

ATTACHMENT 3.0 CEQA Checklist and discussion

Proposed Amendment to the Water Quality Control Plan for the Colorado River Basin Region to Establish the Alamo River Sedimentation/Siltation Total Maximum Daily Load
February 4, 2002

Page 1 of 48

ATTACHMENT 3

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD COLORADO RIVER BASIN REGION

CALIFORNIA ENVIRONMENTAL QUALITY ACT REQUIREMENTS

**Amendment to the
California Regional Water Quality Control Plan for the
Colorado River Basin Region (Basin Plan)
to Establish the
Alamo River Sedimentation/Siltation Total Maximum Daily Load**

The California Regional Water Quality Control Board, Colorado River Basin Region (hereinafter referred to as the Regional Board) is the Lead Agency for evaluating the environmental impacts of the proposed amendment to the *Water Quality Control Plan for the Colorado River Basin Region (Basin Plan)*, to incorporate an Alamo River Sedimentation/Siltation Total Maximum Daily Load. The Secretary of Resources has certified the basin planning process as exempt from certain requirements under the California Environmental Quality Act (CEQA), including preparation of an initial study, a negative declaration and environmental impact report [Title 14, California Code of Regulations, Section 15251(g)]. As this proposed amendment to the *Basin Plan* is part of the basin planning process, the amendment is considered 'functionally equivalent' to an initial study, a negative declaration and an environmental impact report. Included in the 'functionally equivalent' amendment are: Alamo River Sedimentation/Siltation Total Maximum Daily Load; Draft Resolution; Basin Plan Amendment; CEQA Checklist; Natural Environment Study; and, Economic Analysis of the Alamo River Sedimentation/Siltation TMDL.

Any regulatory program of the Regional Board certified as functionally equivalent, however, must satisfy the documentation requirements of Title 23, California Code of Regulations, Section 377(a), which requires an Environmental Checklist with a description of the proposed activity, and a determination with respect to significant environmental impacts. This information is presented below.

Project Title:

Amendment to the California Regional Water Quality Control Plan for the Colorado River Basin Region (Basin Plan) to establish the Alamo River Sedimentation/Siltation Total Maximum Daily Load (TMDL)

Lead agency name and address:

California Regional Water Quality Control Board, Colorado River Basin Region
73-720 Fred Waring Drive, Suite 100
Palm Desert, CA 92260

Contact person and phone number:

Teresa Newkirk, Environmental Specialist IV, (760) 776-8931

ATTACHMENT 3.0 CEQA Checklist and discussion

Project location:

Colorado River Basin Region (southeastern California), Imperial County

Project sponsor's name and address: (see lead agency)

General plan designation: Not Applicable

Zoning: Not Applicable

Description of project:

The Water Quality Control Plan for the Colorado River Basin Region (also known as Basin Plan) designates beneficial uses of waterbodies, establishes water quality objectives for the protection of these beneficial uses, and outlines a plan of implementation for maintaining and enhancing water quality. The existing Basin Plan includes narrative water quality objectives that apply to sediment. The objectives are being violated and the beneficial uses are being impaired in the Alamo River by excessive delivery of sediment from farmland and agricultural drains in Imperial County. The proposed Basin Plan amendment will establish the Alamo River Sedimentation/Siltation Total Maximum Daily Load (TMDL) and an implementation plan (TMDL Implementation Plan) to address the sediment-impairment of the river. The TMDL Implementation Plan requires that parties responsible for the impairment implement best management practices (BMPs) in accordance with a time schedule to address the impairment.

Surrounding land uses and setting:

The Basin Plan is applicable to the Colorado River Basin Region of California, as set forth in the California Water Code, Division 7, Section 13200(i). The region is located in southeastern California. The amendment applies to agricultural land in Imperial Valley.

Other public agencies whose approval is required: (e.g., permits, financing approval, or participation agreement.) None

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

- | | | |
|--|---|--|
| <input type="checkbox"/> Aesthetics | <input checked="" type="checkbox"/> Agriculture Resources | <input type="checkbox"/> Air Quality |
| <input checked="" type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Geology/Soils |
| <input type="checkbox"/> Hazards & Hazardous Materials | <input checked="" type="checkbox"/> Hydrology/Water Quality | <input type="checkbox"/> Land Use/Planning |
| <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Noise | <input type="checkbox"/> Population |
| <input type="checkbox"/> Public Services | <input type="checkbox"/> Recreation | <input checked="" type="checkbox"/> Transportation/Traffic |
| <input type="checkbox"/> Utilities/Service Systems | <input type="checkbox"/> Mandatory Findings of Significance | |

ATTACHMENT 3.0 CEQA Checklist and discussion

Proposed Amendment to the Water Quality Control Plan for the Colorado River Basin Region to Establish the Alamo River Sedimentation/Siltation Total Maximum Daily Load
February 4, 2002

Page 3 of 48

I. EVALUATION OF ENVIRONMENTAL IMPACTS

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
1. <u>AESTHETICS</u> – Would the project:				
a) Have any substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. <u>AGRICULTURE RESOURCES</u> -- In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

ATTACHMENT 3.0 CEQA Checklist and discussion

	Less Than	Less Than	No Impact
Potenti ally Signific ant Impact	Signific ant with Mitigati on	Signific ant Impact	

3. AIR QUALITY -- Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

- | | | | | |
|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a) Conflict with or obstruct implementation of the applicable air quality plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) Expose sensitive receptors to substantial pollutant concentrations? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Create objectionable odors affecting a substantial number of people? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

4. BIOLOGICAL RESOURCES -- Would the project:

- | | | | | |
|---|--------------------------|-------------------------------------|--------------------------|--------------------------|
| a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

ATTACHMENT 3.0 CEQA Checklist and discussion

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. CULTURAL RESOURCES -- Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6. GEOLOGY AND SOILS -- Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss injury, or death involving:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

ATTACHMENT 3.0 CEQA Checklist and discussion

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7. HAZARDS AND HAZARDOUS MATERIALS --				
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

ATTACHMENT 3.0 CEQA Checklist and discussion

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8. HYDROLOGY AND WATER QUALITY -- Would the project:				
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support the existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

ATTACHMENT 3.0 CEQA Checklist and discussion

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j) Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9. LAND USE AND PLANNING -- Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10. MINERAL RESOURCES -- Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

ATTACHMENT 3.0 CEQA Checklist and discussion

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
11. NOISE -- Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
12. POPULATION AND HOUSING -- Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

ATTACHMENT 3.0 CEQA Checklist and discussion

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
13. PUBLIC SERVICES --				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
14. RECREATION --				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
15. TRANSPORTATION / TRAFFIC -- Would the project:				
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

ATTACHMENT 3.0 CEQA Checklist and discussion

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Result in inadequate parking capacity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
16. UTILITIES AND SERVICE SYSTEMS -- Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

ATTACHMENT 3.0 CEQA Checklist and discussion

	Potenti ally Signific ant Impact	Less Than Signific ant with Mitigati on	Less Than Signific ant Impact	No Impact
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
17.. MANDATORY FINDINGS OF SIGNIFICANCE --				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable ("cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

ATTACHMENT 3.0 CEQA Checklist and discussion

Proposed Amendment to the Water Quality Control Plan for the Colorado River Basin Region to Establish the Alamo River Sedimentation/Siltation Total Maximum Daily Load
February 4, 2002

Page 13 of 48

II. DETERMINATION

On the basis of this initial evaluation:

 I find that the proposed Basin Plan amendment could not have a significant effect on the environment.

 X I find that the proposed Basin Plan amendment could have a significant adverse effect on the environment. However, there are feasible alternatives and/or feasible mitigation measures that would substantially lessen any significant adverse impact. These alternatives are discussed in the attached written report.

 I find that the proposed Basin Plan amendment may have a significant effect on the environment. There are no feasible alternatives and/or mitigation measures available which would substantially lessen any significant adverse impacts. See attached written report for a discussion of this determination.

PHIL GRUENBERG
Executive Officer

Date

ATTACHMENT 3.0 CEQA Checklist and discussion

Proposed Amendment to the Water Quality Control Plan for the Colorado River Basin Region to Establish the Alamo River Sedimentation/Siltation Total Maximum Daily Load
February 4, 2002

Page 14 of 48

THIS PAGE INTENTIONALLY LEFT BLANK

ENVIRONMENTAL CHECKLIST DISCUSSION

The following discussions are grouped according to each of the major areas of the Environmental Checklist and cover the Potentially Significant Impact, Less Than Significant Impact With Mitigation, Less Than Significant Impact, No Impact categories, and Project Alternatives.

As explained in the CEQA Checklist, the discussion that follows is also intended to fulfill the requirements of California Code of Regulations Title 23, section 3777, subdivision (a)(1) through (3); Public Resources Code section 21159, subdivision (a)(1) through (3); and California Code of Regulations Title 14, section 15187, subdivisions (b) and (c)(1) through (3). More explicitly, this document provides an analysis of the reasonably foreseeable environmental impacts resulting from the implementation of the project. Where appropriate, the evaluation also includes an analysis of feasible reasonably foreseeable mitigation measures identified for those impacts; and an analysis of reasonably foreseeable alternative means of compliance with the requirements of this project, which would avoid or eliminate the identified impacts.

