#### 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 incorporate the New River Pathogen 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 a New River Pathogen Total Maximum Daily Load. The Secretary of Resources has certified the basin planning process as exempt from certain requirements under the California Environmental impact report [Title 14, California Code of Regulations (CCR), 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: New River Pathogen Total Maximum Daily Load; Draft Resolution; Basin Plan Amendment; CEQA Checklist; and Economic Analysis of the New River Pathogen 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 3777(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 New River Pathogen Total Maximum Daily Load

Lead agency name and address: <u>California Regional Water Quality Control Board, Colorado River Basin Region</u> <u>73-720 Fred Waring Drive, Suite 100</u> Palm Desert, CA 92260

Contact person and phone number: Joan Stormo, Basin Planning Unit Chief (760) 776-8982

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: <u>Not Applicable</u>

# 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 numeric water quality objectives that apply to bacteria. The objectives are being violated and the beneficial uses are being impaired because of discharges of raw sewage, improperly treated sewage, and other wastes from the Mexicali metropolitan area in Mexico. They are also being violated because of discharges of treated, but undisinfected wastewater from some treatment plants in Imperial County. The proposed Basin Plan amendment will establish the New River Pathogen Total Maximum Daily Load (TMDL) and an Implementation Plan to address the impairments of the river. The Implementation Plan essentially requires that: (1) wastewater treatment facilities discharging undisinfected wastewater into the river and/or its tributaries provide effluent disinfection; and (2) the U.S. Government take appropriate measures for the New River at the International Boundary 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.

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

#### ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

	Aesthetics		Agriculture Resources	$\checkmark$	Air Quality
✓	Biological Resources		Cultural Resources	$\checkmark$	Geology / Soils
$\checkmark$	Hazards & Hazardous Materials		Hydrology / Water Quality		Land Use / Planning
	Mineral Resources	$\checkmark$	Noise		Population
	Public Services		Recreation		Transportation / Traffic
	Utilities / Service Systems		Mandatory Findings of Signific	ance	

#### **EVALUATION OF ENVIRONMENTAL IMPACTS** I.

		Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<u>1.</u> a)	AESTHETICS – Would the project: Have any substantial adverse effect on a scenic vista?				$\checkmark$
b)	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				$\checkmark$
c)	Substantially degrade the existing visual character or quality of the site and its surroundings?				$\checkmark$
d)	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?				$\checkmark$
2. A impacts lead age and Site Conserv agricult a)	AGRICULTURE RESOURCES In determining whether to agricultural resources are significant environmental effects, encies may refer to the California Agricultural Land Evaluation Assessment Model (1997) prepared by the California Dept. of vation as an optional model to use in assessing impacts on ure and farmland. Would the project: 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?				✓
b)	Conflict with existing zoning for agricultural use, or Williamson Act?				$\checkmark$
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?				$\checkmark$
3. A establist control determi a)	AIR QUALITY Where available, the significance criteria hed by the applicable air quality management or air pollution district may be relied upon the make the following nations. Would the project: Conflict with or obstruct implementation of the applicable air quality plan?				$\checkmark$
b)	Violate any air quality standard or contribute substantially to an existing or projected air quality violation?			$\checkmark$	
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)?				$\checkmark$
d)	Expose sensitive receptors to substantial pollutant concentrations?				$\checkmark$
e)	Create objectionable odors affecting a substantial number of people?				$\checkmark$

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			Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<u>4.</u>	<u> </u>	BIOLOGICAL RESOURCES Would the project: 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?		<b>√</b>		
	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?				$\checkmark$
	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?				$\checkmark$
	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?				$\checkmark$
	e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy ordinance?				$\checkmark$
	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?				$\checkmark$
<u>5.</u>	a)	<u>CULTURAL RESOURCES</u> Would the project: Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?				$\checkmark$
	b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?				$\checkmark$
	c)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				$\checkmark$
	d)	Disturb any human remains, including those interred outside of formal cemeteries?				$\checkmark$
<u>6.</u>	( a)	<ul> <li><u>GEOLOGY AND SOILS</u> Would the project:</li> <li>Expose people or structures to potential substantial adverse effects, including the risk of loss injury, or death involving: <ul> <li>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?</li> <li>Refer to Division of Mines and Geology Special Publication 42</li> </ul></li></ul>				✓ ✓
		<ul><li>ii) Strong seismic ground shaking?</li><li>iii) Seismic-related ground failure, including liquefaction?</li></ul>				<ul> <li>✓</li> </ul>

#### ATTACHMENT 3.0 CEQA Checklist and discussion

Proposed Amendment to the Water Quality Control Plan for the Colorado River Basin Region to Establish the New River Pathogen Total Maximum Daily Load

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		Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
	iv) Landslides?				$\checkmark$
b)	Result in substantial soil erosion or the loss of topsoil?				$\checkmark$
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?			$\checkmark$	
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?				$\checkmark$
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?				$\checkmark$
<u>7. H</u>	HAZARDS AND HAZARDOUS MATERIALS Would the				
a)	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			$\checkmark$	
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?		$\checkmark$		
c)	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?		$\checkmark$		
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?				$\checkmark$
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?				$\checkmark$
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?				$\checkmark$
g)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				$\checkmark$
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?				$\checkmark$

