

Sincerely,
Tom Spiller
Duane L. Shroufe
Director

DLS:WEW:wew

cc: Sam Spiller, Fish and Wildlife Service, Phoenix
Herman Kast, Bureau of Land Management, Yuma
Fred Worthley, California Department of Fish and Game
Al Goff, International Boundary and Water Commission, Yuma
Larry Voyles, Regional Supervisor, Region IV

¹ "Ecological Investigations of Backwaters Along the Lower Colorado River, David M. Kennedy and Jerry C. Tash, January 1979"

LETTER NO. 16BOB MILLER, *Governor*ROBERT L. CROWELL, *Chairman*KAREN M. GALATZ, *Vice Chairman*JACK L. STONEHOCKER, *Director*

STATE OF NEVADA

**COLORADO RIVER COMMISSION**

OF NEVADA

1515 E. Tropicana, Suite 400

Las Vegas, Nevada 89158

(702) 486-7060

Fax: (702) 486-7064

September 20, 1991

JOHN T. MORAN, JR., *Member*THOMAS A. COWARD, *Member*GARTH R. WINCKLER, *Member***Response to Letter 16**

16-1 through 16-2 See "Use of Conserved Water" discussions in the summary and chapter II of the FEIS/FEIR for revisions to this language.

Mr. Robert Towles, Regional Director
Bureau of Reclamation
Lower Colorado Regional Office
P.O. Box 61470
Boulder City, NV 89006-1470

Attn: Regional Planning and Loans Officer.

Subject: Draft Environmental Impact Statement/Environmental
Impact Report, All-American Canal Lining Project
(EIS)

Dear Mr. Towles:

Our review of the subject draft EIS concludes that the project proposal (the parallel project alternative) is a sound water conservation effort and reflects a major milestone toward the implementation of better management practices of the water resources of the Colorado River. However, the document is encumbered with inappropriate presumptions of accumulated storage of water in Lake Mead and claims thereto. Because these issues remain unresolved, we strongly recommend the following changes:

16-1

- I. Page S-3, first paragraph under "Use of the Conserved Water", first, second and third sentences: Delete the first and second sentences and insert: "The conserved water would not be diverted by IID. The water would be available for use in California during the year of salvage on the basis of entitlement." Begin a new paragraph with the third sentence.

Mr. Robert Towles
Bureau of Reclamation

September 20, 1991

16-2 [II. Page II-11, last paragraph, entitled "Use of
Conserved Water", first, second and third
sentences: Delete the first and second sentences
and insert: "The conserved water would not be
diverted by IID. The water would be available for
use in California on the basis of entitlement."
Begin a new paragraph with the third sentence.

On the condition that these changes are made to the
EIS, we fully support the project proposal as a necessary,
and overdue, water conservation effort.

Sincerely,



Jack L. Stonehocker
Director

cc: Bob Johnson, Bureau of Reclamation

F-38

LETTER NO. 17



UPPER COLORADO RIVER COMMISSION

355 South Fourth East Street • Salt Lake City • Utah 84111 • 801-531-1150 • FAX 801-531-9705

Response to Letter 17

Thank you for your letter.

September 19, 1991

Mr. Robert Towles
Regional Director
Lower Colorado Region
Bureau of Reclamation
P. O. Box 61470
Boulder City, NV 98006-1470

Dear Mr. Towles?

The Upper Colorado River Commission, on behalf of the Upper Division States, supports the general concept of increased irrigation efficiency projects in the Imperial Irrigation District area. We support this type of project to the extent that such activities provide an opportunity for the Metropolitan Water District of Southern California to maximize its use of Colorado River water while at the same time limiting California deliveries during periods of "normal" Operating Criteria conditions to 4.4 MAF.

Although Commission staff has not had an opportunity to carefully review the Draft Environmental Impact Statement/Environmental Impact Report on the proposed construction of a parallel lined canal for 23 miles that presently serves the Imperial Irrigation District, we believe that construction of such a project will be of assistance in improving the overall utilization of the waters of the Colorado River.

Sincerely,

Wayne E. Cook
Executive Director

WEC:pj

LETTER NO. 18



City of Needles

P.O. BOX 887 • 1111 BAILEY AVENUE • NEEDLES, CALIFORNIA 92363
619-326-2113

August 23, 1991

Regional Director, Lower Colorado Region
Bureau of Reclamation
P.O. Box 61470
Boulder City, Nevada 89006-1470

Attn: Regional Planning and Loans Officers

Re: Draft Environmental Impact Statement/Environmental Impact
Report (DEIS/DEIR) All-American Canal Lining Project Imperial
County, California

At a special meeting of the Needles City Council held on August
21, 1991 the following comments were approved for submission
into the record.

We have reviewed the subject DEIS/DEIR and certainly concur with
the objective of conserving about 70,000 acre-feet of water per
year. We also generally agree that the preferred alternative, a
new parallel lined canal, is the best way to achieve the stated
objective.

We do, however, have a substantial concern regarding the long
term effect of the lining on the Lower Colorado Water Supply
Project. The DEIS/DEIR basically states that lining of the
All-American Canal (AAC) was considered when the Lower Colorado
Water Supply Project was planned and the wells have been
designed to operate with a lower ground-water table. Our
endorsement of the preferred alternative is predicated upon
receiving a more detailed analysis of the long term effect of
the reduced seepage from the canal on the Lower Colorado Water
Supply Project. Most importantly, the City of Needles must be
guaranteed of the long term availability of the 10,000 acre-feet
this project is to supply to the City of Needles.

Response to Letter 18

- 18-1 An analysis of project impacts on the Lower Colorado Water Supply Project (LCWSP) may be found in chapter III of the FEIS/FEIR under "Water Quality." The LCWSP well field has been designed to accommodate the postlining decline in ground-water elevation. If pumping in the Mexicali Valley continues at historic levels, ground water of poorer quality would be expected to migrate into the well field area. Reclamation estimates that the change in water quality would not exceed 2 milligrams per liter per year after the lining is installed.

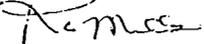
18-1

F-40

Regional Director, Lower Colorado Region
Bureau of Reclamation
August 23, 1991

The absence of these assurances would cause us to formally protest implementation of any project which may preclude us from receiving the long term water supply we have worked for years to obtain.

Sincerely,



Roy A. Mills
Mayor
City of Needles

c: Colorado River Board of California
Metropolitan Water District of Southern California
Coachella Valley Water District
Imperial Irrigation District
The Honorable Jerry Lewis, MC
Art Littleworth, Esq.

LETTER NO. 19



ESTABLISHED IN 1918 AS A PUBLIC AGENCY

COACHELLA VALLEY WATER DISTRICT

POST OFFICE BOX 1058 • COACHELLA, CALIFORNIA 92236 • TELEPHONE (619) 398-2651

DIRECTORS
TELLIS CODEKAS, PRESIDENT
RAYMOND R. RUMMONDS, VICE PRESIDENT
JOHN W. MALFACCHEN
DOROTHY M. NICHOLS
THEODORE J. FISH

OFFICERS
GENERAL MANAGER-CHIEF ENGINEER
BERNARDINE SUTTON, SECRETARY
COACHELLA COOK, ASSISTANT GENERAL MANAGER
REDWINE AND SMERRILL, ATTORNEYS

REPLY DATE
August 22, 1991

File: 0306.3155

Martin Einert
U.S. Bureau of Reclamation
Lower Colorado Regional Office
Post Office Box 427
Boulder City, Nevada 89005

Dear Mr. Einert:

This letter is in response to a Bureau of Reclamation (Bureau) request for comments on the Draft Environmental Impact Statement/Draft Environmental Impact Report (EIS/EIR) for All-American Canal Lining Project, Imperial County, California. Our comments are as follows:

- 1. The effort involved to reach the draft EIS/EIR stage in a project of this magnitude is substantial; Bureau staff should be commended for their hard work and perserverance.
- 19-1 2. In identifying 1,422 acres of wetlands between drop 3 and drop 4 for preservation, the preferred alternative in the draft EIS/EIR implicitly allocates water sufficient to sustain the wetlands. A corollary of such an implied allocation is that water will be supplied to this area without charge by the Bureau.
- 19-2 3. Because the area also exceeds 960 acres, the draft EIS/EIR also implies that whatever private (or public) trust is established to manage this area, the area will continue to have access to subsidized water and will not be subject to the 960-acre limitation.

We appreciate the opportunity to comment on this very important water conservation project.

If you have any questions or require additional information please call Robert Robinson, planning and management engineer, extension 424.

Yours very truly,

Tom Levy
Tom Levy
General Manager-Chief Engineer

TRUE CONSERVATION
WATER DISTRICT

Response to Letter 19

- 19-1 Impacts to the identified 1,422 acres of wetlands between Drops 3 and 4 are to be avoided under the preferred alternative. Water is not anticipated to be supplied since the existing seepage in this area is expected to maintain these wetlands. In the event such seepage is caused to be inadequate by the project, the Act authorizes the development of ground water, with a priority given to nonpotable sources, from public lands to supply water for fish and wildlife purposes. To the extent such water is not available, it will be provided by the participating contractor .
- 19-2 Public Law 100-675, which authorizes this project and mandates that project cost be the responsibility of the participating contractor(s), also states that the Reclamation Reform Act of 1982, which establishes the 960-acre limitation, does not apply to any agreements entered into pursuant to Title II of Public Law 100-675.

F-41

RAR:gh/e82

LETTER NO. 20

MWD

METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

September 18, 1991

Mr. Robert J. Towles
Regional Director
Lower Colorado Regional Office
U.S. Bureau of Reclamation
P.O. Box 61470
Boulder City, Nevada 89006-1470

Dear Mr. Towles:

All American Canal Lining Project
Draft Environmental Impact Statement
Environmental Impact Report

Metropolitan appreciates the opportunity to provide its comments on the All American Canal Lining Project Draft Environmental Impact Statement/Report (DEIS/DEIR) and its supporting appendices--Environmental, Geohydrology, Engineering, Public Involvement, Social, and Economics. The August 9, 1991 Federal Register indicated that comments are to be delivered to you by September 20, 1991.

20-1 As we indicated at the September 12, 1991 public hearing in El Centro, Metropolitan's staff has reviewed and considered the information contained in the DEIS/DEIR and concurs with the selection of the parallel canal from the vicinity of Pilot Knob to Drop 3 as the preferred alternative. Upon publication of the Record of Decision and subject to the approval of our Board of Directors, Metropolitan is prepared to provide the project funding should the Imperial Irrigation District (Imperial) decide to withdraw its option to become the sole participating contractor. Such a commitment would include funding for project design and construction, and implementation of mitigation measures required by Public Law 100-675.