PROJECT DESCRIPTION

The proposed project consists of an Amendment to the Water Quality Control Plan for the Colorado River Basin Region (hereafter "Basin Plan") that will establish the Alamo River Sedimentation/Siltation Total Maximum Daily Load (TMDL). Also, and as required by Section 13242 of the Porter-Cologne Water Quality Act, the proposed amendment incorporates an implementation plan for the TMDL that includes: (a) a description of the actions to be taken to achieve the TMDL, including recommended actions; (b) proposed time schedules for actions to be taken, and (c) proposed surveillance to be implemented to measure compliance with the TMDL. The implementation plan for the TMDL is hereafter referred to as the "TMDL Implementation Plan." The TMDL can potentially affect up to 330,000 acres of farmland draining into the Alamo River.

The Amendment will require Imperial Irrigation District (IID), the agricultural discharger in the Alamo River watershed to implement sediment-control measures in the form of Best Management Practices (BMPs). It also requires the U.S. Section of the International Boundary and Water Commission (IBWC) to submit proposed measures to prevent discharges of wastes from Mexico from violating the TMDL. For the purposes of this analysis of potential environmental impacts, the "proposed project" includes the amendment, the reasonably foreseeable actions (i.e., BMPs) to be implemented by responsible parties to comply with the TMDL, and the TMDL surveillance actions.

Area/Waterbody Description

The Alamo River is the main tributary of the Salton Sea, California's largest inland surface water body. The river has its headwaters in Mexico 0.6 miles south of the International Boundary with the United States, and travels roughly 60 river miles through Imperial County before it empties into

ATTACHMENT 3.0 CEQA Checklist and discussion

Proposed Amendment to the Water Quality Control Plan for the Colorado River Basin Region to Establish the Alamo River Sedimentation/Siltation Total Maximum Daily Load
February 4, 2002

Page 16 of 48

the southeast corner of the Salton Sea, just east of the unincorporated community of Niland. This area is characterized by its arid environment (about 3 inches per year average precipitation). Imperial County covers approximately 4,597 square miles (2,942,080 acres) (Imperial County, 1993.). About 50% of County lands are undeveloped and under the jurisdiction and ownership of the federal government. Of the developed acreage, approximately 480,000 acres are irrigated lands for agricultural purposes (Annual Inventory of Areas Receiving Water Years 1998, 1997, 1996. Imperial Irrigation District, 1999). Developed areas (e.g., cities, communities, and support facilities) occupy less than 1% of the land within the county. The Salton Sea covers about 7% of the County's area. The biological setting is further described in the discussion of potential impacts on Biological Resources in Attachment 3 A-Natural Environment Study.

Reasons for the Proposed Project

A TMDL is defined as the maximum amount of a pollutant that a body of water can receive and still meet water quality standards (Federal Water Pollution Control Act Section 303 (d) et seq.). The Basin Plan establishes water quality standards for waterbodies within the region by designating beneficial uses for waterbodies within the Region and establishing water quality objectives for the protection of these beneficial uses. The Basin Plan also outlines a plan of implementation for maintaining and enhancing water quality. The existing Basin Plan includes narrative sediment and turbidity water quality objectives to protect beneficial uses for the Alamo River. The proposed amendment quantifies the objectives for the TMDL.

Pursuant to Section 303(d) of the Clean Water Act (33 § USGA 1313d), in 1998 the Regional Board adopted a list of impaired waters. The list (303(d) List) was approved by the State Water Resources Control Board (State Board) the same year and identifies the Alamo River as water quality limited, in part, because sediment concentrations violate the water quality standards (WQS) established by the Regional Board to protect the beneficial uses of the river. Excess delivery of suspended sediment to the Alamo River from agricultural drains operated and maintained by the Imperial Irrigation District (IID) and from farmland in the Imperial Valley exceeds Basin Plan's water quality objectives for sediment and turbidity. The main sources of suspended sediment in the drains are agricultural return flows and operation and maintenance of the drainage system.

Section 303 (d)(A)(1) of the Clean Water Act (CWA) requires the California Regional Board to establish TMDLs for those pollutants causing the impairments to ensure that impaired waters attain their beneficial uses. Therefore Regional Board staff has developed, for consideration of adoption by the Regional Board, the Draft Sedimentation/Siltation TMDL, the TMDL Implementation Plan, and a proposed Amendment to the Basin Plan to incorporate the key components of the TMDL.

The proposed Basin Plan Amendment:

Updates references to the State's Nonpoint Source Pollution Control Program.

Includes the elements of the Regional Nonpoint Source Control Program.

Deletes dated information that is no longer accurate.

ATTACHMENT 3.0 CEQA Checklist and discussion

Proposed Amendment to the Water Quality Control Plan for the Colorado River Basin Region to Establish the Alamo River Sedimentation/Siltation Total Maximum Daily Load
February 4, 2002

Page 17 of 48

Establishes a site-specific water quality objective for the Alamo River of 200 milligrams total suspended solids per liter of water for the entire U.S. reach of the river.

Adds a Section for the proposed TMDL that:

Summarizes the "technical" TMDL elements, including the Problem Statement, Numeric Target, Source Analysis, Margin of Safety, Seasonal Variation/Critical Condition information, Loading Capacity, and Allocations;

Establishes interim numeric targets;

Designates Responsible Parties and Proposed Management Actions;

Lists available sediment-control Best Management Practices;

Describes the recommended actions for cooperating agencies;

Describes compliance assurance and enforcement activities for the proposed TMDL;

Describes Regional Board monitoring, tracking, and assessment activities to monitor the implementation of the proposed TMDL;

Describes the public reporting activities for the proposed TMDL; and

Describes the Regional Board review process for the proposed TMDL.

TMDL Implementation Plan

The Regional Board must adopt an implementation plan for achieving water quality objectives (CWC § 13242). The TMDL Implementation Plan fulfills the regulatory and legislative requirements of a water quality implementation plan and is consistent with state water quality control policies. Also, the Regional Board must identify methods available for compliance with the TMDL (CWC § 13241). Consistent with this requirement, the TMDL Implementation Plan contains a list of BMPs that can be used for compliance with the TMDL. BMPs are defined as "...methods, measures, or practices selected by an agency to meet its nonpoint source control needs. BMPs include but are not limited to structural and nonstructural controls and operation and maintenance procedures. BMPs can be applied before, during, and after pollution-producing activities to reduce or eliminate the introduction of pollutants into receiving waters..." (Title 40, Code of Federal Regulations, Part 130.2).

In developing the TMDL, two lists of BMPs for reducing the amount of sediment discharged from agricultural sources in the Imperial Valley were created. The lists are the basis for the BMPs contained in the proposed Amendment and were generated by the TMDL Technical Advisory Committee, and the University of California Cooperative Extension. Most sediment-control BMPs work by slowing the velocity of irrigation water runoff and/or making the field or drain more

ATTACHMENT 3.0 CEQA Checklist and discussion

Proposed Amendment to the Water Quality Control Plan for the Colorado River Basin Region to Establish the Alamo River Sedimentation/Siltation Total Maximum Daily Load
February 4, 2002

Page 18 of 48

resistant to erosive forces. The listed BMPs are not prescriptive because California law prohibits the Regional Board from specifying design, location, type of construction, or particular manner in which compliance may be had (CWC § 13360). Hence, the Basin Plan amendment allows the responsible party to implement other non-listed BMPs, so long as law does not prohibit the BMPs.

Likely TMDL BMPs

Based on the foregoing, at the time of this analysis, it is uncertain what BMPs IID may implement to mitigate the water quality impact caused by its dredging operations and ensure compliance with this proposed TMDL. Options for IID, include reducing the amount and frequency of dredging and implementing appropriate seasonal dredging restrictions to avoid impacts on sensitive resources (e.g., the Alamo River Delta). These measures would not result in any significant environmental impacts that would require mitigation measures. Nevertheless, because of the uncertainty, the proposed Basin Plan Amendment requires IID to submit a sediment-control and monitoring program for its drains and the Alamo River Delta. The program, in part, must identify proposed control measures and a time schedule for implementation. The IID is a “Public Agency” as defined by state law (PRC 21063). To the degree that its proposed measures are not exempt from CEQA and/or fall outside the scope of the analysis presented herein, the IID is expected to act as a Lead Agency for its projects and comply with the CEQA requirements for its projects (PRC 21159.2, State CEQA Guidelines 15189).

Also, it is uncertain what measures the USEPA and/or the U.S. Section of the International Boundary and Water Commission (IBWC) may need to implement to assure that discharges of wastes from Mexico into the Alamo River at the International Boundary with Mexico do not violate the allowable silt/sediment load for the boundary. It is unlikely that it will implement controls within California (i.e., Imperial County) because it has consistently indicated that pollution from Mexico is best addressed through implementation of measures/controls in Mexico. Under this scenario, a CEQA analysis of the control measures is not required, but the IBWC may need to satisfy the requirements of National Environmental Policy Act of 1969 (PRC Section 21080, State CEQA Guidelines 15189).

Similarly, there is some uncertainty regarding the exact number of the BMPs to be undertaken by the farmers pursuant the Amendment. However, a qualitative analysis of the cost, effectiveness, and anticipated local acceptability of the recommended BMPs identifies the BMPs that are likely to be widely implemented by farmers/growers/landowners for TMDL compliance. The analysis is based on the following premises:

1. The agricultural dischargers are likely to select the BMPs that are the most affordable to implement.
2. The agricultural dischargers are likely to select the BMPs that are effective at reducing sediment loading to the Alamo River, and
3. The agricultural dischargers are likely to implement BMPs that are feasible to implement and do not involve the risk of significantly harming crop yields or farm soils.

