

Date JUL 19 1978

AMENDMENT
NEGATIVE DECLARATION

TO ALL INTERESTED GOVERNMENT AGENCIES AND PUBLIC GROUPS:

As required by guidelines for the preparation of environmental impact statements, an environmental review has been performed on the proposed EPA action below:

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|----------------------|---------------------------------|
| Project | Wastewater Treatment Facility |
| Location | Grand Junction, Colorado |
| Project Number | C 080337-22 (Step 2) |
| Total Cost/EPA Share | \$14,172,000.00/\$10,516,500.00 |

The proposed wastewater treatment facility will be designed for a population of 119,600; the existing population of the study area is 58,000. The project study area includes floodplains, prime agricultural land, threatened and endangered species habitat, historical sites, or other unique or environmentally sensitive characteristics. The major primary impacts of the project will be three (3) river crossings. The major secondary impact expected is growth. An environmental impact appraisal which describes the project and analyzes the impacts in more detail is attached to this Negative Declaration.

The review process did not indicate significant environmental impacts would result from the proposed action. Significant adverse impacts have been eliminated by making changes in the project. Consequently, a preliminary decision not to prepare an EIS has been made. This action is taken on the basis of a careful review of the engineering report, environmental impact assessment, and other supporting data, which are on file in the above office and are available for public scrutiny upon request.

Comments supporting or disagreeing with this decision may be submitted for consideration by EPA. After evaluating the comments received, the Agency will make a final decision; however, no administrative action will be taken on the project for at least fifteen (15) working days after release of the Negative Declaration.

SIGNED BY ALAN MERTSON

PHILLIPS
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| SALAZAR:cp:7/7/78:3961 | | | | | | | |
| CONCURRENCES | | | | | | | |
| SYMBOL | SWED | 2WOG | 8-CTC | ALAN MERTSON Regional Administrator | 8W | 8PC | 7-20-78 |
| SURNAME | Salazar | Humbert | Wilk | Stem | HULLAY | Hull | |
| DATE | 7-7-78 | 7/7/78 | 7/10/78 | 7/19/78 | 7-20-78 | 7/20/78 | 7/20/78 |

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

AMENDMENT TO NEGATIVE DECLARATION
 GRAND JUNCTION, COLORADO
 PROJECT NO. C 080337

TO ALL INTERESTED GOVERNMENT AGENCIES AND PUBLIC GROUPS:

The original Negative Declaration for this project was dated February 20, 1976. This amendment is initiated to include the change in capacity of the proposed new West Plant from 6.5 mgd to 12.5 mgd that will discharge to Persigo Wash. The change in the facilities plan now also calls for phasing out the existing sewage treatment plant. There will be three (3) river crossings of the Colorado River by interceptor sewer lines expected in the construction of this project. The original Negative Declaration describes these river crossings in detail. Only one river crossing, the Scenic School (Red Canyon interceptor), may change from its description in the original document.

REFERENCE DOCUMENTS

The following new reference documents have been utilized by EPA in the environmental review of this project and are considered to be part of the project file:

1. Predesign Report for Wastewater Treatment Facilities and Interceptor Sewers, Hemmingson, Durham & Richardson, Inc., August, 1977.
2. Supplement No. 2 to Predesign Report Relating to Seasonal Ammonia Nitrogen Requirements Summary of Cost Evaluations, December 28, 1977, Hemmingson, Durham & Richardson, Inc., December, 1977.
3. Letter - Hemmingson, Durham & Richardson, dated April 7, 1978, with attachments of letters from Agricultural Research Service, U.S. Department of Agriculture, dated February 17, 1978, U.S. Department of Agriculture, Soil Conservation Service, dated February 21, 1978, U.S. Department of Interior, Bureau of Reclamation, dated March 3, 1978 and Woodward-Clyde Consultants, dated February 28, 1978.

AGENCIES CONSULTED

1. National Wildlife Federation - letter from the Federation states that EPA should consider writing an environmental impact statement since the project concept has changed. Another reason suggested by the Federation was, due to the threatened and endangered fish species found in the Colorado River, a new environmental impact appraisal is required on this project. EPA has contacted the National Wildlife Federation and explained that an amended environmental impact appraisal and Negative Declaration will be written on this project.