20-2 One of the parties that commented on the DEIS/DEIR at the September 12 hearing indicated that there was no mention in the document of the rights or absence of rights of Imperial to sell conserved water under State law. Metropolitan believes that discussion of the State law issue is not an appropriate matter for inclusion in the DEIS/DEIR. Section 204 of Public Law 100-675 defines how

Response to Letter 20

20-1 The comment has been noted.
20-2 The comment has been noted.
20-3 The comment has been noted.
20-4 Table S-1 has been revised accordingly.
20-5 The FEIS/FEIR has been revised accordingly.
20-6 Table S-2 has been revised accordingly.
20-7 The FEIS/FEIR has been revised accordingly.
20-8 Table I-1 has been revised accordingly.
20-9 The FEIS/FEIR has been revised accordingly.
20-10 The FEIS/FEIR has been revised accordingly.
20-11 The FEIS/FEIR has been revised accordingly.
20-12 The FEIS/FEIR has been revised accordingly.
20-13 The FEIS/FEIR has been revised accordingly.
20-14 The FEIS/FEIR has been revised accordingly.
20-15 The FEIS/FEIR has been revised accordingly.
20-16 The FEIS/FEIR has been revised accordingly.
20-17 The FEIS/FEIR has been revised accordingly.
20-18 The FEIS/FEIR has been revised accordingly.
20-19 The FEIS/FEIR has been revised accordingly.
20-20 The FEIS/FEIR has been revised accordingly.
20-21 The FEIS/FEIR has been revised accordingly.
20-22 The FEIS/FEIR has been revised accordingly.

Mr. Robert J. Towles

September 18, 1991

the water conserved from the All American Lining Project (Project) is to be used. It states that the conserved water shall be made available for beneficial consumptive use by the Palo Verde Irrigation District, Imperial, Coachella Valley Water District, and or Metropolitan (California Contractors) within their service areas in accordance with the priorities contained in the Seven Party Agreement. If the conserved water is used by a California Contractor in excess of its proportionate share as measured by the amount of its contributed funds, such Contractor must reimburse the California Contractor(s) that participated in funding the Project for their respective contributions for the water so used.

20-2
(CON.)

Furthermore, Article 17 of the water delivery contract between Imperial and the Secretary of the Interior (Secretary) dated December 1, 1932 states that all Colorado River water delivered by the United States to Imperial for beneficial consumptive use shall be in accordance with the priorities contained in Seven Party Agreement which are incorporated in that article.

Finally, Article III(C) of the March 9, 1964 Decree of the Supreme Court of the United States in Arizona v. California (376 U.S. 340) enjoins Imperial from diverting or purporting to authorize the diversion of Colorado River water for use not specifically authorized by the United States.

Another of the parties that commented at the September 12 hearing expressed concern with respect to the potential impact that the Project might have on the Lower Colorado Water Supply Project (Supply Project). The Supply Project would pump groundwater from along the All American Canal between stations 1400+00 and 1600+00. An amount of water equal to that pumped into the canal would then be made available from the Colorado River for use by the entities in California which do not hold sufficient water rights to meet their water demands.

20-3

The DEIS/DEIR states that the Supply Project wells have been designed to accommodate the post-lining decline in groundwater elevation. The water table elevation that existed before construction of the All American Canal was 80 to 90 feet above mean sea level in the Supply Project area. The water table elevation is predicted to eventually reach about 70 feet above mean sea level after canal lining, which is far above the bottom of the perforated well casing.

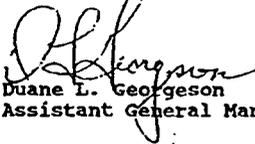
- 20-23 As stated by Reclamation staff, it was discovered that 2.6 was in hectares, not acres, and the FEIS/FEIR was corrected. The FEIS/FEIR has been revised accordingly.
- 20-24 The FEIS/FEIR has been revised to reflect total fish lost due to the parallel canal lining.
- 20-25 Imperial Irrigation District would buy the additional energy required from other suppliers of energy.
- 20-26 These estimates are based on information presented in the FEIS/FEIR Engineering Appendix. This information was incorporated in the FEIS/FEIR.
- 20-27 The FEIS/FEIR has been revised accordingly.

Mr. Robert J. Towles

September 18, 1991

Metropolitan's enclosed comments on the DEIS/DEIR and its appendices, are aimed at assisting your staff in strengthening the document. On a project of such importance to California, we believe that attention to even minor points are warranted. Any questions regarding Metropolitan's comments may be directed to John L. Scott of my staff at (213) 353-7823.

Very truly yours,



Duane L. Georgeson
Assistant General Manager

JLS:gn

Enclosure

cc: Mr. Charles L. Shreves
General Manager
Imperial Irrigation District
P.O. Box 937
Imperial, California 92251

Metropolitan Comments on
All American Canal Lining Project DEIS/DEIR

20-4 1. On page S-4 in the last line of the Table, the annual operation and maintenance increase for the Parallel Canal Alternative should be revised to read \$14,000, the same as for the In-place Alternative. See comment 8 for a more detailed explanation.

20-5 2. On page S-5, in the first paragraph's last sentence under the heading "Surface Water", delete: "during the period of April through September or about 1 percent of the average monthly flow", as 94 cubic feet per second represents the daily average reduction in flow past Parker Dam over the entire year.

20-6 3. In the tables entitled "Summary of Principal Environmental Aspects for All American Canal" on page S-11, for "Wetlands Along the All American Canal", the Drop 4 Alternative should be revised to read: "1,518 acres in wetlands complex and along the canal alignment would be lost" under the "Potential Project Impact" column in order to agree with Table 9 on page III-25.

20-7 4. On page I-2, in order to reflect Metropolitan's May 1991 forecast the last sentence of the third paragraph of the right column could read: "An estimated water shortage of 800,000 acre-feet is projected for 1991."

20-8 5. In Table 1 on page I-4, to correct a typographical error, for priority 6(a) replace "300,00" with "300,000".

20-9 6. On page I-5, in the third paragraph, "Water Delivery Contract" incorrectly infers a single all encompassing document that does not exist. The passage is referencing the priorities of the California Seven Party Agreement that is recognized in each of the California Contractors' water delivery contract with the Secretary of the Interior. Thus, the first sentence should be revised to read: "The conserved water from the All American Canal Lining Project would be made available for beneficial consumptive use by the California Contractors according to their third, fourth, fifth or six priorities shown in Table 1."

20-10 7. On page I-5, the last sentence should be revised to read: "Colorado River Aqueduct capacity is 1.34 million acre-feet per year".

20-11 8. On page II-12, in the table in the right column, the row heading "O&M, and monitoring" for Parallel Canal should be revised to read: "\$46,000" as calculated in

20-11 (CON.) Attachment 5 of the Economics Appendix. As a result the net difference for the Parallel Canal should read: "\$14,000".

20-12 9. As with the Parallel Canal alternative, the In-place alternatives would have land disturbance caused by a 10-acre concrete batch plant and three 5-acre staging areas. Therefore, on page II-13 in the right column after the second paragraph insert: "Additional land disturbances associated with construction would include a 10-acre concrete batch plant and three 5-acre staging areas, all within desert scrub community on previously disturbed lands."

20-13 10. On page II-14, in order to coordinate with comments incorporated above, the passage under the heading "Operation and Maintenance Cost" should be revised to read: "O&M costs would change as described under the Parallel Canal Alternative."

20-14 11. On page II-17, in order to provide a more complete description of the water yield from the Well Field Alternative the last sentence of the left column should be revised to read: "The amount of seepage recovered is equal to the amount of water pumped from the groundwater aquifer which would be 68,000 acre-feet annually".

20-15 12. On page II-19, in order to agree with values presented in the Table on page S-4, the first sentence should be revised to read: "Operation, maintenance, repair, and replacement (OM&R) for the Well Field is estimated to cost \$2.93 million per year".

20-16 13. On page III-5, in the sixth line of last paragraph: "Mexican Valley" should be revised to read "Mexicali Valley."

20-17 14. On page III-7, insert at the end of the second paragraph: "The portion of the canal immediately below Drop 1 that is connected to the groundwater is not expected to be affected by the well field.", for the purpose of stating the hypothesis made during analysis.

20-18 15. On page III-22, in Table 5, in order for the information contained in the DEIS/DEIR to agree with information contained on page 8 of the Wetlands section in the Environmental Appendix, the habitat value for Salt Cedar V should be revised to read: "5", the habitat value for Salt Cedar VI should read: "7", and the habitat value for Screwbean Mesquite IV should be revised to read: "9".

20-19 16. On page III-23, in Table 7, values in the second to last column should be revised to agree with Table 5 and information presented on page 8 of the Wetlands section in the Environmental Appendix. The last two columns should be revised to read as follows:

	<u>Habitat Value</u>	<u>Percent of Total Habitat Value</u>
Cottonwood/willow	743	10
Screwbean mesquite	2,458	32
Honey mesquite	56	1
Honey mesquite/salt cedar	249	3
Salt cedar	3,917	50
Arrowweed	280	4
Marsh	NA	NA
Canal Bank	NA	NA
Total	7,703	100

20-19
CON.)

20-20

17. On page III-24, in Table 8 under the heading "Parallel canal alternative", canal bank wetlands impacted by the Parallel Canal would be the same as for the Drop 3 alternative and should read: "6.0", thus, "Totals" should be revised to read: "1,428.2."

20-21

18. On page III-25, the Table 9 total habitat value "Change from existing" should be revised to read: "7,398" instead of "7,539", based on information provided in Tables 7 and 8 and page 8 of the Wetlands Section in the Environmental Appendix. Also, in the second sentence of the last paragraph replace "384" with "369" and "111" with "112" to correctly reference the values contained in Table 9.

20-22

19. On page III-32 after the last paragraph of the left column, in order to be consistent with actions proposed for the other alternatives, insert: "Lost plant life due to the construction of the Well Field would be allowed to revegetate itself."

20-23

20. On page III-42, in the first paragraph under the Parallel Canal Alternative heading, delete: "2.6 acres of drop habitat" and insert: "6.3 acres of drop habitat" in its place. The proposed parallel canal design calls for 500 feet of the existing canal from the drop structures to remain in use. Thus, there would be no reduction in drop habitat.

20-24

21. On page III-42, in the second to last paragraph and in Table 15 on page III-43, the total numbers of fish lost due to the parallel canal lining is estimated to be 97,600. It is also stated that these lost fish consist of 94,200 channel catfish, 8,000 shoreline fish, plus small numbers of other species. This adds up to over 102,000. Please clarify.

20-25

22. On page III-62, the third paragraph of the right column states that a 5.1 million kilowatt hour (kWh) decrease

20-25
(CON.)

in power production on the Colorado River due to the reduced diversions by Imperial Irrigation District would be combined with regional power demand projections, increases of which are routinely met by expansion of power generation facilities. Furthermore, the last sentence on the page states that the financial impact to the Western Area Power Administration would be met by the next periodic power rate adjustment. Considering the Well Field Alternative is estimated to consume 10.7 million kWh each year (kWh/yr), effectively reducing available power supplies by 15.8 million kWh/yr, a similar analysis should be prepared to include the reduction in power availability and consumption of power associated with this alternative.

20-26

23. In order to inform the reader of the assumptions made for the analysis discussed on page III-63, under the heading "Well Field Alternative", the last sentence should read: "This estimate is based on an assumed pump lift of 100 feet, 68,000 acre-feet per year production with no induced seepage, and an efficiency of 65 percent".

20-27

24. On page IV-4, Table 22, in order to agree with information presented on Table 2 in the Economics Appendix, the approximate reduction in power generation for the Parallel Canal Alternative should read: "220,000" kWh/yr and the total should read: "22,720,000" kWh/yr.

Metropolitan's Comments on the Environmental Appendix
of the All American Canal Lining Project Draft
Environmental Impact Statement/Environmental Impact Report

All American Canal Wetlands Section

1. In order to avoid confusing the reader the following editorial revisions would be appropriate:

a. On page 6 in the second paragraph, eighth line: "attachment 1" should be revised to read: "attachment A", and on page 8, in the first line: "attachment 2" should be revised to read "attachment B" to correctly reference the attachments at the end of the Wetlands section.

b. On the last line of page 6: "Hydrology" should read "Geohydrology" to correctly reference the Geohydrology Appendix.