ATTACHMENT 3.0 CEQA Checklist and discussion

Proposed Amendment to the Water Quality Control Plan for the Colorado River Basin Region to Establish the Alamo River Sedimentation/Siltation Total Maximum Daily Load
February 4, 2002

If a BMP is not affordable, not effective, or not accepted by the farming community, it is unlikely that the BMP will be implemented. BMP affordability criteria were based on the cost analyses contained in the List of Agricultural Best Management Practices for the Imperial Valley (Jones and Stokes, 1996) and the Alamo River Sediment TMDL Economic Assessment (SWRCB, 2000). Costs were considered low in this analysis if they were rated as low in the List of Agricultural Management Practices for the Imperial Valley, or were determined to cost less than 1% of per-acre gross production crops in the Sediment TMDL Economic Assessment. BMP effectiveness was assessed using the effectiveness ratings contained in the List of Agricultural Best Management Practices for the Imperial Valley, recommendations of the UC Cooperative Extension and the Silt TMDL Technical Advisory Committee, and best professional judgment. Local anticipated acceptability was determined based on correspondence and other communications with Imperial Valley Farmers, the Silt TMDL Technical Advisory Committee, and the Imperial Irrigation District; and whether a BMP has been or is being used by local farmers. Table 1 below summarizes the results of this analysis.

Table 1: BMP Evaluation

Best Management Practice	Is the BMP Cost Effective?	Is BMP effective in reducing Silt?	Anticipated Acceptability	Is widespread implementation likely?
Maintenance of Field Drainage Structure (Imperial Irrigation District Regulation No. 39)	Yes ^e	Yes ^e	Yes	Yes
Tailwater Drop Box with Raised Grade Board	Yes ^e	Yes ^e	Yes	Yes
Improved Drop Box with Widened Weir and Raised Grade Board	Yes ^e	Yes ^e	Yes	Yes
"Pan Ditch" - Enlarged Tailwater Ditch Cross Section	Yes	Yes	Yes	Yes
Tailwater Ditch Checks or Check Dams	Yes ^{fe}	Yes ^{fe}	Yes	Yes
Irrigation Water Management	Yes ^{ef}	Yes ^{fe}	No	No
Field to Tailditch Transition	Yes	Yes	Yes	Yes
Furrow Dikes (aka C-Taps)	Yes ^e	Yes ^{ae}	Yes	Yes
Filter Strips	Yes ^{ef}	Yes ^{ge}	Yes	Yes
Reduced Tillage	Yes ^{ge}	No ^{cfe}	Yes	No
Channel Vegetation/Grassed Waterway	Yes ^{e,g}	Yes ^{e,g}	Yes	Yes
Irrigation Canal or Lateral	Yes	Yes ^g	Yes	Yes
Irrigation Land Leveling	No ^{-e}	Yes ^f	Yes	No

ATTACHMENT 3.0 CEQA Checklist and discussion

Proposed Amendment to the Water Quality Control Plan for the Colorado River Basin Region to Establish the Alamo River Sedimentation/Siltation Total Maximum Daily Load
 February 4, 2002

Best Management Practice	Is the BMP Cost Effective?	Is BMP effective in reducing Silt?	Anticipated Acceptability	Is widespread implementation likely?
Sedimentation Basis	No ^e	Yes ^{b,f}	Yes	No
Sprinkler Irrigation	No ^e	Yes ^{f,e}	Yes	No
Drip Irrigation	No ^{e,f}	Yes ^{f,e}	Yes	No
<p>Notes:</p> <p>a = Baumhardt et al., 1993 b = Brown et. al .1981 c = Carter and Berg, 1991 d = IID, 1978 e = Jones and Stokes Associates, 1996 f = USDA, Soil Conservation Service 1992 g = USDA, 1996</p>				

Based on this analysis, the BMPs likely to have widespread implementation by farmers for the purpose of complying with this TMDL are: maintenance of field drainage structure (Imperial Irrigation District regulation No. 39); tailwater drop box with raised grade board; improved drop box with widened weir; raised grade board "pan ditch"; enlarged tailwater ditch cross section; tailwater ditch checks; check dams field to tailditch transition furrow dikes (c-taps); filter strips; and, channel vegetation/grassed waterway. The subsequent environmental analysis in this document is based on the potential widespread implementation of these BMPs throughout the Alamo River Watershed.

EVALUATION OF ENVIRONMENTAL IMPACTS DISCUSSION

I. Aesthetics

Would the project:

- a) Have any substantial adverse effect on a scenic vista?

No impact. These agricultural sites are not considered to be sensitive with respect to scenic resources.

- b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No impact. There are no impacts expected in relationship to scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.

- c) Substantially degrade the existing visual character or quality of the site and its surroundings?

No impact. It is not expected that the existing visual character or quality of the site and its surroundings will be substantially degraded by the action.

- d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

No impact. There are no new sources of substantial light or glare which would adversely affect day or nighttime views in the area.

II. Agriculture Resources

Would the project:

- a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

Less Than Significant Impact. Out of the 16 BMPs recommended by the Silt TMDL TAC, the University of California Cooperative Extension, and Jones and Stokes Associates, only 3 BMPs would require the conversion of any amount of land: construction of filter strips, widening of tailwater ditches, and sedimentation basins. As stated in a previous paragraph, sedimentation basins are not likely to be implemented for compliance with the TMDL.

ATTACHMENT 3.0 CEQA Checklist and discussion

Proposed Amendment to the Water Quality Control Plan for the Colorado River Basin Region to Establish the Alamo River Sedimentation/Siltation Total Maximum Daily Load
February 4, 2002

Page 22 of 48

The estimated maximum size of a filter strip designed to service 80 acres of irrigated land (i.e., a 2,900-foot by 1,200-foot furrow field) is approximately 20 feet wide (Sojka, 1996). The typical tailwater ditch in Imperial County is about 5 feet wide. Therefore, a filter strip would increase the existing typical tailwater ditch by 15 feet in width. This increase represents about one acre ($15 \text{ ft} \times 2,900 \text{ ft} = 43,500 \text{ ft}^2 < 1 \text{ acre}$) per 80-acre field. Similarly, the typical tailwater ditch for an 80-acre field would have to be widened by about 10 feet for sediment-control (i.e., a typical widened tailwater ditch is 15 feet wide) (Cocke, 2001). This increase is about 0.67 acres.

Out of the total farmable lands in the Alamo River watershed, approximately 170,323 acres are planted on any given year with alfalfa and sudan grass (UCCE, 2000). The filter strip for these crops would consist of the same crop and, therefore, there is no conversion of land to non-agricultural use (i.e., the filter strip can be harvested) if filter strips are used for this acreage. Subsequently, there is no adverse impact on this acreage.

Filter strips for the remaining 159,677 acres could result in the conversion of about 1,993 acres ($(1/80) \times 159,677 = 1,993$ acres) to a "non-agricultural use". On the other hand, widened tailwater ditches for this acreage could result in the conversion of about 1,329 acres ($((0.67/80) \times 159,667 = 1,329$ acres). Hence, a combination of filter strips and widened tailwater ditches as BMPs for the 159,677 acres could result in the conversion of 1,661 acres ($((1,993+1,329)/2 = 1,661$ acres) of prime agricultural land to a non-productive use, which equates to 0.50% of all farmable land in the Alamo River watershed, and, therefore, is considered to be less than significant. In practice, this amount of land will most likely not be converted considering that a substantial number of responsible parties will choose to implement those BMPs that are economically feasible (e.g., tailwater drop box with raised grade board, improved drop box with widened weir and raised grade board, and tailwater ditch checks).

b) Conflict with existing zoning for agricultural use, or Williamson Act contract?

No Impact. The BMPs listed in this project would not conflict with any existing zoning for agricultural use, or the California Land Conservation Act known as the Williamson Act.

c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?

No impact. There is no evidence that these BMPs will involve any other changes in the existing environment that could result in the conversion of farmlands to non-agricultural use.

III. Air Quality

Would the project:

a) Conflict with or obstruct implementation of the applicable air quality plan?

No Impact. Neither the Basin Plan amendment, a regulatory action in itself, nor the implementation of BMPs for compliance with the proposed TMDL will conflict with or obstruct the implementation of any air quality regulatory action or plan.

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Less Than Significant Impact. Particulate emissions and ozone in Imperial County exceed Federal and California State Ambient Air Quality Standards. Reportedly, particulate emissions for the most part are due to meteorological conditions, minimal rainfall and dry soil, but they are also created by extensive disturbances of dry soil from agricultural and off-road vehicles. The presence of ozone and the exceedance of the Federal and State ozone standards are the result of transfer pollutants from the South Coast Air Basin, industrial activities in the City of Mexicali, Mexico, where pollutants blow into the Imperial Valley, and from nocturnal air stagnation and ground-based temperature inversions. Inversions lead to poor air quality at night that continues over into early morning.

The enlargement of tailwater ditch cross-sections; the installation of filter strips (e.g., Fiber Mat), sprinkler irrigation systems, drip irrigation systems, and pump-back systems; and the planting a channel with vegetation for compliance with the proposed TMDL may involve the limited use (e.g., one-time use or once-per-year use) of heavy-duty agricultural and construction equipment (e.g., tractors, caterpillars, backhoes, etc.) that are sources of gasoline/diesel byproduct emissions. Similarly, the operation and maintenance of these BMPs may also involve the limited use of heavy-duty agricultural and construction equipment. But as discussed in the previous section, it is unlikely that sedimentation basins, pump-back systems, and pressurized systems will be used by any significant number of farmers for the purpose of compliance with the proposed TMDL because of the cost involved in installing, operating and maintaining the systems. In general the BMPs themselves are not sources of emissions. Further, the Imperial County Air Pollution Control District (ICAPCD) reports that the equipment used for construction and O&M meets emission standards and is exempted from ICAPCD permitting requirements. Therefore, emissions from vehicles used to install, construct, or otherwise operate and maintain the BMPs and the BMPs themselves are not expected to result in significant air quality impacts. The equipment may, however, disturb relatively small areas of farmland with dry soil during installation or O&M of the BMPs. This may result in emissions of particulates (i.e., dust), which by themselves are not considered significant, but they may contribute to a violation of particulate standards. Such contribution is considered to be less than significant.