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|---------|-----------------|--|--|--|--|--|--|
| SYMBOL | 82069 KWE0 | | | | | | |
| SURNAME | Hornberg, Cjt | | | | | | |
| DATE | 7-19-78 7/19/78 | | | | | | |

2. U.S. Fish and Wildlife Service - the EPA has coordinated activities with the above Federal agency and the corresponding State agency who have identified the endangered fish species in the Colorado River.

The EPA has conveyed a written request to the U.S. Fish and Wildlife Service for consultation on this project in accordance with Part 402 Interagency Cooperation-Endangered Species Act of 1973, and an informal consultation procedure has been started between the two agencies. A proposed preliminary assessment water quality study contracted for and funded by EPA will be completed in September, 1978 on the background parameters including ammonia in the Colorado River. The formal consultation procedure with the U.S. Fish and Wildlife Service and EPA will commence after this preliminary study is completed. A recent letter from the U.S. Fish and Wildlife Service has been received by EPA on the consultation procedure between these agencies. The Fish and Wildlife letter states, "Because your proposed plans have the treatment plant downstream of the area (Walker Wildlife Area - habitat for endangered species), and uses the Persigo Wash for a discharge channel to the river, we believe there will be no adverse impacts to the endangered Colorado River fishes."

SIGNIFICANT ISSUES

Since approval of the initial facility plan and subsequent issuance of the Negative Declaration relating to that plan, changes have been made in the treatment plant sizing and location.

The Grantee and consulting engineer have extensively explored the possibility of lagoon treatment and land disposal in lieu of an activated sludge secondary sewage treatment plant at the West Side location. Overflow basins are planned to catch and hold combined sewer overflows during peak runoff conditions for discharge to the West Side Plant for treatment during low flow periods.

Irrigated agriculture in the Grand Valley in the vicinity of Grand Junction is a major contributor to the salt load carried by the Colorado River. The Agricultural Research Service (ARS) of the U.S. Department of Agriculture reports that salt loadings from this area amount to 650,000 to 850,000 tons per year. The improvement program anticipated by the U.S. Bureau of Reclamation and the Soil Conservation Service is estimated to reduce this loading by 410,000 tons per year.

In designing a land application system for a flow of 12.5 MGD, it is estimated that approximately 405 acres of treatment and storage

lagoons would be required. In addition, approximately 413 acres of farm land would be required to allow irrigation with the sewage effluent. According to figures developed by ARS studies in the Grand Valley, approximately 20,000 tons of salt from these facilities could be discharged with groundwater to the Colorado River. Of this total amount, approximately 14,000 tons is estimated to be from seepage from compacted earth lined lagoons and reservoirs should these be constructed. Any increase in salt loading is unacceptable according to the U.S. Department of the Interior, Bureau of Reclamation, who in their letter of March 3, 1978 pointed out that irrigation of new or additional lands above the Government Highline Canal would partially or totally negate results from their salinity control program. They further pointed out that irrigation with treated effluent below the Government Highline Canal would be acceptable providing (1) the lands to be irrigated are presently being irrigated, (2) the water currently used for irrigation of these lands would not be used to irrigate new lands, and (3) that irrigation with sewage effluent would be subject to the programs now being proposed for salinity control in the valley, i.e., canal and lateral lining, irrigation management for better efficiency, etc. They further recommended that lagoons and storage reservoirs constructed for sewage disposal be lined and made as impervious as practicable.

Compacted earth linings have little ability to resist uplift caused by unbalanced groundwater pressures on the underside of the lining and are susceptible to shrinking and cracking when dried. A buried PVC lining would offer the best impervious solution but are quite costly. In the opinion of the Bureau of Reclamation, the only situation that may warrant leaving lagoons unlined would occur when the ponds are located fairly close to the River or are located on impermeable material. Seepage from ponds located fairly close to the River would likely be directly to groundwater of the river alluviums. However, some type of lining would still be required because of possible contamination of groundwater by seeped sewage. A major factor in the unfavorable costs of land treatment, therefore, is the expense of PVC lining for the sewage lagoons and effluent storage reservoir. Because of this cost and the other factors resulting from salinity control, EPA concurs in the Grantee's selection of a mechanical system as being better suited to Grand Junction's needs than land treatment. However, the City is agreeable to pursuing the possibility of water exchange agreements with irrigators which would release comparable amounts of irrigation water to augment stream flow.