2. Table 2 on page 8 assigns a habitat unit value of 1 for Arrowweed IV. Therefore, in Table 3 on page 11 there should be 233 total habitat value units for 233 acres of Arrowweed IV. Accordingly, the right two columns should be revised to read:

	<u>Total Value</u>	<u>Percent of Total Value</u>
Cottonwood/willow IV	743	10
Screwbean mesquite V	2,261	31
Honey mesquite IV	50	1
Honey mesquite/salt cedar IV	249	3
Salt cedar V	3,773	52
Arrowweed IV	<u>233</u>	<u>3</u>
Total	7,309	100

3. On page 12 in Table 5, some of the values in the second to last column are incorrectly assigned based on values in Tables 3 and 4. In order to agree with Tables 3 and 4, the last two columns should be revised to read as follows:

**Response to Comments on Environmental Appendix
AAC Wetlands Section**

1. The appendix has been revised accordingly.
2. The appendix has been revised accordingly.
3. The appendix has been revised accordingly.
4. The appendix has been revised accordingly.

AAC Aquatic Resource Section

5. The appendix has been revised accordingly.
6. The appendix has been revised accordingly.
7. The appendix has been revised accordingly.
8. The appendix has been revised accordingly.
9. The appendix has been revised accordingly.

Large Mammal Entry and Escape Steps Section

10. The appendix has been revised accordingly.

Special Status Species:
Attachment A: Biological Assessment

11. The appendix has been revised accordingly.
12. The appendix has been revised accordingly.

AAC Cumulative Impacts Section

13. The comment has been noted.
14. The comment has been noted.
15. The comment has been noted.
16. The comment has been noted.
17. The comment has been noted.
18. The comment has been noted.
19. The comment has been noted.

	<u>Total Value</u>	<u>Percent of Total Value</u>
Cottonwood/willow	743	10
Screwbean mesquite	2,458	32
Honey mesquite	56	1
Honey mesquite/salt cedar	249	3
Salt cedar	3,917	50
Arrowweed	280	4
Marsh	NA	NA
Canal Bank	NA	NA
Total	7,703	100

4. On page 17, Table 8, total habitat value under "Change From Existing" should be revised to read: "7,398" based on information provided in Tables 2, 3, 5, and 6.

All American Canal Aquatic Resources Section

5. The length of the All American Canal is 80.4 miles according to Attachment 4 of the Engineering Appendix. Therefore on page 2, in the first paragraph, first line, "82" should be revised to read: "80.4".

6. According to the "Compilations of Records in Accordance with Article V of the Decree of the Supreme Court of the United States in Arizona v. California Dated March 9, 1964", from 1981 to 1990 the All American Canal conveyed an average of 3.1 million acre-feet (maf) past Pilot Knob. Of that amount the Coachella Valley Water District diverted an average of approximately 0.36 maf or 13 percent. Therefore, in the seventh line of the first paragraph of page 2, "30 percent" should be revised to read: "13 percent".

7. On page 3 in Table 1, the total dissolved solids concentration for the date 1/07/87 should be revised to read: "692" milligrams per liter to agree with Table 4 in the DEIS/DEIR.

8. In order to avoid confusing the reader, on page 5 in the third paragraph, last line, "attachments 1 and 2" should be revised to read: "attachments A and B" to correctly reference the attachments to the Aquatics section.

9. On page 9, in the second paragraph, fourth line, "1050" should be revised to read: "104,721" to correctly reference the numbers of fish impacted by the Parallel Canal alternative as shown in Table 7 on page 19.

Large Mammal Entry and Escape Steps Section

10. In the "Overview" discussion, subparagraph "a." claims that the escape steps would be placed in the newly lined canal from the canal bottom to within 9 inches of the top of the lining. It has been generally agreed upon by the federal/state/water agency Biological Work Group and confirmed on page III-39 of the DEIS/DEIR that the lowest steps would be placed below the low canal operating water level. Thus, subparagraph "a." should be revised to read:

"Steps would be placed at 18-inch intervals on both sides of the canal from below the low canal operating water level with the highest steps placed 9 inches from the top edge of the lining."

Special Status Species Section: Attachment A: Biological Assessment

11. The length of the All American Canal under consideration for lining is 29.9 miles as stated on page I-1 of the DEIS/DEIR. Therefore on page 2 in the last paragraph, "28 mile" should be revised to read: "29.9 mile".

12. On page 35 in the first paragraph, "111 acres" should be revised to read: "112 acres" to coincide with Table 2.

All American Canal Cumulative Impacts Section

13. Metropolitan believes it is of importance to indicate that the use of Colorado River water conserved by the various projects discussed in the Cumulative Impacts section would be in accordance with the Law of the River. It is therefore appropriate that in the first paragraph of the "Preface", the last sentence should be revised to read: "The beneficial consumptive use of conserved water made available from implementation of the projects, by users that divert above Parker Dam, would be in accordance with the various Colorado River water delivery contracts held with the Secretary of the Interior. Included are the California Seven Party Agreement setting priorities to use of Colorado River water in California as well as all other laws and agreements relating to use of Colorado River water together, commonly known as the Law of the River."

14. The term "water transfer" is used throughout the Cumulative Impacts Section. The word 'transfer' suggests that an agency has the unilateral right to sell conserved

Colorado River water to other agencies outside its service area. Conserved water is to be made available only for the beneficial consumptive use in the service areas of the water agencies holding water delivery contracts with the Secretary of the Interior in accordance with the Law of the River. Therefore, revise the term "water transfer" to "proposed projects" throughout this section.

15. On page 3 in the second paragraph, third line "cooperative agreement" should be revised to read: "water conservation agreement" to more correctly convey the nature of the agreement.

16. On page 4 in Table 1, Metropolitan believes the word "exchange" is inappropriate and that footnote 1 should be revised to read: "Implementation of this program is in progress." Also footnote 2 should be omitted because it is redundant and can be misleading to the reader. It is clearly stated on the previous pages that these projects would result in reduced releases at Parker Dam. Lastly for a more definitive description, the last sentence of footnote 3 should be revised to read: "Releases from Parker Dam would be reduced in years in which flood control releases are not being made from Parker Dam."

17. The purpose of the All American Canal Cumulative Impacts study is to analyze potential environmental impacts along the Colorado River as the proposed project results in reduced releases at Parker Dam. Thus, the first sentence on page 8 should be revised to read: "The concerns which prompted this assessment are whether the reduced releases at Parker Dam will reduce river flow sufficiently to cause significant impacts."

18. The reader should be made aware that the 1988 Water Conservation Agreement between Metropolitan and IID is not a water exchange agreement. Thus, the third line of page 14 should be revised to read: "...agreements under which one of the largest of the water conservation projects is..."

19. On page 33 in the fourth paragraph, the first sentence suggests that water is transferred to Parker Dam from Imperial Dam. To avoid misleading the reader the first sentence should be revised to read: "The annual reduction of 480,000 acre-feet of water released from Parker Dam would lower the fluctuating water level by a maximum of 4 inches, as described in Part III."

Metropolitan's Comments on the Social Appendix
of the All American Canal Lining Project Draft
Environmental Impact Statement/Environmental Impact Report

1. It is apparent that some of the information contained in this appendix is dated. An example of this is that the cover is dated May 1991 while the inside title page is dated December 1990. The date on the title page should be updated.

2. On page 1, the first paragraph references a general location map that is not included in the appendix. It would be appropriate to include the referenced map to familiarize the reader with the project area.

3. The length of the All American Canal under consideration for lining is stated to be 29.9 miles on page I-1 of the DEIS/DEIR. Therefore on page 1, in the second paragraph, "28 mile" should be revised to read: "29.9 mile".

4. To correct a typographical error on page 1 in the sixth paragraph, third line, "waste" should be revised to read: "water".

5. On page 2, the third paragraph implies that construction of the Coachella Canal In-place Lining Prototype Project is in progress. As of May 1991 (the date on the Appendix cover), the contractor had completed the lining prototype and was relieved of his contractual obligations by Reclamation. Thus, the second sentence should be revised to read: "The Coachella Canal In-place Lining Prototype Project was completed in March 1991. While Reclamation has not yet determined the costs of the project, it is estimated to have cost \$9.35 million or less. The agreement calls for Reclamation to provide 40 percent of the funds while Metropolitan and the Coachella Valley Water District are providing 54 percent and 6 percent of the funds, respectively. A technical report on in-place lining is currently being prepared by Reclamation to assess whether the procedure is a viable alternative to line the All American Canal."

6. On page 2, delete the fourth and fifth paragraph entirely due to the dated information contained on the Coachella Canal In-place Lining Prototype Project, the potential conserved water yield from lining the All American

Response to Comments on Social Appendix

1. The appendix has been revised accordingly.
2. The appendix has been revised accordingly.
3. The appendix has been revised accordingly.
4. The appendix has been revised accordingly.
5. The appendix has been revised accordingly.
6. The appendix has been revised accordingly.
7. The appendix has been revised accordingly.
8. The appendix has been revised accordingly.
9. The appendix has been revised accordingly.
10. The appendix has been revised accordingly.
11. The appendix has been revised accordingly.

and Coachella Canals, and the progress of proposed legislation which has already been enacted as Public-Law 100-675.

7. The first two paragraphs on page 3 incorrectly state the purpose of the All American Canal Lining Project. The following discussion from page I-1 of the DEIS/DEIR should replace these first two paragraphs:

"The purpose of the All American Canal Lining Project is to conserve water being lost to seepage. At present, an estimated 91,600 acre-feet of water per year seep from the 29.9 mile unlined section of the All American Canal that lies between the vicinity of Pilot Knob and Drop 4. Implementation of the preferred alternative would yield approximately 67,700 acre-feet of conserved water annually."

8. The statistics regarding the population of Metropolitan's service area and population growth presented in the last two paragraphs on page 3 are dated. It is suggested that the following paragraphs, which contain updated statistics as of July 1991, should replace these last two paragraphs:

"The population in the portion of the six county southern California area where the available conserved water could be used is expected to increase from 14.9 million in 1990 (1990 census) to 18.2 million by the year 2010. The accompanying water needs are expected to increase from the current 3.7 million acre-feet annually to 4.51 million acre-feet annually, assuming normal weather conditions in Southern California.

Still higher needs can be expected in dry years when rainfall in Southern California is below normal. Presently, California is in a fifth year of a drought. An estimated water shortage of 800,000 acre-feet is projected for 1991."

9. The length of the All American Canal is 80.4 miles according to the Engineering Appendix. Thus on page 26 in footnote 1, first line, "All American Canal (82 miles)" should be revised to read: "All American Canal (80.4 miles)"

10. On page 31, in order to agree with data presented in Table 7, the last line should be revised to read: "construction to a low of 60 full-time workers required in the fifth year."

11. It has been determined that some power poles may need to be relocated to construct the proposed parallel canal. The following language from page II-10 of the DEIS/DEIR should replace the sentence on page 46 under "Relocations": "A 69-kilovolt triple wood pole powerline crosses the canal just upstream of the first Interstate 8 bridge crossing. One tower located on the east side of the canal may require relocation, depending on the exact canal alignment selected. Also, just upstream of Drop 1, powerlines cross the canal in the vicinity of where the new canal would tie in with the existing structure and certain poles for these lines would require relocation."