ATTACHMENT 3.0 CEQA Checklist and discussion

Proposed Amendment to the Water Quality Control Plan for the Colorado River Basin Region to Establish the Alamo River Sedimentation/Siltation Total Maximum Daily Load
February 4, 2002

Page 24 of 48

- c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

Less Than Significant Impact. The contribution attributable to the installation/construction and O&M of the BMPs is not considered cumulatively considerable and, as a consequence, is less than significant.

- d) Expose sensitive receptors to substantial pollutant concentrations?

No Impact. The amount of particulate emissions associated with the installation/construction and O&M of the BMPs will not expose sensitive receptors to any substantial pollution concentrations.

- e) Create objectionable odors affecting a substantial number of people?

No Impact. Objectionable odors are not expected to occur with the implementation of the BMPs.

IV. Biological Resources

Would the project:

- a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Less Than Significant Impact With Mitigation. The agricultural drains tributary to the Alamo River provide beneficial plant and wildlife habitat. A wildlife use survey (Setmire, 1995) found that agricultural drains in the Alamo River watershed support valuable vegetation cover and are used as habitat by numerous sensitive bird species, including the endangered Yuma clapper rail. While birds are the most diverse group utilizing the agricultural drains, other groups are represented as well. The food web for the drains also includes benthic macroinvertebrates, various macroinvertebrates found in the water column, insects, fish, and reptiles. Implementation of BMPs to reduce the amount of silt entering the Alamo River from agricultural return flows will have a positive impact upon biological resources. Silt deposition can result in smothering of some benthic (bottom dwelling) species and burying and smothering of eggs and larvae of fish and aquatic invertebrates. Reduction of the amount of sediment entering the river will have a beneficial impact on those aquatic communities. Implementation of BMPs that decrease sediment loading to the Alamo River are anticipated to have a positive impact on the river's biological resources due to the lower levels of pesticides carried into the river when the sediment load is decreased. Sediment from the agricultural drains serves as a carrier for pesticides such as DDT, DDT metabolites, and

ATTACHMENT 3.0 CEQA Checklist and discussion

Proposed Amendment to the Water Quality Control Plan for the Colorado River Basin Region to Establish the Alamo River Sedimentation/Siltation Total Maximum Daily Load
February 4, 2002

Page 25 of 48

toxaphene. These pesticides accumulate in the sediments and undergo biomagnification through the aquatic food chain. Fish and birds collected from the Alamo River watershed have been found to have high tissue concentrations of these pesticides. Alamo River fish contain pesticide levels exceeding the National Academy of Science (NAS) and U.S Food and Drug Administration (FDA) action levels and are considered hazardous to the wildlife and people who consume them. Toxaphene is a known carcinogen, and like DDT, is an organochlorine pesticide (OCP). OCPs damage cells by disrupting important enzymic and biochemical processes. DDT is well documented to cause a reduction in the reproductive success of birds feeding on fish with high tissue levels of the pesticide (Bennett, 1998). Deleterious reproductive effects of DDT include decreased egg production, eggshell thinning (and thus, breakage), increased chick mortality, and decreased fledgling success. The endangered Yuma clapper rail is one of the species exposed to levels of DDE, a DDT metabolite, that are considered unsafe and is currently at an increased risk of adverse affects (Setmire et al, 1993).

However, sediment removal operations (dredging) at the Alamo River Delta and in other sensitive habitat areas along the Alamo River and the drains may cause reduction of habitat and sensitive species distribution. Implementation of BMPs to reduce sedimentation/siltation in the Alamo River, combined with continued dredging at the current level in the Alamo River Delta may result in removal of habitat utilized by the Yuma clapper rail (Bennett and Ohmart, 1978) and the brown pelican (Carol Roberts, personal communication, 2000). Yuma clapper rails are known to use stands of cattail and bulrush. Species of both cattail and bulrush occur along the edges of the Alamo River and in the Delta region. Paired clapper rails have been found using the stands of cattails along the Alamo River Delta. Brown pelicans are observed utilizing the mudflat habitat in the Delta. Please see Attachment 3A-Natural Environment Study for more information.

Mitigation Measures

Reduction of dredging, as well as timing of dredging, in the delta region would minimize impacts on the species and habitat of concern. Also, it would mitigate on-going violations of the 5 mg/L dissolved oxygen (DO) WQO for the river. Dredging along the Salton Sea delta should be minimized to reduce the likelihood of indirect impacts to Yuma clapper rail, California black rail, burrowing owls, least bittern and sensitive habitat. Timing of dredging will be required to be out of nesting season (September-February).

To reduce this impact to a less than significant impact, and mitigate the DO violations, the proposed Basin Plan amendment will require the IID to submit a technical report pursuant to Section 13267 of the California Water Code describing the measures it proposed to take (e.g., decrease dredging) along with a monitoring program, to ensure that its overall drainage maintenance operations in the Alamo River Watershed do not result in the loss of habitat as a result of implementation of this TMDL and on-going violations of the DO WQO.

ATTACHMENT 3.0 CEQA Checklist and discussion

Proposed Amendment to the Water Quality Control Plan for the Colorado River Basin Region to Establish the Alamo River Sedimentation/Siltation Total Maximum Daily Load
February 4, 2002

Page 26 of 48

- b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Less Than Significant Impact. Reduction of sediment may affect the Alamo River Delta and therefore the emergent wetland and beach areas. The impact to wetland and beach areas could be offset by changes in the current dredging of the river channel.

Mitigation Measures

Reduction of dredging, as well as timing of dredging, in the delta region would minimize impacts on the species and habitat of concern. Also, it would mitigate on-going violations of the 5 mg/L dissolved oxygen (DO) WQO for the river. Dredging along the Salton Sea delta should be minimized to reduce the likelihood of indirect impacts to Yuma clapper rail, California black rail, burrowing owls, least bittern and sensitive habitat. Timing of dredging will be required to be out of nesting season (September-February).

To reduce this impact to a less than significant impact, and mitigate the DO violations, the proposed Basin Plan amendment will require the IID to submit a technical report pursuant to Section 13267 of the California Water Code describing the measures it proposed to take (e.g., decrease dredging) along with a monitoring program, to ensure that its overall dredging operations in the Alamo River Watershed do not result in the loss of habitat as a result of implementation of this TMDL and on-going violations of the DO WQO.

- c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Less Than Significant Impact. Reduction of sediment may affect the Alamo River Delta and therefore the emergent wetland and beach areas. The impact to wetland and beach areas could be offset by changes in the current dredging of the river channel.

Mitigation Measures

Reduction of dredging, as well as timing of dredging, in the delta region would minimize impacts on the species and habitat of concern. Also, it would mitigate on-going violations of the 5 mg/L dissolved oxygen (DO) WQO for the river. Dredging along the Salton Sea delta should be minimized to reduce the likelihood of indirect impacts to Yuma clapper rail, California black rail, burrowing owls, least bittern and sensitive habitat. Timing of dredging will be required to be out of nesting season (September-February).

To reduce this impact to a less than significant impact, and mitigate the DO violations, the proposed Basin Plan amendment will require the IID to submit a technical report pursuant to Section 13267 of the California Water Code describing the measures it proposed to take (e.g., decrease dredging) along with a monitoring program, to ensure that its overall dredging operations in the Alamo River

ATTACHMENT 3.0 CEQA Checklist and discussion

Proposed Amendment to the Water Quality Control Plan for the Colorado River Basin Region to Establish the Alamo River Sedimentation/Siltation Total Maximum Daily Load
February 4, 2002

Page 27 of 48

Watershed do not result in the loss of habitat as a result of implementation of this TMDL and on-going violations of the DO WQO.

- d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

No impact. No impacts are expected to interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

- e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy ordinance?

No impact. No conflicts with any local policies or ordinances protecting biological resources are expected to occur.

- f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No impact. No conflicts with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan are expected to occur. Imperial Irrigation District (IID) is currently working with the U.S. Fish and Wildlife Service and the California Department of Fish and Game on a Habitat Conservation Plan to mitigate for impacts associated with the Colorado River Water Quantification Settlement Agreement.

V. Cultural Resources

Would the project:

- a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

No impact. No impacts will occur to any historical resource as defined in §15064.5.

- b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

No impact. No impacts will occur to any historical resource as defined in §15064.5.

- c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

ATTACHMENT 3.0 CEQA Checklist and discussion

Proposed Amendment to the Water Quality Control Plan for the Colorado River Basin Region to Establish the Alamo River Sedimentation/Siltation Total Maximum Daily Load
February 4, 2002

Page 28 of 48

No impact. Implementation/construction of BMPs is expected to take place on farmland that has been under cultivation for at least the last 60 years and on existing agricultural drains, which do not involve or implicate any known historical, archeological, or paleontological resources, unique sites or unique geologic features.

d) Disturb any human remains, including those interred outside of formal cemeteries?

No impact. The proposed project will not result in any disturbance of human remains, including those interred outside of formal cemeteries.