A predominant environmental issue in the Grand Junction area is the amount of ammonia which can be discharged from the wastewater treatment works to Persigo Wash. The un-ionized ammonia in the Colorado

River resulting from the sewage plant discharge, after mixing, must not result in un-ionized ammonia concentrations which could cause harm to the endangered and threatened fish species which inhabit that particular stretch of the river. There are many physical factors to consider in this determination. Factors such as DO, CO₂, temperature, bicarbonate alkalinity, TSS, TDS, etc., directly influence un-ionized ammonia toxic levels for fish.

The proposed new plan for Grand Junction is to abandon the existing sewage plant and construct a new West Plant that will be sized for 12.5 mgd, instead of the 6.5 mgd plant previously planned for the area. The proposed new West activated sludge (secondary treatment) plant should remove some ammonia, and the plant effluent will be discharged to Persigo Wash. This wash is dry except during irrigation season and is about 1,000 feet from the Colorado River.

EPA is in the process of contracting the work for a water quality study on the Colorado River in the Grand Junction and Fruita area. This study of the river will include the following parameters pertaining to the Grand Junction area: (1) ammonia (NH₃), (2) pH, (3) temperature, and (4) river and effluent flow. The location of sampling stations along the river will be: (1) Colorado River upstream from the present Grand Junction wastewater treatment facility and downstream from the confluence of the Colorado River and Gunnison River, (2) existing Grand Junction wastewater treatment facility effluent discharge, (3) Colorado River immediately upstream from the location of the proposed Grand Junction wastewater treatment facility, (4) Persigo Wash (canal) immediately upstream from the confluence with the Colorado River, and (5) Colorado River immediately downstream from the confluence of the Colorado River and Persigo Wash (canal). This study will also include the stretch of the Colorado River where the proposed Fruita, Colorado project is to be constructed and its effluent discharged via Little Salt Wash to the river.

The proposed water quality study to be conducted on the Colorado River will take about 15 months to complete. However, a preliminary assessment survey of the results of this study will be presented to EPA officials by September, 1978. This preliminary assessment survey should determine whether the grantee and his consultant will have to address ammonia control of the discharge.

A condition to the grant to this effect will be inserted and results of the water quality study and other significant factors will determine if ammonia control will or will not be necessary on this project.

REASONS FOR NOT PREPARING AN EIS

It is EPA's finding that the probable impacts of this proposed project do not meet the criteria for the preparation of an EIS as set forth in Sections 6.200 and 6.510 of 40 CFR Part 6, which constitute EPA's regulations for the preparation of environmental impact statements. The reasons why EPA believes that these criteria for an EIS that are most pertinent to this particular project are not met are set forth below:

1. 40 CFR 6.510(c): The proposed project will not be located on or adversely affect the habitat of any endangered or threatened species. The EPA is aware that endangered fish species frequent the stretch of the Colorado River where the proposed effluent discharge will eventually reach, and EPA will caution the grantee and his consultant about the problem. Also, EPA is in the process of funding a water quality assessment study that will determine allowable ammonia levels in this particular stretch of the Colorado River. This study will determine if the consulting engineer should or should not include ammonia control in the construction of the project.

2. 40 CFR 6.510(e): The proposed wastewater treatment works construction and location will not have any adverse impacts on known historical, cultural, or archaeological resources. The EPA is conducting a cultural resource survey on the proposed project site to ensure that no cultural resources might be found or disturbed. EPA has included a stipulation to the grant requiring the grantee to conduct a cultural resource survey by a qualified archaeologist/historian prior to the start of construction on this project. This survey has been contracted to a professional cultural resource consultant who is completing the cultural resource survey at the Grand Junction proposed wastewater treatment facilities site. This survey should be completed by early July of 1978.

REVIEWED BY ALAN MERSON

Alan Merson
Regional Administrator