Metropolitan's Comments on the Geohydrology Appendix
of the All American Canal Lining Project Draft
Environmental Impact Statement/Environmental Impact Report

1. To present a more accurate picture of the extent of groundwater pumping in the Mexicali Valley, the second paragraph on page 22, third line should read: "increased up to 750,000 acre-feet."
2. On page 26, the significance of footnote 10 is not clear. Please clarify.

Response to Comments on Geohydrology Appendix

1. The appendix has been revised accordingly.
2. The appendix has been revised accordingly.

Metropolitan's Comments on the Public Involvement Appendix
of the All American Canal Lining Project Draft
Environmental Impact Statement/Environmental Impact Report

1. It is apparent that some of the information contained in this appendix is dated. An example of this is that the cover is dated May 1991 while the inside title page is dated March 1990. The date on the title page should be updated.

2. With respect to the text following "Introduction":

a. The first paragraph references a general location map that is not included in the appendix. It would be appropriate to include the referenced map to familiarize the reader with the project area.

b. The length of the All American Canal under consideration for lining is stated to be 29.9 miles on page I-1 of the DEIS/DEIR. Therefore in the second paragraph, "28 mile" should be revised to read: "29.9 mile".

c. To correct a typographical error in the sixth paragraph, in the third line, "waste" should be revised to read: "water".

d. The ninth paragraph implies that construction of the Coachella Canal In-place Lining Prototype Project is in progress. As of May 1991 (the date on the Appendix cover) the contractor had completed the prototype lining and was relieved of duty by Reclamation. Thus, the second sentence should be revised to read: "The Coachella Canal In-place Lining Prototype Project was completed in March 1991. While Reclamation has not yet determined the costs of the project, it is estimated to have cost \$9.35 million or less. The agreement calls for Reclamation to provide 40 percent of the total funds while Metropolitan and the Coachella Valley Water District are providing 54 percent and 6 percent of the funds, respectively. A technical report on in-place lining is currently being prepared by Reclamation to assess whether the procedure is a viable alternative to line the All American Canal."

Response to Comments on Public Involvement Appendix

1. The appendix has been revised accordingly.
2. The appendix has been revised accordingly.
3. The appendix has been revised accordingly.
4. The appendix has been revised accordingly.

e. The tenth and eleventh paragraphs should be deleted entirely due to the dated information contained on the Coachella Canal In-place Lining Prototype Project, the conserved water yield from lining the All American and Coachella Canals, and the progress of proposed legislation which has already been enacted as Public-Law 100-675.

f. To complete the list of events relating to the All American Canal Lining Project study the following language should be inserted at the end of the "Introduction" section:

"As planning continued, the parallel canal was chosen as the preferred alternative over in-place lining to Drop 3. Briefly, the reasons for choosing the parallel canal alternative are as follows: (1) the costs are less, (2) the seepage through the narrower parallel lining is less, (3) the evaporation from a narrower channel is less, (4) the construction would be by conventional methods that are well established, (5) the time required for construction is better known, (6) the construction would not interrupt the year-round operation of the canal, and (7) the abandoned canal could be used as a conveyance channel in case of emergency."

3. With respect to the text following "Need for Action":

a. The first two paragraphs incorrectly state the purpose of the All American Canal Lining Project. The following discussion from page I-1 of the DEIS/DEIR should replace these first two paragraphs:

"The purpose of the All American Canal Lining Project is to conserve water being lost to seepage. At present, an estimated 91,600 acre-feet of water per year seep from the 29.9 mile unlined section of the All American Canal that lies between the vicinity of Pilot Knob and Drop 4. Implementation of the preferred alternative would yield approximately 67,700 acre-feet of conserved water annually."

b. The statistics regarding the population of Metropolitan's service area and population growth presented in the last two paragraphs are dated. It is suggested that the following paragraphs, which contain updated statistics as of July 1991, should replace these last two paragraphs:

"The population in the portion of the six county southern California area where the available conserved water could be used is expected to increase from 14.9 million in 1990 (1990 census) to 18.2 million by the year 2010. The accompanying water needs are expected to increase from the current 3.7 million acre-feet annually to 4.51 million acre-feet annually, assuming normal weather conditions in Southern California.

Still higher needs can be expected in dry years when rainfall in Southern California is below normal. Presently, California is in a fifth year of a drought. An estimated water shortage of 800,000 acre-feet is projected for 1991.

4. With respect to the text following "Future Public Involvement" (PI) "Activities", the dates regarding the release and public hearings on the All American Canal Lining Project Environmental Impact Statement/Report (EIS/EIR) should be revised to read:

<u>PI Activity</u>	<u>Target Date</u>
File Draft EIS/EIR with the Environmental Protection Agency (EPA)	July 1991
Notice of Public Hearing on Draft EIS/EIR	July 1991
Public Hearing on Draft EIS/EIR	September, 1991
Incorporate Written Comments into EIS/EIR	September to November 1991
File Final EIS/EIR with EPA	December 1991
Public Notice of Availability of Final EIS/EIR	December 1991
Record of Decision	January 1992

Metropolitan's Comments on the Economics Appendix
of the All American Canal Lining Project Draft
Environmental Impact Statement/Environmental Impact Report

1. The Table of Contents references a general location map that is not included in the appendix. It would be appropriate to include the referenced map to familiarize the reader with the project area. Also, the cover is dated May 1991 while the inside title page is dated March 1991. The title page should be updated.
2. The amount of water conserved by the Parallel Canal Alternative has been incorrectly stated. Therefore, in the third paragraph on page 1, the last sentence should be revised to read: "Seepage reduction would be 66,700 acre-feet per year for Alternative 1, 68,700 acre-feet per year for Alternative 2, and 67,700 acre-feet per year for Alternative 3."
3. The last paragraph on page 1 incorrectly states the preferred alternative. The last paragraph should be revised to read:

"The preferred plan is Alternative 3, a new parallel canal from the vicinity of Pilot Knob to Drop 3. This alternative is expected to conserve 67,700 acre-feet per year at a total construction cost of \$85.5 million, including mitigation, with an increase in annual canal operation and maintenance cost of \$14,000. The parallel canal is the most cost effective of the alternatives in terms of equivalent annual cost per acre-foot of water conserved."
4. Metropolitan believes it is important to indicate that the conserved water would be made available for beneficial consumptive use in accordance with Public Law 100-675. Thus, on page 2 under "Area of Impact", the first paragraph should begin: "According to the proposed plan, water conserved by the reduction of seepage would be made available for consumptive use within the Palo Verde Irrigation District, Imperial Irrigation District, the Coachella Valley Water District, and/or The Metropolitan Water District of Southern California (MWD) (California Contractors) in accordance with the priorities contained in the Secretary of the Interior's water delivery contracts. Although it is anticipated that the conserved water will be used in MWD's service area, the Environmental Impact Statement/Report (EIS/EIR) addresses impacts only within the project area".

Response to Comments on Economics Appendix

Initial working papers were made available to project sponsor(s) discussing economics. A determination was made by Reclamation and project sponsor(s) that an economics appendix was inappropriate for the FEIS/FEIR

5. Metropolitan believes that it is important to indicate that the proposed project is to be funded entirely by one or more of the California Contractors. Therefore, the financial analysis which would apply to a federally funded project would not necessarily apply to a non-federally funded project. Thus, the first paragraph on page 3 should be revised to read:

"The plan formulation analysis includes interest during construction using a discount rate of 8 percent for the first fiscal year. An interest charge is accounted to recognize that funds which are being expended during construction would presumably be growing in value in an alternate investment opportunity. While this is a standard assumption for financial analysis for federal projects it should be noted that construction funding would be provided by a California Contractor. Metropolitan, which is actively proposing to provide such funding, would, under the no project condition, expend funds to obtain an alternative water supply, or not collect revenue from water sales as the project would not be undertaken."

6. To correct a typographical error on page 3 in the second paragraph, "nor" in the first line should be revised to read: "or".

7. On page 3 in the last paragraph, on page 5 in the last paragraph, and on page 7, it is stated that the evaluation of the marginal cost to replace lost hydroelectric energy generation on the All American Canal and along the Colorado River was based on a rate of 89 mills per kilowatthour (kWh) without adequate justification. Considering that 55 mills was used in evaluating energy costs of the Well Field Alternative presented in the DEIS/DEIR, one of these values should be revised.

8. On page 4, Table 1 is not consistent with page S-4 of the DEIS/DEIR. Table 1 should be revised as presented on the following page.

9. The discussion regarding lost hydroelectric energy along the All American Canal should reference the parallel canal as the preferred alternative. Also, to put the analysis in perspective, it should be stated that an idealized canal operation was assumed. Therefore, on page 5 the first paragraph should be revised to read:

Table 1 - All American Canal (AAC)
Alternative Plans to Reduce AAC Water Seepage

	Drop 3 Alternative	Drop 4 Alternative	Parallel
Water conserved annually (acre-feet)	66,700	68,700	67,700
Construction cost including mitigation (\$)	105,412,000	137,618,000	85,500,000
Interest during construction (\$)	4,216,000	5,504,000	3,420,000
Total investment costs (\$)	109,628,000	143,122,000	88,920,000
Annual cost per acre-foot of water conserved (\$)	135	171	108
Annual cost for operation maintenance, replacement, and monitoring with project (\$)	279,000	291,000	279,000
Annual cost for operation maintenance, replacement, without the project (\$)	265,000	265,000	265,000
Increase in annual cost for operation, maintenance, and replacement with the project (\$)	14,000	26,000	14,000
Increase in annual cost for operation, maintenance, and replacement with the project per acre-foot of water conserved (\$)	0.21	0.38	0.21

"The reduction in energy generation by the hydroelectric power plants along the AAC is shown on Table 2 for each alternative. The preferred plan is Alternative 3, a parallel canal from the vicinity of Pilot Knob to Drop 3. For this plan, the estimated reduction of hydroelectric energy generation could be 220,000 kilowatthours (kWh) per year. The annual economic impact could be \$19,580. For in-place lining to Drop 3 and in-place lining to Drop 4, the economic impact could be \$14,952 and \$23,763 respectively. It should be noted that these values are based on an idealized operation of the AAC for energy production. In reality, the operating head fluctuates as the watermaster utilizes the limited regulating capacity of the AAC to store the water. It is also common practice to bypass a portion of the canal flow around the turbines at the drop structures. Thus, actual impacts to hydroelectric energy generation would be less."

10. On page 6 in Table 2, the total hydroelectric energy reduction for the Parallel Canal Alternative should add to 220,000 kWh. Also, revise footnote 2 to provide a more descriptive explanation of the assumptions that were used in developing Table 2 as follows:

"The rationale for the hydroelectric energy loss along the AAC is that conserved water in any reach would not be passed through the Drop structures upstream. For example, the parallel canal would conserve 47,900 acre-feet upstream of Drop 1. Thus, the remaining amount of water to be conserved downstream of Drop 1, 19,800 acre-feet, would no longer flow through Drop 1. Flows through Drop 4 remain unchanged as the reaches below it remain unlined. For the in-place lining to Drop 4 it is assumed the water required to maintain the wetland mitigation site, an amount approximately equal to that conserved by lining the reach between Drop 3 and Drop 4, would still pass through Drop 3 so it can be delivered to the site. Thus, the flow through Drop 3 would not change."

11. Attachments 1 and 2 contain information that are dated and should be omitted.
12. Attachment 3 contains project cost computations that do not agree with values presented on page S-4 in the

DEIS/DEIR. The calculations used to obtain the results presented in the DEIS/DEIR should be included here.