VI. Geology and Soils

Would the project:

- a) Expose people or structures to potential substantial adverse effects, including the risk of loss injury, or death involving:
 - i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake
 - ii) Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.
 - iii) Strong seismic ground shaking?
 - iv) Seismic-related ground failure, including liquefaction?
 - v) Landslides?

Less Than Significant Impact. Imperial Valley is one of the most active seismic zones in North America, with numerous historic earthquakes. The Valley experiences continuous low-to-moderate level seismic activity. The great San Andreas Fault lies roughly parallel to and less than 10 miles northeast of the Alamo River. A magnitude 8 on the Richter scale, earthquake might occur once per 160 years, a magnitude 7 every 13 years, a magnitude 4 every 10 years, and a magnitude 3 about ten to twenty times per year. The area had two magnitude 6 quakes in 1987. Additionally, some areas in the Valley have a perched groundwater table. The combination of loose, fine sediments, high groundwater, and a potential for seismic activity create a potential for soil liquefaction. Therefore, the potential for structural failure is inherently significant for the area. Yet, the BMPs that are likely to be implemented for compliance with the proposed TMDL will take place primarily on farmland that has been under continued cultivation for over 60 years. They are not individually and cumulatively significantly different than current agricultural practices (e.g., preparing the land for planting) and, therefore, will not result in any significant soil disturbances that would result in the rupture of any known fault, any significant seismic ground shaking, seismic-related ground failure, landslides, subsidence, liquefaction, lateral spreading or collapse.

b) Result in substantial soil erosion or the loss of topsoil?

ATTACHMENT 3.0 CEQA Checklist and discussion

Proposed Amendment to the Water Quality Control Plan for the Colorado River Basin Region to Establish the Alamo River Sedimentation/Siltation Total Maximum Daily Load
February 4, 2002

Page 29 of 48

No Impact. The objective of the proposed project is to control excess delivery of silt and sediment into the Alamo River, which come primarily from irrigated agricultural fields. Implementation of BMPs for compliance with the TMDL will actually reduce soil erosion and the loss of topsoil.

- c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

No Impact. Implementation of BMPs is expected to take place primarily on farmland that has been under continued cultivation for over 60 years. The BMPs that are likely to be implemented pursuant to this project are not structures that would affect or disturb soils to any significant degree such that the soils would become unstable, result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.

- d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

No Impact. Implementation of BMPs is expected to take place primarily on farmland that has been under continued cultivation for over 50 years. They would not affect any soil to any significant degree such that they would create a risk to life or property.

- e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

No Impact. The proposed project does not involve septic tanks or alternative disposal systems.

VII. HAZARDS AND HAZARDOUS MATERIALS

Would the project:

- a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

No Impacts. No hazards to the public or the environment through the routine transport, use, or disposal of hazardous materials will occur.

- b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

No Impacts. No hazards to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment will occur.

ATTACHMENT 3.0 CEQA Checklist and discussion

Proposed Amendment to the Water Quality Control Plan for the Colorado River Basin Region to Establish the Alamo River Sedimentation/Siltation Total Maximum Daily Load
February 4, 2002

Page 30 of 48

- c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

No Impacts. No hazardous emissions, hazardous materials, substances or wastes within one-quarter mile of an existing or proposed school will occur with this Basin Plan amendment.

- d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

No Impacts. Implementation and construction of BMPs do not involve hazardous materials and are expected to take place on existing farmland and drains, which are not identified as hazardous materials sites.

- e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

No Impacts. Implementation and construction of BMPs are expected to take place on existing farmland and drains, not on an airport.

- f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

No Impacts. Implementation and construction of BMPs are expected to take place on existing farmland and drains, not on a airstrip.

- g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

No Impacts. Implementation and construction of BMPs are expected to take place on existing farmland and drains, and will not interfere with an adopted emergency response plan or emergency evacuation plan.

- h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

No Impacts. Implementation and construction of BMPs are expected to take place on existing farmland and drains, and are expected to have no significant risk of loss, injury or death involving wildland fires.

VIII. HYDROLOGY AND WATER QUALITY

Would the project:

- a) Violate any water quality standards or waste discharge requirements?

For the purpose of this subsection, impacts are considered significant if they result in violation of water quality standards or waste discharge requirements. A water quality standard for a water body is defined as a particular beneficial use of the water body and the water quality objective(s) (WQOs) necessary to protect the use. WQOs can be numeric (e.g., the 4-day average of 5 parts per billion (ppb) objective for selenium for the Alamo River and agricultural drains) or narrative (e.g., “the suspended sediment load and suspended sediment discharge rate to surface waters shall not be altered in such a manner as to cause nuisance or adversely affect beneficial uses”). The Regional Board has not adopted numeric WQOs for nutrients for surface waters within the Alamo River Watershed or for the Salton Sea. The Regional Board’s Clean Water Act Section 303(d) List of Impaired Surface Water Bodies (303(d) list) documents the current water quality standards being violated for the Region’s surface waters. Table 3, is based on the Regional Board’s 303(d) List and shows the Salton Sea and the surface waters within the Alamo River Watershed that are not meeting water quality standards, and the pollutants causing the impairments.

Table 3 – Impaired Surface Waters within the Alamo River Watershed

Waterbody Not Meeting WQS	Pollutants of Causing Impairments
Imperial Valley Agricultural Drains	Sediment, Pesticides, Selenium
Alamo River	Sediment, Pesticides, Selenium
Salton Sea	Selenium, Salt, Nutrients

Provisions of the California Water Code authorize the Regional Board to adopt waste discharge requirements (WDRs) for discharges of wastes/pollutants from point and nonpoint sources of pollution into the surface waters within the region. WDRs for discharges from point sources into regional surface waters, which are also national waters, are termed National Pollutant Discharge Elimination System permits.

No Violation of WDRs. Currently, eight (8) wastewater treatment plants (WWTPs) discharge treated domestic wastewater into drains tributary to the Alamo River. Also, six (6) power-generating facilities and one (1) grass-carp hatchery discharge their wastes into the tributaries of the Alamo. All of these WWTPs and facilities have WDRs (NPDES permits) issued by the Regional Board. These point sources of pollutants are an insignificant source of the suspended solids in the Alamo River. Implementation of the TMDL will not cause any of these facilities to violate their permits or water quality standards. Currently, discharges of wastes from nonpoint sources (e.g., agricultural runoff) are not under WDRs.

Less Than Significant Impact With Mitigation. TMDL implementation will result in less than significant water quality changes in the Alamo River Watershed and the Salton Sea. Table 4, shows

ATTACHMENT 3.0 CEQA Checklist and discussion

the typical selenium, salts, and nutrient concentrations found in tilewater, tailwater, and in the Alamo River and Salton Sea. Also, Table 5, below, shows the WQOs for the Alamo River Watershed and the Salton Sea.

Table 4 – Imperial Valley Surface Water Quality¹

	Selenium (µg/L)	Salt (TDS mg/L)	Phosphates (mg/L)	Nitrate (NO ₃ mg/L)
Colorado River (above Imperial Dam)	1-2	500-800	0.08	0.2
Tilewater	8-25	4000-4500	0.03 ²	9 ²
Tailwater	2	800-1000	NA	NA
Alamo River (at the Outlet)	8	2500-2900	0.7	8
Salton Sea (midpoint)	1	38,000-44,000	0.34	0.1
Imperial Valley Drains	15-300 ^{2,3}	1,000-5,000 ⁴		

Notes:
 1. CRWQCB-CRB Trend Monitoring Data. 1980-1993
 2. CRWQCB-CRB. Draft report on Non-Point Source Water Quality Impacts Upon Agricultural Drains within the Colorado River Basin Region. September, 1992.
 3. USGS. Water Resources Investigations 93-4014. Detailed Study of Water, Bottom Sediment, and Biota Associated with Irrigation Drainage in the Salton Sea Area, Ca. 1988-90. Setmire, et.at 1993.
 4. US Bureau of Reclamation. Southern California. Temecula CA. Selenium in water, sediment, and Transplanted Corbicula in Irrigation Drainage and Wildlife use of Drains in the Imperial Valley, CA 1994-1995. Setmire, J; Allen Hurlbert and Carol Roberts. 1999.

Table 5 – Salton Sea and Alamo River Watershed Water Quality Objectives

	4-hr Average Selenium (µg/L)	Annual Average TDS (mg/L)	Phosphates (mg/L)	Nitrate (NO ₃ mg/L)
Imperial Valley Agricultural Drains	5	4000	Narrative	Narrative
Alamo River (at the Delta)	5	4000	Narrative	Narrative
Salton Sea (midpoint)	5	35,000	Narrative	Narrative

Source: Water Quality Control Plan for the Colorado River Basin, 1994; CRWQCB-CRB.

The salt WQO for the Salton Sea, in comparison to both tailwater and tilewater are relatively “fresh flows” for the Salton Sea. Based on research done by the U.S. Bureau of Reclamation, discharges of tailwater constitute approximately 40-45% of the average annual flow in the Alamo River (641,970 AFY) (Jenson et al., 1997). The rest of the river flow is made up by tilewater (about 26%), canal seepage (13%), and operational spills (12%) (Jenson et al., 1997). The quality of the latter two components is essentially the same as irrigation water, which is basically the same as the quality of Colorado River water at Imperial Dam. Based on these percentages, and the concentrations shown above, seepage, operational spills, and discharges of tailwater are currently masking (i.e., diluting) salt, nitrate, and selenium concentrations of tilewater (i.e., the water is polluted by these constituents).