13. Attachment 5 uses a discount rate of 8.75 percent in calculating annual operation, maintenance, replacement, and monitoring costs associated with the project when page S-4 of the DEIS/DEIR says 8 percent is used. Attachment 5 should be revised to use 8 percent.

Metropolitan's Comments on the Engineering Appendix
of the All American Canal Lining Project Draft
Environmental Impact Statement/Environmental Impact Report

1. The title page is dated November 1990 while the cover is dated May 1991. The title page should be updated.

2. Table 1 is entitled "Original All American Canal Prism Data", but states the original side slopes to be 1:1. According to the original profile and section drawings contained in Attachment 4 of this Appendix the original side slopes were 2:1, however, due to erosion the existing side slopes are near to 1:1.

3. The last paragraph on page 6 discusses the reasoning behind starting the Parallel Canal at station 1254+00. Thus, there would be no need to include a design for drainage structures upstream of this station to be tied into the new proposed canal. Therefore, delete the last sentence of this paragraph.

4. On page 14, the last complete sentence, "The geotextile will also allow hydrostatic water pressure between the concrete and the polyvinyl chloride layer (PVC) to be relieved when the water surface is drawn down by allowing water to flow from joints formed in the concrete panels." should be deleted. It was disclosed during the Reclamation sponsored In-place Canal Lining Workshop held May 8-9, 1989 in Palm Springs, California, that tests indicated that the freshly laid concrete intrudes the voids between the fibers which causes the finished product to become impermeable. Also, the hydrostatic pressure is due to the moist soil on the underside of the PVC. The PVC layer effectively impedes flow to the geotextile and the concrete cover. Accordingly, the following sentence should be deleted also.

5. The Coachella Canal In-place Lining Prototype Project, as discussed at the In-place Lining Workshop, used 30 mil PVC and the same is proposed for the All American Canal in-place alternative. Therefore on page 20 in the second line, "60-mil" should be revised to read: "30-mil".

6. As discussed at the In-place Lining Workshop, it has been established that the in-place lining process can only be performed when water velocities are at or below 3.1 feet per second (ft/s). Therefore on page 20, after the last sentence

Response to Comments on Engineering Appendix

1. The appendix has been revised accordingly.
2. The appendix has been revised accordingly.
3. The appendix has been revised accordingly.
4. The appendix has been revised accordingly.
5. The appendix has been revised accordingly.
6. The appendix has been revised accordingly.
7. The appendix has been revised accordingly.
8. The appendix has been revised accordingly.
9. The appendix has been revised accordingly.
10. The appendix has been revised accordingly.
11. The appendix has been revised accordingly.

of the second paragraph, insert: "For a flow of 5,000 cfs, the velocity is 3.1 ft/s if two machines are used and 2.6 ft/s if three machines are used. In order to avoid erosion of the freshly laid concrete, velocities must be kept at or below 3.1 ft/s."

7. On page 20 in the last paragraph, delete the second and third sentences. Grooves placed in the concrete protective cover would have no effect on hydrostatic pressures that would be exerted on the underside of the PVC. The PVC is impermeable and will not allow water to pass to the grooves.

8. On page 28, in order to agree with the control schedule contained in Table 6, the second to last sentence should be revised to read: "The total construction cost is estimated to be \$85,489,631; a total of \$7,222,500 would be spent on preconstruction activities, and \$78,267,131 would be spent on construction and construction management. The cost of mitigation features are included."

9. On page 35, Table 10 is vague in its presentation of the projected increased operation and maintenance cost. The costs of mitigation work items does not coincide with results of the referenced Economics Appendix. As a result the ensuing total values do not coincide with any of the values listed in the Summary of the DEIS/DEIR. The portion of the table under "Mitigation Work Items" should be deleted and a new Table 11 should be added in the form that appears on the following page.

10. In Attachment 6 the cost analysis for the Well Field alternative uses a power rate of 55 mills per kWh and a demand charge of \$2.15 per horsepower (hp) per month. As of September 8, 1991, Imperial's power rate for agricultural pumping is 55 mills per kWh with a demand charge of \$2.88 per hp per month. The demand charge is based on the rated hp that is connected and not intended use as assumed on page 2 of the analysis. In the interest of accuracy the annual power cost should be recalculated by multiplying the revised demand charge by the rated hp that would be necessary to have 25 pumps on line each with a capacity of 7 cfs. It may also be prudent to note that the agricultural rate may not apply if the water could be, indirectly, a source for municipal and industrial uses. In addition, Metropolitan believes that replacing the pumps every 17 years is optimistic. The pumps now being used in Imperial's tailwater pumpback systems are scheduled to be replaced every 12 years. Considering that the proposed wells along the All American Canal will have to overcome considerably more head, it would be appropriate to

Table 11 - All American Canal
Increase in O&M for the Alternative Plans

	Drop 3 Alternative	Drop 4 Alternative	Parallel
Cost for operation maintenance, replacement, of lined canal (\$)	233,000	233,000	233,000
Annual cost for operation maintenance, replacement, and monitoring with project mitigation (\$) [1]	46,000	58,000	46,000
Annual cost for operation maintenance, replacement, and monitoring with project (\$)	279,000	291,000	279,000
Annual cost for operation maintenance, replacement, without project (\$)	265,000	265,000	265,000
Increase in annual cost for operation, maintenance, and replacement with the project (\$)	14,000	26,000	14,000

[1] See Economics Appendix for detailed analysis.

recalculate the costs based on at least a 12-year replacement schedule.

11. On page 3, 4, and 5 of Attachment 6, the factors used in the cost analysis were quoted to be referenced from Attachment A. Attachment A is not included in this Appendix. Thus, it would be appropriate to provide it so the reader could easily verify the factors used.

JLSCOMMENT

LETTER NO. 21

DISTRICT 1
WAYNE J. VAN DE GRAAFF
923 HEFFERNAN AVE., CALEXICO, CA 92231

DISTRICT 2
BILL COLE
836 W. MAIN ST., EL CENTRO, CA 92243

DISTRICT 3
JAMES M. BUCHER
940 W. MAIN ST., EL CENTRO, CA 92243

DISTRICT 4
ANE F. SEABOLT
P. O. BOX 1385, BRAWLEY, CA 92227

DISTRICT 5
SAM SHARP
660 OLIVE AVE., HOLTVILLE, CA 92250

LINDA K. WEAVER
CLERK OF THE BOARD

COUNTY ADMINISTRATION CENTER
940 W. MAIN STREET, #212
EL CENTRO, CA 92243-2811
TELEPHONE: (619) 439-4220
FAX: (619) 352-7876

Board of Supervisors
County of Imperial

September 6, 1991

Regional Director
Lower Colorado Region Bureau of Reclamation
(Attention: Regional Planning and Loans Officer)
P.O. Box 61470
Boulder City, Nevada 89006-1470

Dear Director:

We appreciate the opportunity to provide comments on the Draft Environmental Impact Statement/Draft Environmental Impact Report for All-American Canal Lining Project, in Imperial County. The Department offers the following comments:

- 21-1
 - o We concur with the statements made in Chapter III of the EIS/EIR regarding sand and gravel supplies. If the project is implemented, it is suggested that contractors and subcontractors be advised of the need to contact BLM and the Planning Department prior to the removal of any sand and gravel to be used for the project.
- 21-2
 - o The EIS/EIR seems to assume that the potential for a major earthquake damaging the canal is very remote. The EIS/EIR does not consider the possibility of a major earthquake damaging the concrete canal nor flooding, damage to crops and loss of water to the Imperial Valley as a result of such a catastrophe. The document should in addition discuss in detail construction and/or engineering design and any other measures that would help to mitigate such concerns. It is suggested that a copy of the document be sent to the State Geologist and to the Mining and Geology Board for their review.
- 21-3
 - o According to the EIS/EIR, the reduction in power generation as a result of the preferred alternative is projected to be less than two-tenths of a percent of the total power generated by All American Canal water. The document should however discuss in more detail how the reduction may translate into rate increases for IID

F-61

Response to Letter 21

- 21-1 All necessary permits for the removal of sand and gravel will be secured by contractors and subcontractors as prescribed by existing statutes and regulations.
- 21-2 An earthquake analysis appears in the FEIS/FEIR Engineering Appendix. The analysis details the possible consequences of an earthquake damaging the canal. Case studies for both vigorous ground shaking and fault movement are analyzed. Predicted damages would not interrupt the delivery of water or result in a breach causing a significant spill. Furthermore, the abandoned canal will be managed as an emergency channel for use in case of catastrophic failure of the concrete Parallel Canal. Copies of the EIS/EIR were sent to the State Clearinghouse which distributed copies to the appropriate State agencies.
- 21-3 The gains in operating efficiency resulting from lining the canal and planned improvements in operating procedures are expected to offset any predicted reduction in power generation. Compensation to Imperial Irrigation District and Coachella Valley Water District for the financial impacts of reduced power generation would be contingent on negotiations with the user of the conserved water.
- 21-4 Title to the All-American Canal and its associated drop structures is retained by the Federal Government. Title to the power generation facilities associated with the canal in the project area is retained by Imperial Irrigation District. Imperial Irrigation District manages and operates the All-American Canal and its associated facilities.

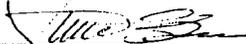
21-3
(CON.)

power consumers, cumulative effects and mitigations measures. It is further suggested that a copy of the document be sent to the Public Utilities Commission for their review.

21-4

- o The EIR/EIS should clearly indicate that the All American Canal and all related structures are controlled and owned by all of the people of Imperial County and, managed by the Imperial Irrigation District and not by landowners, or any other entity other than the people of Imperial County.

If you have any questions, please contact Jurg Heuberger, Planning Director at (619) 339-4236.



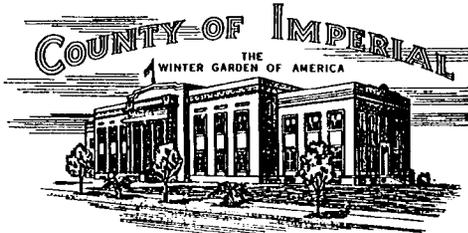
JAMES BUCHER, CHAIRMAN
BOARD OF SUPERVISORS
COUNTY OF IMPERIAL

cc: Supervisor Bucher, District 3
Supervisor Cole, District 2
Supervisor Seabolt, District 4
Supervisor Sharp, District 5
Supervisor Van De Graaff, District 1
Clerk of the Board, Linda Weaver
Joanne L. Yeager, Assistant County Counsel
Rich Inman, County Administrative Officer
10.104/10.105/10.106/10.109/BOR FILE

"The Largest Irrigated District in the World"

LETTER NO. 22

S. HARRY ORFANOS
DIRECTOR OF PUBLIC WORKS
COUNTY ROAD COMMISSIONER
COUNTY SURVEYOR
COUNTY ENGINEER



TELEPHONE
619-339-4462

September 13, 1991

DEPARTMENT OF PUBLIC WORKS
155 SOUTH 11TH STREET
EL CENTRO, CALIFORNIA 92243-2853

Mr. Robert J. Towles, Regional Director
Lower Colorado Region Bureau of Reclamation
P.O. Box 61470
Boulder City, Nevada 90006-1470

Attention: Regional Planning and Loan Officer

**SUBJECT: Draft Environmental Impact Report/Draft
Environmental Impact Statement For The All American
Canal Lining Project Imperial County, CA.**

Dear Mr. Towles:

Thank you for the recent opportunity to review and comment on the above mentioned documents. This office has reviewed the documents in question and offers the following comments:

- 22-1 [1. It is felt that the impact of a seismic event on the various alternatives should be discussed. As you are aware Imperial County is crisscrossed with geologic faults which can produce seismic events anywhere from 3.0 to in excess of 7.0 on the Richter scale.
- 22-2 [2. It is felt that in the document, discussion should be provided that covers the effect that the preferred alternative would have on the groundwater quality. It is felt that as pumping in Mexico draws down the basin in the United States the groundwater quality will be impacted. It may be prudent to discuss this possibility.
- 22-3 [3. On page 36 of the document, it is indicated that the non-action alternative will result in 91,600 acre feet of water being lost. However, on page S-4, it is indicated that through conservation 68,000 acre feet of water could be saved. The question is where are the other 23,000 acre feet being lost? One would hope conservation methods are more effective than this.