ATTACHMENT 3.0 CEQA Checklist and discussion

Proposed Amendment to the Water Quality Control Plan for the Colorado River Basin Region to Establish the Alamo River Sedimentation/Siltation Total Maximum Daily Load
February 4, 2002

Page 33 of 48

Based on the preceding paragraphs, altering the composition of water in the drains and the river (e.g., reducing tailwater flows) can trigger both positive and negative water quality changes. For example, a slight decrease in tailwater flows into the Alamo River Watershed would reduce the selenium, salt, and nutrient load into the Watershed. The flow reduction would also result in a slight decrease in the loading of the nutrients (mainly phosphorous) and a minor decrease in salt and selenium loads entering the Sea. On the other hand, a reduction in tailwater flows would cause an increase in salt and selenium concentrations in the Salton Sea as there would be less tailwater to dilute the salt and selenium concentrations currently found in tilewater. Discharges of tailwater into the Watershed for the sole purpose of diluting the current pollutants found in tilewater will not achieve compliance with State WQS. It is highly speculative to quantify how much flows in the Watershed may or will be reduced as a consequence of this project. Based on the analysis provided in the Introduction Section of this document, and that Imperial Valley farmers and IID have indicated that presently economically feasible steps are being taken to conserve water, in the absence of some other parties contributing additional funds, it can be concluded that the reduction, if any, will be less than significant. Subsequently, significant impacts on water quality (i.e., significant increases of pollutant concentrations in the Alamo River Watershed and the Sea) are unlikely as a result of implementing the proposed TMDL.

TMDL implementation (i.e., a reduction of sediment load) has the potential to alter the wildlife habitat currently provided and created by the sediment deposited by the Alamo River in areas surrounding its Delta with the Salton Sea. For the last 70 years, the IID has been conducting dredging operations within the Alamo River Watershed, essentially year-round to remove sediment/silt from these surface waters. The dredging operations in the drains are carried out to facilitate the flow of wastewater in the drains and prevent impacts that otherwise stagnant water conditions may cause on agricultural fields (e.g., raising the uppermost groundwater level, which could “drown” field crops). Reportedly, the dredging operations in the Alamo River near the Delta are necessary to prevent the current silt loading from creating adverse impacts (e.g., flooding) in adjacent areas by “damming” the Delta with sediment. For 1999, the IID removed about 475,000 tons of sediment annually from the Ag Drains in the Alamo River Watershed (IID, 2000) and about 25,000 tons of sediment annually from the Alamo River downstream of Garst Road Bridge, near the Delta with the Sea (IID, 2000). Implementation of the proposed TMDL is expected to reduce suspended sediment loading in the Alamo River at its outlet with the Salton Sea (i.e., at the Delta) by about 52% in three phases, over a 13-year period. The TMDL is necessary to address the water quality impacts caused by the insoluble pesticides (e.g., DDT and its metabolites) being transported by suspended sediments in the agricultural drains and the Alamo River.

The reduction of silt at the Delta coupled with the current IID dredging operations in the Alamo River Watershed, and in particular near the Delta, could result in a significant decrease in the inputs of silt/sediment at the Delta. These dredging operations have other water quality impacts, short-term and otherwise. For one, the drain dredging operations are responsible for at least 10% of the total sediment load in the river. They also result in significant increases in turbidity in these surface waters, which results in violations of the current dissolved oxygen WQO for the surface waters. Similarly, the current dredging operations in the Alamo River Delta deplete the DO.

ATTACHMENT 3.0 CEQA Checklist and discussion

Proposed Amendment to the Water Quality Control Plan for the Colorado River Basin Region to Establish the Alamo River Sedimentation/Siltation Total Maximum Daily Load
February 4, 2002

Page 34 of 48

Mitigation Measure

To reduce this impact to a less than significant impact, and mitigate the DO violations, the proposed Basin Plan amendment will require the IID to submit a technical report pursuant to Section 13267 of the California Water Code describing the measures it proposes to take (e.g., decrease dredging) along with a monitoring program, to ensure that its overall dredging operations in the Alamo River Watershed do not result in the loss of habitat as a result of implementation of this TMDL and on-going violations of the DO WQO.

- b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support the existing land uses or planned uses for which permits have been granted)?

No Impact. This project does not involve the extraction or recharge of groundwater supplies. The surface waters involved with this project do not recharge any groundwater aquifers that are of significant value in terms of their beneficial uses.

- c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?

No Impact. The purpose of this project is to eliminate excess delivery of silt/sediment to surface waters by implementing BMPs that minimize erosion and sediment deposition. Implementation of the BMPs for compliance with the TMDL (i.e., for silt/sediment reduction) will not result in an alteration of the course or drainage patterns of any surface water within the Alamo River Watershed.

- d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

No Impact. This project does require the alteration of area drainage patterns to comply with TMDL allocations. Alteration of drainage patterns (e.g., through re-routing surface waters, increased paved areas, or increased agricultural runoff) is not a foreseeable method of compliance with the TMDL. The project will not result in a rate or amount increase of surface runoff in any manner that would result in flooding on- or off-site.

- e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

No Impact. The proposed project will not result in the contribution of any additional runoff or create any new sources of polluted runoff.

- f) Otherwise substantially degrade water quality?

ATTACHMENT 3.0 CEQA Checklist and discussion

Proposed Amendment to the Water Quality Control Plan for the Colorado River Basin Region to Establish the Alamo River Sedimentation/Siltation Total Maximum Daily Load

February 4, 2002

Page 35 of 48

Less Than Significant Impact. Degradation, for the purposes of this subsection, consists of the lowering of water quality conditions in the Alamo River Watershed and Salton Sea. Substantial degradation is degradation that threatens violation of WQOs or results in a substantial reduction in the capacity of surface waters to assimilate pollutants. The goal of this project is to improve water quality conditions in the Alamo River Watershed, which is already degraded to the extent that it is impaired by silt/sediment, pesticides, and selenium (i.e., lacks assimilative capacity for these pollutants). These surface waters also carry nutrients and salts that are causing eutrophic conditions and salt impairments in the Salton Sea, primarily because of the Sea is a closed basin. Further magnifications in the aforementioned impairments have been addressed under Item No. 8a of this document.

As this watershed system is manmade, its pollutant assimilative capacity in general is mainly artificial and limited by the quality of the discharges of waste into the system. The discharges, nevertheless, are of sufficient quality in other respects that they allow the Alamo River and its tributaries to still have assimilative capacity for other pollutants (e.g., oxygen depleting pollutants). As required by state laws and regulations, the Regional Board will continue to regulate point sources of pollution through WDRs to ensure that degradation of water quality from these sources is mitigated and consistent with State and Federal antidegradation policies. It will also continue to use its tiered approach to control degradation caused by nonpoint sources. This project is consistent with that approach, and its implementation is not likely to result in any additional substantial degradation of water quality. The Regional Board will be implementing a comprehensive water quality monitoring program as part of this project to track water quality changes in the Alamo River, and will be implementing a comprehensive water quality monitoring program for the Salton Sea as part of its overall watershed management activities. Further, the proposed Basin Plan amendment requires that the IID implement a comprehensive water quality program in the drains to track water quality changes in the drains.

Because over 96% of the flows in the Alamo River and the Ag Drains are from agricultural discharges, significant changes in the volume and/or quantity of these agricultural discharges could have significant effects on the volume and/or quality of the flows in the Ag Drains and the Alamo River. The 1987 through 1996 average annual discharges to the New River, Alamo River and Ag Drains are summarized by source in Table 6, below.

Table 6: 1987-1996 Average Annual Discharges to the New River, Alamo River, and Imperial Valley Drains by Source

Source	Acre-feet	Percent
Operational Spill	123,018	12
Tailwater	479,661	48
Tilewater	261,278	26
Seepage	128,165	13
Total	992,122	100

Source: Jenson, M.E., Walter, I.H., June 1997

ATTACHMENT 3.0 CEQA Checklist and discussion

An operational spill is the quantity of fresh water that reaches the terminal end of an irrigation canal, but is not applied to the fields, and therefore is diverted into an Ag Drain. Tailwater, or surface runoff, is irrigation water that does not percolate into the soil, and exits the lower end of the field into the drain. Tailwater tends to erode fields and thus acquire silt and sediments as it crosses and exits a field. Tilewater, or subsurface drainage, is water that has percolated through the soil, but is not absorbed by crops. Tilewater flushes salts from the soil. This highly saline water accumulates in tile lines beneath the fields, wherein it is transported to drains by gravity flow or a sump system. Seepage denotes subsurface water that enters a drain due to a hydraulic gradient resulting primarily from loosening irrigation canals.

Because most sediment-control BMPs work by reducing the rate of surface runoff, the BMPs that are likely to be implemented were analyzed to determine the effects that they might have on the volume of agricultural tailwater discharges. Table 7, below, summarizes the result of that analysis.

Table 7: BMP Effects on Volume of Agricultural Tailwater Discharges

Best Management Practice	Potential for Tailwater Flow Reduction
Imperial Irrigation District Regulation No. 39	Negligible ^a
Tailwater Drop Box with Raised Grade Board	Negligible ^a
Improved Drop Box with Widened Weir and Raised Grade Board	Negligible ^a
"Pan Ditch" – Enlarged Tailwater Ditch Cross Section	Negligible
Tailwater Ditch Checks or Check Dams	Minor
Field to Tailditch Transition	Negligible
Furrow Dikes (a.k.a. C-Taps)	Minor ^a
Filter Strips	Negligible ^b
Reduced Tillage	Negligible
Channel Vegetation/ Grassed Waterway	Negligible
Irrigation Canal or Lateral	Negligible
Notes:	
a= Jones and Stokes Associates, 1996	
b=USDA, 1996	

As Table 7 indicates, the potential effect of the widespread implementation of one or more of these BMPs on agricultural discharge volumes would be a minor to negligible reduction in the volume of tailwater discharged to the Ag Drains and the Alamo River.