Response to Letter 22

- 22-1 An earthquake analysis appears in the FEIS/FEIR Engineering Appendix. The analysis details the possible consequences of an earthquake damaging the canal. Case studies for both vigorous ground shaking and fault movement are analyzed. Predicted damages would not interrupt the delivery of water or result in a breach causing a significant spill. Furthermore, the abandoned canal will be managed as an emergency channel for use in case of catastrophic failure of the concrete Parallel Canal. Copies of the EIS/EIR were sent to the State Clearinghouse which distributed copies to the appropriate State agencies.
- 22-2 Impacts to ground-water quality and quantity are discussed in chapter III of the FEIS/FEIR.
- 22-3 Table III-2 presents water conserved for each alternative. The 23,000 acre-feet of water includes leakage through the lining, water lost to evaporation, and water, if any, required for mitigation.

Mr. Robert J. Towles

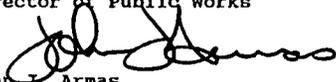
September 13, 1991

Thank you again for the opportunity to comment on these documents, should you have any questions regarding these comments, please do not hesitate to contact our office.

Sincerely yours,

S. HARRY ORFANOS
Director of Public Works

BY:


John J. Armas
Assistant Director of Public Works

sp

LETTER NO. 23

Directors

PHILIP L. ANTHONY
KATHRYN L. BARR
WILLIAM D. EHRLI
JOHN V. FONLEY
JOHN GARTHE
DONN HALL
LAWRENCE P. KRAEMER JR.
GEORGE OSBORNE
LANGDON W. OWEN
NOBLE J. WAITE



ORANGE COUNTY WATER DISTRICT

Officers

LANGDON W. OWEN
President
KATHRYN L. BARR
First Vice President
PHILIP L. ANTHONY
Second Vice President
WILLIAM R. MILLS JR.
General Manager
MARY E. JOHNSON
District Secretary
CLARK IDE
Director-Council

Response to Letter 23

Thank you for your letter.

July 24, 1991

Regional Director
Lower Colorado Region Bureau of Reclamation
P. O. Box 61470
Boulder City, Nevada 89006-1470

ATTENTION: Regional Planning and Loans Officer

SUBJECT: Draft EIS/Draft EIR for All-American Canal Lining Project

This is in response to your request for any comments we may have on the subject report. The report describes a project, which will line a 23-mile section of the All-American Canal by constructing a concrete-lined canal parallel to the existing All-American Canal. The purpose of the project is to conserve water that is currently lost through seepage of the existing unlined canal, and that nearly 70,000 acre-feet per year would be saved. Staff is aware that this project has been under review for many years, and believes that it is a highly desirable project that should be completed. The water that will be conserved would be most welcomed for beneficial use in California, whether it is in the Imperial Valley area or some other area of the state.

Very truly yours,


Nereus Richardson
Assistant Manager/District Engineer

NR:rd

LETTER NO. 24



American Water Resources, Inc.

2502 W. COLORADO AVENUE, SUITE 201
 COLORADO SPRINGS, COLORADO 80904

Phone: ~~49~~ 633-6969
 619-352-5888

TO: United States Department of the Interior 9/9/91
 Bureau of Reclamation
 Imperial Irrigation District

FROM: Thomas C. Havens, President
 American Water Resources, Inc.

SUBJ: DRAFT ENVIRONMENTAL IMPACT STATEMENT/ENVIRONMENTAL IMPACT REPORT
ALL-AMERICAN CANAL LINING PROJECT, IMPERIAL COUNTY, CALIFORNIA

As an advocate for Imperial Valley for 10 years, I must strongly object to this report. I do not think it is competent, fair, accurate or complete.

Recommendation:

24-1 Since the people of Imperial Valley are not informed on this matter and do not understand the adverse consequences they would incur, I strongly suggest an educational-awareness effort to make all the options known and that all the people of Imperial Valley vote on this critical matter which could determine their future.

Conclusion:

The Draft document is not a competent report. It is not complete, fair or accurate. It is clear that the Public Interest of Imperial Valley is not a consideration. Education must occur and then an informed public can vote in June 1992.

I am upset and disappointed that no mention of State Law is made. Without a full and balanced exploration, this cannot be considered a competent report. This Draft would essentially 100% support the MWD position. This is not fair and it is not the best path to follow. It may be clear that the IID has not represented itself well; but, I believe the wisdom of the public would balance the equation.

24-2 California State Water Law is well written and foresighted and should be followed. The Department of the Interior agrees. In a letter dated August 5, 1986, the Assistant Secretary of the Interior for Water and Science, Joseph T. Findaro, wrote the Coachella District a letter on interior policy on water conservation. A portion of that letter states:

This administration's policy firmly establishes that the primacy of water allocation, management and utilization rests with the States. Determination of beneficial use of water is also based on State law. Consequently, we believe that the entities within the State of California, working together within State laws, can reach reasonable decisions pertaining to Colorado River water usage.

Water transfers and exchanges, particularly of water realized from

Response to Letter 24

- 24-1 Public meetings were held in both the Imperial Valley and the Yuma Valley to allow for public comment on this project. Copies of the DEIS/DEIR were distributed to local libraries for public review and comment. Copies were also made available to State, local, and Federal agencies and elected congressional and State legislature representatives for review and comment.
- 24-2 The water conserved by the project will be available for use in accordance with Public Law 100-675 and the priorities established in the Seven Party Agreement. Use of the conserved water is discussed in the summary and in chapter I of the FEIS/FEIR. See attachment A to the final EIS/EIR.
- 24-3 The amount of decline in the water table and the rate at which decline takes place would be dependent on the rate of aquifer recharge and the rate at which water is pumped from it.
- 24-4 Public Law 100-675, enacted on November 17, 1988, mandates that all funding for the project come from one or more of the "California Contractors," which are defined as "Palo Verde Irrigation District, Imperial Irrigation District, Coachella Valley Water District, and the Metropolitan Water District of Southern California."
- 24-5 Please see response 24-1.

conservation and innovative management initiatives, can greatly benefit communities heavily dependent on agriculture. Conserved water can be put to beneficial use while maintaining existing agricultural benefits, thus, the benefits remain with the communities and those who effected the savings. It should be noted that State water law provides procedures for the protection of third party interests.

We have no desire to foster ghost towns in the West nor exacerbate the already strained economic stability of either the agricultural community or the smaller American communities that depend largely upon this agricultural base. However, the Department of the Interior does desire to facilitate those actions which promote and encourage better water conservation and efficiency.

The late Charles J. Meyers, one of the Nation's great water attorneys, represented the Valley for two years, until his death. His 70 page opinion regarding a proposed transfer of conserved water by the Imperial Irrigation District should be followed. I believe it will stand as the way of the future. Notwithstanding the fact that the IID has not aggressively pursued its best interest; I believe it now can and will be based on awareness of options and a public vote. Would anyone object to the right of the public to be informed and to vote?

David Osias wrote the Elmore Brief 2-21-84, Section XII, THE IID MAY TRANSFER OR SELL CONSERVED WATER, Page 57, is instructive:

The Seven Party Agreement, from which the priorities section of the Contract was incorporated, is an agreement by and between California entities to be performed in California. California law applies in interpreting the term "beneficial use" as used in the Seven Party Agreement. California Civil Code Section 1646. Because the Seven Party Agreement was incorporated into the Contract, California law also governs the interpretation of the term "beneficial use" as used in the Contract. Additionally, the concept of beneficial use, as used in reclamation law, was intended to be governed by state law. See United States v. Alpine Land & Reservoir Co., 697 F.2d 95, 1894 (9th Cir. 1983) U.S. appeal pending. ("While there were provisions of federal law which were intended to displace state law...beneficial use itself was intended to be governed by state law.") Because the Contract was made pursuant to the reclamation law, the term "beneficial use" as used in the statute and in the Contract is interpreted under state law. Beneficial use under California law includes the sale or transfer of conserved water. (See discussion, infra.)

Therefore, the IID's sale or transfer of conserved water is a beneficial use of the water. If the IID sells or transfers conserved water to implement improvements in the IID's irrigation system, such sale or transfer would be a beneficial use of the water reasonably required for irrigation and related purposes within the district. The IID is therefore entitled to sell or transfer conserved water in order to improve its irrigation system.

Moreover, the right to sell or transfer conserved water is a right given to the IID under state law.

24-2
(CON.)

The IID's priorities under the Seven Party Agreement are for "beneficial consumptive use," and are not restricted to potable and irrigational uses within the district. The priorities of Palo Verde and Yuma, for example, are confined to use within a specified area. The omission of a requirement that the water be used within the IID for irrigational purposes is significant, and indicates there is no such requirement in the Seven Party Agreement. Rather, the only restriction on the IID's right to water under the Seven Party Agreement and the priorities section of the Contract is to use the water for beneficial use. Beneficial use includes the transfer or sale of conserved water under state law. The transfer or sale of conserved water is not inconsistent with the priorities set forth in the Seven Party Agreement or in the Contract. For these reasons, the IID may transfer or sell conserved water pursuant to the Contract, and the IID does not have to secure the approval of the other parties to the Seven Party Agreement.

My analysis indicates the best, fastest, most efficient, cheapest and least environmentally damaging alternative is a seepage recovery well field. I disagree with your selection and don't believe the facts support your position.

The Imperial Valley deserves a full explanation and their rights must be clearly explained. Unbiased. For example, page S-5, second paragraph:

The preferred alternative would reduce seepage from the canal by approximately 67,700 acre-feet per year. This would allow the ground-water level under the canal upstream of Drop 3 to decline, and would reduce one source of ground-water recharge for the Mexicali Valley. If pumping in Mexico continues at the current rate, it would cause the ground water under the canal to decline to a greater depth than prior operation of the canal, and would ultimately withdraw water from under the East Mesa of Imperial County.

24-3

Does this mean that Mexico will empty all the water under the East Mesa and then sue the IID. Obviously the liability falls on IID and all the benefits go to MWD. Now is the time to explain and made clear what is going on to all the people.

It is clear that IID is timid and lacks a positive approach and does not represent the best interest of Imperial Valley. It is only fair that this problem be fixed. IID should maintain LOCAL CONTROL and should receive a FAIR SHARE of the benefits of its conserved water. At the minimum, they should be fully protected from all liability KNOWN AND UNKNOWN.

On page S-3, third paragraph: "MWD has expressed interest in funding the project in return for the use of the conserved water..." Clearly, IID could do this under State Law, maintain local control and create protection and benefits for all of Imperial Valley, thus insuring its future.