- g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

No Impact. Housing developments are neither required by nor expected to result from this project. Therefore, the project will not place housing within a 100-year flood hazard area.

ATTACHMENT 3.0 CEQA Checklist and discussion

Proposed Amendment to the Water Quality Control Plan for the Colorado River Basin Region to Establish the Alamo River Sedimentation/Siltation Total Maximum Daily Load
February 4, 2002

Page 37 of 48

h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?

No Impact. This project does not require construction of any structures which would impede or redirect flood flows, and these types of structural controls are not expected to be implemented for compliance with the proposed TMDL.

i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

No impact No levees or dams will be constructed as a result of this project, and no levees or dams will be affected by this project.

j) Inundation by seiche, tsunami, or mudflow?

No impact This project will not expose people or structures to any increased risk of inundation by seiches, tsunamis or mudflows.

IX. Land Use and Planning

Would the project:

a) Physically divide an established community?

No Impacts. The Basin Plan amendment itself will not result in any land use or planning impacts.

b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

No Impacts. The Basin Plan amendment itself will not result in any land use or planning impacts.

c) Conflict with any applicable habitat conservation plan or natural community conservation plan?

No Impacts. The Basin Plan amendment itself will not result in any habitat conservation plan or natural community conservation plan.

X. Mineral Resources

Would the project:

ATTACHMENT 3.0 CEQA Checklist and discussion

Proposed Amendment to the Water Quality Control Plan for the Colorado River Basin Region to Establish the Alamo River Sedimentation/Siltation Total Maximum Daily Load
February 4, 2002

Page 38 of 48

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

No Impacts. The proposed project and implementation measures will not result in any mineral resources impacts. Implementation and construction of BMPs is expected to take place on farmland that has been under cultivation for at least the last 60 years and on existing agricultural drains.

b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

No Impacts. No known mineral resources can be affected by the proposed actions.

XI. Noise

Would the project result in:

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan ordinance, or applicable standards of other agencies?

No Impact. The proposed project and its associated implementation of BMPs will not result in noise impacts. The BMPs themselves are not sources of any significant noise. Even though construction/installation of some of the BMPs may involve the temporary use of farming and construction equipment (e.g., tractors, backhoe, and caterpillars) that may emit noise at levels greater than 60 decibels, the construction/installation of the BMPs are set to take place on farmland that is not typically surrounded by sensitive receptors. Therefore, the project will not result in the generation of, or exposure of persons residing or working in the project area to, excessive noise levels or excessive groundborne vibration.

b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

No Impact. The proposed project and its associated implementation of BMPs will not result in excessive groundborne vibration or noise levels.

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

No Impact. The proposed project and its associated implementation of BMPs will not result in noise impacts. The BMPs themselves are not sources of any significant noise.

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

ATTACHMENT 3.0 CEQA Checklist and discussion

Proposed Amendment to the Water Quality Control Plan for the Colorado River Basin Region to Establish the Alamo River Sedimentation/Siltation Total Maximum Daily Load
February 4, 2002

Page 39 of 48

No Impact. The proposed project and its associated implementation of BMPs will not result in noise impacts. The BMPs themselves are not sources of any significant noise.

- e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The proposed project and its associated implementation of BMPs will not result in noise impacts. The BMPs themselves are not sources of any significant noise.

- f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The proposed project and its associated implementation of BMPs will not result in noise impacts. The BMPs themselves are not sources of any significant noise. Even though construction/installation of some of the BMPs may involve the temporary use of farming and construction equipment (e.g., tractors, backhoe, and caterpillars) that may emit noise at levels greater than 60 decibels, the construction/installation of the BMPs are set to take place on farmland that is not typically surrounded by sensitive receptors.

XII. Population and Housing

Would the project:

- a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

No Impact. The proposed project is not growth inducing.

- b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

No Impact. The proposed project will not result in the displacement of any housing.

- c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

No Impact. The proposed project will not result in the displacement of any people.

XIII. Public Services

ATTACHMENT 3.0 CEQA Checklist and discussion

Proposed Amendment to the Water Quality Control Plan for the Colorado River Basin Region to Establish the Alamo River Sedimentation/Siltation Total Maximum Daily Load
February 4, 2002

Page 40 of 48

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

- Fire protection?
- Police protection?
- Schools?
- Parks?
- Other public facilities?

No Impact. The proposed project and associated implementation of BMPs will not exert a demand on existing public services or require the provisions of new public services.

XIV. Recreation

Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

No Impact. The proposed Basin Plan amendment and associated implementation of BMPs do not involve and will not cause the use or deterioration of recreational activities.

Does the project include recreational facilities or require the construction or expansion or recreational facilities which might have an adverse physical effect on the environment?

No Impact. The proposed Basin Plan amendment and associated implementation of BMPs do not involve and will not cause the construction of recreational activities.

XV. Transportation/Traffic

Would the project:

- a) Cause an increase in traffic, which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?

Less Than Significant Impact. The proposed Basin Plan amendment itself does not have any traffic impacts. Installation/construction of the BMPs by responsible parties will likely result in additional vehicle trips on existing streets, roads, and highways. This is an additional traffic load on existing streets, roads, and highways for Riverside and Imperial Counties. Since the majority of agriculture occurs in the rural areas of Imperial County, the potential project-related increase in traffic is insignificant, not cumulatively considerable, and will not affect street, road, or highway

ATTACHMENT 3.0 CEQA Checklist and discussion

Proposed Amendment to the Water Quality Control Plan for the Colorado River Basin Region to Establish the Alamo River Sedimentation/Siltation Total Maximum Daily Load
February 4, 2002

Page 41 of 48

capacities, change traffic patterns, result in inadequate emergency access, affect parking capacity in the project area, or conflict with adopted traffic policies and plans for the area.

b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?

No Impact. Transportation and movement of farming equipment is typical in the streets, roads, and highways serving the area where BMPs are to be implemented.

c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

No Impact. Transportation and movement of farming equipment is typical in the streets, roads, and highways serving the area where BMPs are to be implemented.

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

No Impact. Transportation and movement of farming equipment is typical in the streets, roads, and highways serving the area where BMPs are to be implemented.

e) Result in inadequate emergency access?

No Impact.

f) Result in inadequate parking capacity?

No Impact.

g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

No Impact.

The proposed Basin Plan amendment itself does not have any traffic impacts. Installation/construction of the BMPs by responsible parties will likely result in additional vehicle trips on existing streets, roads, and highways. This is an additional traffic load on existing streets, roads, and highways for Riverside and Imperial Counties. Since the majority of agriculture occurs in the rural areas of Imperial County, the potential project-related increase in traffic is insignificant, not cumulatively considerable, and will not affect street, road, or highway capacities, change traffic patterns, result in inadequate emergency access, affect parking capacity in the project area, or conflict with adopted traffic policies and plans for the area. Transportation and movement of farming equipment is typical in the streets, roads, and highways serving the area where BMPs are to

ATTACHMENT 3.0 CEQA Checklist and discussion

Proposed Amendment to the Water Quality Control Plan for the Colorado River Basin Region to Establish the Alamo River Sedimentation/Siltation Total Maximum Daily Load
February 4, 2002

Page 42 of 48

be implemented. No increases in hazards are associated with the additional trips. Therefore, no impacts have been identified and no mitigation measures are necessary.

XVI. Utilities and Service Systems

Would the project:

- a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

No Impact. The proposed amendment and associated BMPs do not exceed wastewater treatment requirements.

- b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

No Impact. The proposed Basin Plan amendment and associated BMPs do not require construction or expansion of water supply or wastewater treatment facilities or service systems.

- c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

No Impact. The proposed Basin Plan amendment and associated BMPs do not require construction or expansion of water supply or wastewater treatment facilities or service systems.

- d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

No Impact. The proposed Basin Plan amendment and associated BMPs do not change the existing entitlements and resources.

- e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

No Impact. The proposed Basin Plan amendment and associated BMPs do not require construction or expansion of water supply or wastewater treatment facilities or service systems.

- f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

No Impact. Solid waste disposal should be reduced by implementation of the BMPs.

ATTACHMENT 3.0 CEQA Checklist and discussion

Proposed Amendment to the Water Quality Control Plan for the Colorado River Basin Region to Establish the Alamo River Sedimentation/Siltation Total Maximum Daily Load
February 4, 2002

Page 43 of 48

g) Comply with federal, state, and local statutes and regulations related to solid waste?

No Impact. The proposed Basin Plan amendment and associated BMPs do not require construction or expansion of water supply or wastewater treatment facilities or service systems.

XVII. Mandatory Findings of Significance

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? Based on currently planned projects and existing data, the implementation of BMPs and the corresponding sediment reduction do not show evidence of degradation of the quality of the environment, substantial reduction of habitat, fish or wildlife species, or it's population.

b) Does the project have impacts that are individually limited, but cumulatively considerable ("cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)? Based on currently planned projects and existing data, the implementation of BMPs and the corresponding sediment reduction do not show evidence of cumulative considerable impacts.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? Based on currently planned projects and existing data, the implementation of BMPs and the corresponding sediment reduction do not show evidence of substantial adverse effects on human beings either directly or indirectly.