24-4

I am shocked that as of August 2, the Department of the Interior had no more funds for this project and stopped work. I am more shocked that IID agreed to bail out the Federal Government and pay the costs. This is a clear example of confused priorities and acting against the best interest of all the citizens of Imperial Valley.

24-2
(CON.)

U.S. Dept. of Interior

24-5 I demand that an outside review be made of this report and that the LAW is clearly stated and all options are MORE FAIRLY AND COMPLETELY represented. As are others in Imperial Valley, I am disgusted that major institutions including the Federal Government would willingly take advantage of the Imperial Valley. They have a right to know. They are not aware and no deals should be made until they are; and until they are represented by professionals who understand water laws and the BIG PICTURE. Without this representation, the IID and citizens of Imperial Valley are not even benefiting from their natural rights of life, liberty, property and the pursuit of happiness. For a whole variety of reasons, these rights must be understood and respected. NOW IS THE TIME FOR CLARIFICATION AND UNDERSTANDING. Then and only then can Imperial Valley make these critical decisions.

Thomas C. Havens, President
AMERICAN WATER RESOURCES, INC.
2502 West Colorado Avenue, Suite 201
Colorado Springs, Colorado 80904
Tel: (719) 633-6969

TCH:jj

LETTER NO. 25

JOHN G. GOETTEN
Consulting Civil Engineers, Inc.

July 25, 1991

Bureau of Reclamation, LC-700
P.O. Box 427
Boulder City, Nevada 89005

Attention: Regional Planning Officer

Subject: INTDES 91-18
ALL AMERICAN CANAL LINING PROJECT

Gentlemen,

I have read the proposed subject report with great interest and I find several concepts that should be reviewed in more detail.

25-1 [The report accepts the "wet land" that has been apparently created by the construction of the original canal as a naturally occurring phenomena. When, infact, the wet land may have been a result of the leakage of the unlined canal. Therefore, the report should address the status of the "wet land" area prior to the canal construction, the creation of the wet land and why it should be now maintained. It should also address who will be responsible for the allocation of the water to this use, if it is to be maintained.

25-2 [Section III - 9 - Parallel Canal Alternative discusses the use of the "old" canal after the completion of the new lined canal. It indicates that the water districts would retain the old canal for temporary emergency use. This is an unacceptable proposal, the old canal should be filled with the earth excavated from the new channel and the surface area of the old canal returned to its natural contour, before the old canal was constructed. The negative impact of an unnatural land form (open, unlined ditch), would be eliminated. If the existing canal is left empty, it will be a constant maintenance problem, due to the drifting of earth and sand and the growth of weeds and brush. It will remain an unsightly, dangerous scar on the landscape. The report should be expanded to review the impact of leaving the existing channel empty, so the impact of that decision can be studied.

Thank you for the opportunity to comment. I look forward to your comments on these matters.

Very truly yours,

J. G. Goetten

1900 Alton Way
Santa Ana, California 92701
714 250-9882

Response to Letter 25

- 25-1 A discussion of the wetlands along the All-American Canal may be found in chapter III of the FEIS/FEIR. The wetlands developed shortly after the seepage-caused mound of the ground water under the canal rose to an elevation which would support wetland-type vegetation. The mitigation for the loss of wetlands between Drops 2 and 3 is in accordance with the national goal of no overall net loss of wetlands. Impacts to the identified 1,422 acres of wetlands between Drops 3 and 4 are to be avoided under the preferred alternative. Water is not anticipated to be supplied since the existing seepage in this area is expected to maintain these wetlands. In the event such seepage is caused to be inadequate by the project, the Act authorizes the development of ground water, with a priority given to nonpotable sources, from public lands to supply water for fish and wildlife purposes. To the extent such water is not available, it will be provided by the participating contractor.
- 25-2 The old canal would be managed by IID as an emergency channel in the event of damage to the parallel canal from earthquakes or other catastrophic events. A management plan for the old canal would be prepared during the project design phase and would include the specific actions needed to maintain the old canal for the purpose of an emergency use channel.

LETTER NO. 26

YUMA AUDUBON SOCIETY

P.O. BOX 6395
YUMA, ARIZONA 85366-6395

September 21, 1991

Regional Planning and Loans Officer
Bureau of Reclamation
LC-700
P.O. Box 427
Boulder City, Nevada 89005

Dear Sir or Madam:

The Yuma Audubon Society submits the following comments on the All-American Canal Lining Project, Imperial County, California. Draft Environmental Impact Statement/Draft Environmental Impact Report. Thank you for the opportunity to comment on this proposal. Page numbers, unless otherwise specified, are to the environmental impact statement (the EIS).

Purpose and Need of Project Are Questionable

Quite frankly, we must question the purpose and need for this project (p. S-1). This project would make available only 70,000 acre-feet to the Metropolitan Water District on an annual basis. Yet, the projected water shortage in southern California in 2010 is 1,200,000 acre-feet. If implemented, the All-American Canal lining would provide only 0.6% of the projected amount needed in southern California.

In addition, the EIS states that "... the volume of water lost from the canal as seepage is a small fraction of canal flow (2 percent) and is within the range of typical measurement error" (p. III-3). Other, more effective ways must be developed to reduce the gap between water supply and demand in southern California. Even if you lined every canal and ditch in the Imperial and Coachella Valleys, we doubt that it would provide enough water to fill the projected southern California demand.

More Alternatives Need to Be Examined

- 26-1 [The EIS should include an analysis of filling in the old canal. We are concerned that an unfilled canal will provide an attractive nuisance for off-highway vehicle (OHV) users. Such use would very likely erode the canal banks. How can you possibly keep the OHVs out if you don't fill in the old canal?

In addition, an earthquake that damages the lined canal would damage an unlined canal as well, reducing its value as a temporary replacement for the lined canal. If the canal remained unfilled

Response to Letter 26

- 26-1 Comment noted. See chapter I for discussion of project purpose and need.
- 26-2 The old canal would be managed by IID as an emergency channel in the event of damage to the parallel canal from earthquakes or other catastrophic events. A management plan for the old canal would be prepared during the project design phase and would include the specific actions needed to maintain the old canal for the purpose of an emergency use channel.
- 26-3 The development of a specific mitigation and monitoring program will be coordinated through the project's sponsor in cooperation with Reclamation and the appropriate agencies. Implementation of mitigation measures will be monitored to insure no unintended reduction in habitat quality results from the process of creating additional wetland habitat.
- 26-4 The actual site selection and layout of the revegetation areas will be determined during preconstruction site suitability surveys. The requirements for survivorship of species in revegetated areas will be specified in the mitigation agreement being developed by the project's sponsor in cooperation with Reclamation and the appropriate agencies. The purpose of the revegetation efforts is to replace the wetlands habitat values between Drops 2 and 3 which will be lost when the project is constructed. Research referenced in passage cited by commentor is Anderson and Ohmart, 1984 and Anderson and Ohmart, 1985.
- 26-5 Impacts to the identified 1,422 acres of wetlands between Drops 3 and 4 are to be avoided under the preferred alternative. Water is not anticipated to be supplied since the existing seepage in this area is expected to maintain these wetlands. In the event such seepage is caused to be inadequate by the project, the Act authorizes the development of ground water, with a priority given to nonpotable sources, from public lands to supply water for fish and wildlife purposes. To the extent such water is not available, it will be provided by the participating contractor.
- 26-6 The monitoring plan for the mitigation efforts is being developed by the project sponsor in cooperation with Reclamation and the appropriate agencies to ensure that a healthy wetlands community continues to exist for the life of the project.
- 26-7 Project impacts to flat-tailed horned lizard habitat will be mitigated by the acquisition of lands within established flat-tailed horned lizard preserve. This land will be transferred to Bureau of Land Management to be managed for the benefit of the species.
- 26-8 Mitigation for the impacts to special status species will include the acquisition and management of additional lands which are suitable habitat for the Andrew's dune scarab beetle.

and OHV use occurred in and out of it, erosion and vegetation would reduce its value as a temporary replacement as well.

Questions and Concerns About Wetland and Other Mitigation

We are glad to see that in comparison to prior environmental impact statements and assessments, there is a change in tone in this EIS about mitigation, which includes a section on environmental commitments. We are pleased to see that you are committed to mitigation to the wetland before the project commences.

However, in virtually all cases on the Colorado River, it would have been better to leave the existing vegetation alone rather than destroy it and try to mitigate. Reclamation has not had great success in its revegetation projects along the Colorado. Why should we believe that you can do a better job on the Drop 3-Drop 4 wetland? How, specifically, do you propose to create an acre of marsh in the Drop 3-Drop 4 wetland area? You could ruin the whole wetland if the mitigation is poorly designed and used unproven methods.

26-2

It is also unclear what level of survival and habitat quality you are committed to. Why 100 trees per acre? (p. II-10). You state that this is "pursuant to research completed along the lower Colorado River" but do not cite whose research projects or publications you are referring to. What do you expect the habitat to look like, and more significantly, what are you committed to it looking like and doing? This doesn't come out clearly enough in your section (Chapter VII) on environmental commitments.

26-3

Looking at more specific features of mitigation, why do you project that in spite of a loss of 1500 acre-feet of water in the canal, there will nevertheless be no effect on the Drop 3-Drop 4 wetland? The wetland will be getting less water--why won't it shrink? And how do you propose to create more wetland with less water?

26-4

While we were pleased to see that Reclamation plans to monitor the mitigation site (p. III-24), we were disappointed to discover that significant monitoring will occur only during the first two years. Monitoring on at least an annual basis will occur only through the tenth year, and the site will not even be visited in years eleven through fourteen and sixteen through nineteen. What if a plant disease or insect infestation developed during the eleventh year? A qualified monitor wouldn't visit the site until four years later. By then it might be too late for the trees. Monitoring should be at least semiannually from the sixth through twentieth years and more frequent before that.

26-5

The uncertainty about how you plan to mitigate for loss of Flat-tailed Horned Lizard habitat raises some serious questions that need to be resolved before the habitat is destroyed. We doubt that using the old canal for mitigation habitat for the horned lizard will work, unless you can demonstrate otherwise from some

26-6

- 26-9 Mitigation for special status plants has been updated in the FEIS/FEIR (see chapter IV, "Special Status Species).
- 26-10 An analysis of cumulative impacts to the Colorado River is presented in chapter IV of the FEIS/FEIR.
- 26-11 The canal will be constructed with escape ridges formed into the concrete sidewalls to help both animals and humans exit the canal.
- 26-12 The use of artificial reefs is based on previous work done by the Bureau of Reclamation in Arizona and Colorado. This work shows no adverse effects to water quality from use of tire reefs.
- 26-13 All necessary air quality permits will be obtained prior to construction. All construction practices will conform with guidelines developed to reduce the generation of airborne particulate matter.
- 26-14 The multiplier selected for the project is based on economic studies and professional judgement regarding the economic relationships involved on a project of this type.
- 26-15 A detailed analysis of employment during construction appears in the FEIS/FEIR Social Appendix. The estimated figures are based on projected availability in the project area of the type of skilled workers needed for the project. The numbers would not vary significantly whether out-of-area contractors or local contractors were utilized.
- 26-16 A detailed analysis of impacts to infrastructure appears in the FEIS/FEIR Social Appendix. The maximum number of travel trailers construction workers would use is estimated at 30. This number is deemed insignificant due to the large number of commercial recreational vehicle parking areas in local area. Use of BLM areas for parking of travel trailers will be in accordance with BLM regulations.

26-6
CON.) other location. If OHVs are riding into, out of, and through the old canal, it will not be good habitat for the lizards. What about when it rains? How will this affect the lizards if water soaks the canal? What do you think the lizards will be doing in the canal? Will ants live there? It would be much better to purchase and protect good habitat that is not now managed by a resource protection agency.

26-7 Mitigation for the Andrew's Dune Scarab Beetle should also include management of additional lands. This could perhaps be combined with similar provisions for other species.

26-8 The plant mitigation needs to be better-developed before being implemented. Why put such importance on the North Algodones Dunes Wilderness Study Area if you don't know there are areas that need rehabilitation? Surely there are other areas that could benefit from planting and seeding, if you could keep human impacts from destroying your work.

Cumulative Impact Analysis on Colorado River Needs to Be Expanded

Your section on cumulative impacts (Chapter IV) doesn't give an adequate picture of the situation on the Colorado River. In order to adequately assess such impacts, you need to trace the situation from the time of Hoover Dam at least, and even better from the time of the construction of Laguna Dam. There are some data available for such an analysis (starting with early explorers and Grinnell) and some digests of changes have also been published (such as by Anderson and Ohmart).

26-9 The Colorado is a vastly changed river with a much lower flow rate and regime than formerly. While further changes from the existing situation may not look significant to you (which we dispute), each project represents a cumulative degradation of the river as a natural habitat. Sometimes the increments are large, as in the construction of Hoover Dam, and sometimes small, but they all have a cumulative effect which has harmed the wildlife and habitat along the river.

Furthermore, the information in the EIS on impacts is average effects (p. S-5). Reclamation needs to analyze effects in specific areas of the Colorado, especially those critical to wildlife. Will the effects be greater the farther downstream one is from Parker Dam?

Public Health and Safety Issues

26-10 Better measures are needed to prevent people from drowning in the All-American Canal. The average of eighteen deaths a year is much too high and should shock anyone who learns of it. The EIS needs to seriously consider additional measures to prevent drownings, such as fencing, signs warning of danger and showing where the canal can be crossed by road or walkway, fenced walkways across the canal in areas of high use, ropes across the canal that people

26-10
(CON.) could grab onto, and life preservers on ropes.

26-11 What will the effect of the artificial reefs made from tires be on water quality? We understand that the drinking water for the Imperial Valley comes from the All-American Canal. Will any harmful substances come from the tires? Will they decompose? At what rate? What inert substances could be substituted for tires if tires are found to be harmful to water quality?

26-12 The Yuma area is in nonattainment for particulates. What effect will construction in Imperial County have on particulates in the Yuma area? Does Imperial County require construction practices that bring them into compliance with the particulate standard?

Economic Analysis

26-13 What did you choose a multiplier effect of 2.5? Are there alternative rates that are supported by research? If so, they should be included. How do you know that the Imperial Valley situation will correspond closely enough to other situations to choose 2.5?

26-14 We assume that this job will go out for competitive bid. What if a contractor from outside the Imperial Valley wins the contract? Will the number of local workers employed vary depending on where the contractor is from? How do subcontractors fit into the analysis of jobs that will be filled by locals vs. nonlocals?

26-15 What will the effect be of people living in trailers "in areas approved by BLM?" Will they be located in Long Term Visitor Areas, where the maximum stay is five months? Or elsewhere? The EIS should take these impacts into account.

Sincerely,



Cary W. Meister
Conservation Chairman

LETTER NO. 27

ALL-AMERICAN CANAL
Seepage Conservation

- 27-1 [1. Newspaper reports indicate 70,000 acre-feet lost annually due to seepage.
2. 3,300,000 acre-feet annually conveyed through the canal.
3. 196 ft. width by 23 mi. long section of canal under consideration.
- 27-2 [4. Existing wetlands, wildlife habitat, fishery habitat will be adversely affected by the project.
- 27-3 [5. Recreation opportunities (and associated economic benefits) will be lost if project proceeds.
- 27-4 [6. The seepage is not currently "lost". It is nurturing the local ecology.
- 27-5 [7. The "loss" to potential irrigation users amounts to 2% of the total annual capacity of the canal.
- 27-6 [8. What is the cost effectiveness of the proposed project?
- 27-7 [9. I submit that this project is totally unwarranted.

Alan P. Wells



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Response to Letter 27

- 27-1 The existing seepage of the All-American Canal from Pilot Knob to Drop 4 is estimated to be 91,000 acre-feet per year.
- 27-2 The project avoids impacting the 1,422-acre wetland complex adjacent to the All-American Canal between Drop 3 and Drop 4. Measures to mitigate for impacts to natural resources caused by this project are summarized in chapter VII of the FEIS/FEIR. These mitigation measures were developed in consultation with the interagency biological work group, which will coordinate their implementation.
- 27-3 The FEIS/FEIR addresses recreation in chapter III and V. No long-term adverse impacts to recreation are anticipated due to this project.
- 27-4 The largest wetland complex presently supported by canal seepage will be avoided by the project. Wetland habitat values lost due to the project will be replaced.
- 27-5 The project will salvage the water presently being lost to seepage. That salvaged water will then be available for beneficial use in accordance with Public Law 100-675.
- 27-6 The cost of the conserved water is \$109 per acre-foot (1990 prices). The cost of conserved water is the basic measure of "cost effectiveness" used for this project.
- 27-7 The project will increase California's useable supply of water by 67,700 acre-feet per year.

Summary of Oral Comments and Responses

The first public hearing was held September 11, 1991, at 6:30 p.m. at the Bureau of Reclamation, Yuma Projects Office, Yuma, Arizona. Three individuals presented oral statements.

The second public hearing was held September 12, 1991, at 1:00 p.m. at the Imperial Irrigation District Auditorium, El Centro, California. Eight individuals presented oral statements.

Major comments received at the public hearings were:

1. The need for more regulatory storage capacity within the All-American Canal system should be developed more fully in the FEIS/FEIR.
2. The effects of the project on the wells of the Lower Colorado Water Supply Project (LCWSP) should be developed in more detail in the FEIS/FEIR and assurances given that the LCWSP will continue to function as intended after the project is implemented.
3. California Water Law, as it relates to use of the water conserved by the project, should be discussed within the FEIS/FEIR.
4. The Well Field Alternative's development and operation and maintenance costs should be discussed in more detail.
5. Environmental commitments to mitigate the project impacts were challenged as being inadequate.
6. The criteria used to select the preferred alternative should be discussed in more detail.
7. The project is needed to help meet the demand for water in California and has the full support of Imperial Irrigation District, Coachella Valley Water District, and the Metropolitan Water District of Southern California.

Responses to these comments are as follows:

- Response 1. The regulatory storage capacity will be addressed during the preconstruction/design phase of the project. Any proposals developed for construction of storage facilities would include appropriate compliance with the National Environmental Policy Act.
- Response 2. The wells of the LCWSP were designed with the lining of the canal taken into consideration. No major adverse impact to the LCWSP is anticipated due to the canal lining project.

Response 3. The use of the water conserved by the project is governed by the provisions of Public Law 100-675 in accordance with the Seven Party Agreement, which establishes priorities for the use of California's entitlement of Colorado River water.

Response 4. The costs associated with the Well Field Alternative are fully developed in chapter II of the FEIS/FEIR and in the Engineering Appendix under "Well Field Alternative."

Response 5. The environmental commitments associated with this project have been revised to ensure that all losses of wildlife and fisheries values resulting from this project are mitigated for on an acre-for-acre basis, based on ecological equivalency as mandated in Public Law 100-675. These revised commitments were developed in consultation with the interagency biological work group.

Response 6. The criteria used to select the preferred alternative are discussed in chapter II of the FEIS/FEIR. Major criteria used were: cost of the water conserved, time needed for construction, and operation and maintenance costs.

Response 7. Thank you for your comment.

Summary of Oral Comments and Responses

The Bureau of Reclamation (Reclamation) and Imperial Irrigation District (IID) held two public hearings on the draft environmental impact statement/environmental impact report (DEIS/DEIR). The first hearing was on September 11, 1991, at 6:30 p.m. at Reclamation's Yuma Projects Office in Yuma, Arizona. Approximately 25 people attended, with 3 individuals presenting oral statements. The following is a list of those testifying and the order in which they appeared:

<u>Name</u>	<u>Representing</u>
Charles Shreves	Imperial Irrigation District
Cary Meister	Yuma Audubon Society
Tom Waller	Self

The second public hearing was on September 12, 1991, at 1:00 p.m. at the IID Auditorium, El Centro, California. Approximately 35 people attended, with 8 individuals presenting oral statements. The following is a list of those testifying in the order in which they appeared:

<u>Name</u>	<u>Representing</u>
Charles Shreves	Imperial Irrigation District
Cliff Hurley	Self
Robert Robinson	Coachella Valley Water District
Robert W. Schempp	Metropolitan Water District of Southern California
William Claypool	City of Needles
John Pierre Menvielle	Self
T.J. Ryan	Self
Jim Brock	Self

Major comments received at the public hearings were:

1. The need for more regulatory storage capacity within the All-American Canal system should be developed more fully in the FEIS/FEIR.
2. The effects of the project on the wells of the Lower Colorado Water Supply Project (LCWSP) should be developed in more detail in the FEIS/FEIR and assurances given that the LCWSP will continue to function as intended after the project is implemented.
3. California Water Law, as it relates to use of the water conserved by the project, should be discussed within the FEIS/FEIR.
4. The Well Field Alternative's development and operation and maintenance costs should be discussed in more detail.

5. Environmental commitments to mitigate the project impacts were challenged as being inadequate.
6. The criteria used to select the preferred alternative should be discussed in more detail.
7. The project is needed to help meet the demand for water in California and has the full support of Imperial Irrigation District, Coachella Valley Water District, and the Metropolitan Water District of Southern California.

Responses to these comments are as follows:

- Response 1. The regulatory storage capacity will be addressed during the preconstruction/ design phase of the project. Any proposals developed for construction of storage facilities would include appropriate environmental compliance.
- Response 2. An analysis of project impacts on the Lower Colorado Water Supply Project (LCWSP) may be found in chapter III of the FEIS/FEIR under "Water Quality." The LCWSP well field has been designed to accommodate the postlining decline in ground-water elevation. If pumping in the Mexicali Valley continues at historic levels, ground water of poorer quality would be expected to migrate into the well field area. Reclamation estimates that the change in water quality would not exceed 2 milligrams per liter per year after the lining is installed.
- Response 3. The use of the water conserved by the project is governed by the provisions of Public Law 100-675 in accordance with the Seven Party Agreement, which establishes priorities for the use of California's entitlement of Colorado River water.
- Response 4. The costs associated with the Well Field Alternative are fully developed in chapter II of the FEIS/FEIR and in the Engineering Appendix under "Well Field Alternative."
- Response 5. The environmental commitments associated with this project have been revised to ensure that all losses of wildlife and fisheries values resulting from this project are mitigated on an acre-for-acre basis, based on ecological equivalency as mandated in Public Law 100-675. These revised commitments were developed in consultation with the interagency biological work group.
- Response 6. The criteria used to select the preferred alternative are discussed in chapter II of the FEIS/FEIR. Major criteria used were: cost of the water conserved, time needed for construction, and operation and maintenance costs and international considerations.
- Response 7. Thank you for your comment.