XVIII. ALTERNATIVES DISCUSSION

A. No Project Alternative

The "No Project" alternative would be no action by the Regional Board to adopt a TMDL with implementation measures and monitoring program. This alternative would not meet the purpose of the project, which is to correct ongoing violations of the Basin Plan water quality objectives applicable to sediment, and beneficial use impairments resulting from on-going violations. This alternative would result in continuing water quality standards violations, threats to public health, and noncompliance with the requirements of the Clean Water Act. It is precisely because of these problems that law dictates a regulatory action. Therefore, the "No Project" alternative is not acceptable.

B. Preferred Alternative

ATTACHMENT 3.0 CEQA Checklist and discussion

Proposed Amendment to the Water Quality Control Plan for the Colorado River Basin Region to Establish the Alamo River Sedimentation/Siltation Total Maximum Daily Load
February 4, 2002

Page 44 of 48

The "Preferred Alternative" has been the basis for all discussions in the TMDL, Basin Plan Amendment and CEQA information. The proposed project calls for attainment of interim numeric targets and corresponding load allocations. It is also based on the three-tiered approach to nonpoint source water quality control, which is consistent with the Plan for California's Nonpoint Source Pollution Control Program. The three tiers include: (1) self-determined NPS management, (2) regulatory encouraged NPS management, and (3) effluent limitations. The proposed Implementation Plan utilizes a combination of self-determined actions, including development and implementation of the Imperial County Farm Bureau Voluntary Program; and regulatory-encouraged actions, including the requirement that the Imperial Irrigation District develop and implement a water quality monitoring program, a sediment management program, and mitigate for associated impacts. There are considerable reasons to believe that compliance with the load allocations of this TMDL may be achieved using the proposed regulatory-encouraged approach called for in the Implementation Plan.

C. Alternative 2- Lower Numeric target

This alternative is defined as the proposed project with a lower numeric target (i.e. lower target suspended solids (TSS) concentrations). Meeting this lower numeric target would require a lower total load, and thus lower load allocations to the agricultural dischargers in the watershed. The numeric target that would fit this alternative is the TSS concentration proposed by the National Academy of Sciences (NAS) as being protective of aquatic communities. NAS proposed that a TSS concentration of 80 mg/l or below should provide a moderate level of protection for aquatic communities (NAS, 1972). This target corresponds to about an 80% reduction of the current suspended solids concentration of the Alamo River at its outlet (377 mg/l). The environmental impacts associated with this alternative would be similar to the impacts of the proposed project, but the economic impacts to agriculture would be much greater as it would require the implementation of the most expensive BMPs.

D. Alternative 3- Increased Regulatory Oversight

With Alternative 3 the Regional Board could utilize a TMDL implementation program with greater regulatory oversight, including the adoption of: a conditional waiver, a general permit, effluent limitations for the Imperial Irrigation District, and/or effluent limitations for individual responsible parties. Immediately implementing the TMDL at a high level of regulatory oversight could be unnecessarily burdensome on the regulated community, and unnecessarily exhaustive of limited Regional Board staff resources. Table 8 summarizes the Alternatives.

Table 8 Alternatives Summary

Alternatives	Agricultural Resources	Biological Resources	Water Quality	Objectives Met Faster/Slower
No Project	None	Adverse Impacts	Adverse Impacts	Objectives not met
Preferred	Less than significant	Less than significant	Less than	Meet Objectives

ATTACHMENT 3.0 CEQA Checklist and discussion

Proposed Amendment to the Water Quality Control Plan for the Colorado River Basin Region to Establish the Alamo River Sedimentation/Siltation Total Maximum Daily Load
February 4, 2002

Alternative			significant	
Alternative 2	Less than significant	Less than significant	Less than significant	Meet Objectives same time frame
Alternative 3	Less than significant	Less than significant	Less than significant	Meet Objectives faster time frame

ATTACHMENT 3.0 CEQA Checklist and discussion

Proposed Amendment to the Water Quality Control Plan for the Colorado River Basin Region to Establish the Alamo River Sedimentation/Siltation Total Maximum Daily Load
February 4, 2002

Page 46 of 48

REFERENCES

Baumhardt, R.L., C.W. Wendt, and J. W. Keeling. 1993. Tillage and furrow diking effects on water balance and yields of sorghum and cotton. *Soil Science Society of America Journal*, 57:1077-1083.

Bennett, Jewel. 1998. "Biological Effects of Selenium and other Contaminants Associated with Irrigation Drainage in the Salton Sea Area, California 1992-1994." U.S. Department of Interior National Irrigation Water Quality Program Information Report No. 4. U.S. Department of the Interior, National Irrigation Water Quality Program. Washington, DC.

Bennett, William W. and Robert D. Ohmart. 1978. "Habitat Requirements and Population Characteristics of the Clapper Rail (*Rallus longirostris yumanensis*) in the Imperial Valley of California." Submitted to University of California, Lawrence Livermore Laboratory.

Brown, M.J., J.A. Bondurant, and C.E. Brockway. 1981. Ponding surface drainage water for sediment and phosphorus removal. *Transactions of the America Society of Agricultural Engineers*, 24(6):1478-1481.

California Department of Fish and Game. 2001. California Natural Diversity Data Base (NDDDB): Data Base Information for Niland, Westmoreland East, Wiest, Alamorio, Holtville East, Holtville West, Bond's Corner, and Calexico Quadrangles. State of California Resources Agency. Sacramento, California.

California, State of, 2001. California Environmental Quality Act Public Resources Code Division 13. Environmental Quality.

Carter, D.L., and R.E. Berg. 1991. Crop sequences and conservation tillage to control furrow erosion and increase farmer income. *Journal of Soil and Water Conservation*, 46(2):139-142.

Cocke, M. 2001. Personal Oral Communication between Mr. Nadim Zeywar, CRWQCB-R7, and Mr. Mark Cocke, Northern California NRCS Office by telephone (Phone #: 530-792-5663).

Costa-Pierce, B.A., R. Riedel, L. Helvenston, J. Butler, and S. Hurlbert. 2000. "Fisheries Ecology of the Salton Sea." Oral Presentation at the Salton Sea Symposium, Desert Hot Springs, CA.

Finco, M.V. 1999. Watershed Scale Sediment Yield Estimation from Surface Irrigated Agriculture: Imperial Valley, California. University of Utah, Department of Geography, Utah.

Imperial Irrigation District. 1978. Imperial Irrigation District water quality management plan. El Centro, CA.

ATTACHMENT 3.0 CEQA Checklist and discussion

Proposed Amendment to the Water Quality Control Plan for the Colorado River Basin Region to Establish the Alamo River Sedimentation/Siltation Total Maximum Daily Load
February 4, 2002

Page 47 of 48

Imperial Irrigation District, 2000. Existing Water Quality Projects. A List of Existing Water Quality Projects in the Imperial Valley generated by the staff of the IID and presented to the Silt TMDL TAC.

Imperial Irrigation District and Metropolitan Water District of Southern California, 2000. Water Conservation Program, Final Program Construction Report, IID Water Resources Unit.

Jenson, M.E. and Walter, I.A. 1997. Assessment of 1986-1997 Water Use by the Imperial Irrigation District using Water Balance and Cropping Data. Special Report Prepared for the U.S. Bureau of Reclamation. Boulder City, Nevada.

Jones & Stokes Associates. 1996. List of Agricultural Best Management Practices for the Imperial Irrigation District. Jones & Stokes Associates, Sacramento, CA.

Lemly, A. Dennis. 1999. "Selenium Transport and Bioaccumulation in Aquatic Ecosystems: A Proposal for Water Quality Criteria Based on Hydrologic Units." Ecotoxicology and Environmental Safety. 42:150-256.

Limacher, Frank. 2000. Alamo River Sediment TMDL Economic Assessment. State Water Resources Control Board, Sacramento, CA.

National Academy of Sciences, National Academy of Engineering (NAS). 1972. Water Quality Criteria, 1972. U.S. Government Printing Office, Washington D.C.

Roberts, Carol. 2001. Email (02/05/01) to Teresa Newkirk, Regional Water Quality Control Board, Colorado River Basin Region.

Setmire, James, R.A. Schroeder, J.N. Densmore, S.L. Goodbred, D.J. Audet, and W.R. Radke. 1993. "Detailed Study of Water Quality, Bottom Sediment, and Biota Associated with Irrigation Drainage in the Salton Sea Area, California 1988-1990." U.S. Geological Survey Water Resources Investigation Report 93-4014. U.S. Geological Survey. Sacramento, CA.

Setmire, James. 1995. "Selenium in Water, Sediment, and Transplanted *Corbicula* in Irrigation Drainage and Wildlife Use of Drains in the Imperial Valley, California 1994-1995." U.S. Bureau of Reclamation. Temecula, CA.

Sojka, R.E. 1996. Management Options for Control of Irrigation-Induced Erosion: USDA/Agricultural Research Service, Northwest Irrigation and Soils Research Laboratory, Kimberly, ID.

United States Department of Agriculture. 1996. Natural Resources Conservation Service. Field Office Technical Guide, Section IV. Davis, CA.

ATTACHMENT 3.0 CEQA Checklist and discussion

Proposed Amendment to the Water Quality Control Plan for the Colorado River Basin Region to Establish the Alamo River Sedimentation/Siltation Total Maximum Daily Load
February 4, 2002

United States Department of Agriculture. 1992. West Stanislaus sediment reduction plan. Soil Conservation Service. Water Resources Planning Staff. Davis, CA.