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		Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<u>8.</u> a)	<u>HYDROLOGY AND WATER QUALITY</u> Would the project: Violate any water quality standards or waste discharge requirements?				$\checkmark$
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)?				$\checkmark$
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?				$\checkmark$
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?				$\checkmark$
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?				$\checkmark$
f)	Otherwise substantially degrade water quality?				$\checkmark$
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?				$\checkmark$
h)	Place within a 100-year flood hazard area structures which would impede or redirect flood flows?				$\checkmark$
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?				$\checkmark$
j)	Inundation by seiche, tsunami, or mudflow?				$\checkmark$
<u>9.</u> a)	LAND USE AND PLANNING Would the project: Physically divide an established community?				$\checkmark$
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?				
c)	Conflict with any applicable habitat conservation plan or natural community conservation plan?				$\checkmark$

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		Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<u>10.</u>	MINERAL RESOURCES Would the project:				
а	that would be of value to the region and the residents of the state?				V
t	) 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?				$\checkmark$
<u>11.</u> a	<u>NOISE</u> Would the project result in: 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?				$\checkmark$
ť	) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?				$\checkmark$
C	A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?				$\checkmark$
Ċ	) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?		$\checkmark$		
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?				$\checkmark$
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?				$\checkmark$
<u>12.</u> a	<ul> <li><u>POPULATION AND HOUSING</u> Would the project:</li> <li>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)?</li> </ul>				$\checkmark$
t	) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				$\checkmark$
C	) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				$\checkmark$

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		Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<u>13.</u> a)	<u>PUBLIC SERVICES</u> 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:				$\checkmark$
	Fire protection?				$\checkmark$
	Police protection?				$\checkmark$
	Schools?				$\checkmark$
	Parks?				V V
14. F	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?				$\checkmark$
b)	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?				$\checkmark$
<u>15. 7</u> a)	<u>CRANSPORTATION / TRAFFIC</u> Would the project: 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)?				$\checkmark$
b)	Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?				$\checkmark$
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?				$\checkmark$
d)	Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				$\checkmark$
e)	Result in inadequate emergency access?				$\checkmark$
f)	Result in inadequate parking capacity?				$\checkmark$
g)	Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?				$\checkmark$

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		Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<u>16.</u>	UTILITIES AND SERVICE SYSTEMS Would the project:				
a)	Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				$\checkmark$
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?				$\checkmark$
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?				$\checkmark$
d)	Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?				$\checkmark$
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?				$\checkmark$
f)	Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?				$\checkmark$
g)	Comply with federal, state, and local statutes and regulations related to solid waste?				$\checkmark$
17 ] a)	MANDATORY FINDINGS OF SIGNIFICANCE 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?				$\checkmark$
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.)?				$\checkmark$
c)	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?				$\checkmark$

	Less Than		
Potentially	Significant	Less Than	
Significant	with	Significant	No
Impact	Mitigation	Impact	Impact

## **II. DETERMINATION**

On the basis of this initial evaluation:

- X I find that the proposed Basin Plan amendment could not have a significant effect on the environment.
- 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 A. GRUENBEG Executive Officer Date

## 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. A description of the project precedes the major areas of the Environmental Checklist.

As explained in the CEQA Checklist, the discussion that follows is also intended to fulfill the requirements of Title 23, section 3777, subdivision (a)(1) through (3); Public Resources Code section 21159, subdivision (a)(1) through (3); and 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 reasonably foreseeable feasible mitigation measures relating to 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 New River Pathogen Total Maximum Daily Load (TMDL) and require implementation of actions to address the impairments that pathogens have on river water quality. Also, and as required by the California Water Code (CWC), the proposed amendment also incorporates an implementation plan for the TMDL that includes: (a) a description of the actions to be taken to achieve the TMDL, including recommend actions; (b) proposed time schedules for actions to be taken, and (c) proposed surveillance to be taken to assure compliance with the TMDL (CWC § 13242). The implementation plan for the TMDL is hereafter referred to as "TMDL Implementation Plan."

The Basin Plan designates beneficial uses of waterbodies within the Region, establishes water quality objectives for the protection of these beneficial uses, and outlines a plan of implementation for maintaining and enhancing their water quality. The existing Basin Plan specifies bacterial numeric water quality objectives and beneficial uses for the New River. While the objectives are expressed in the form of bacteria indicator microorganisms, they have been established to address pathogenic microorganisms in general (e.g., bacteria, viruses, etc.). The river's bacterial objectives are being exceeded and its beneficial uses from the Mexicali metropolitan area in Mexico. They are also being violated because of discharges of treated, but undisinfected wastewater from treatment plants in Imperial County.

#### **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 (33 U.S.C. §1313 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 numeric water quality objectives for pathogen-indicator bacteria to protect

beneficial uses for the New River. The proposed TMDL sets those objectives as numeric targets and allowable waste load and load allocations for the TMDL.

Pursuant to Section 303(d) of the Clean Water Act<sup>1</sup>, 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 New River as water quality limited, in part, because pathogen-indicator bacterial concentrations violate the water quality standards (WQS) established by the Regional Board to protect the beneficial uses of the river. The main sources of the impairment are discharges of wastes from Mexico and discharges of treated, but undisinfected wastewater from several wastewater treatment plants in Imperial County. Section 303 (d)(1)(A) of the Clean Water Act (CWA) (33 USC 1313(d)(1)(A)) 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 Pathogen, the TMDL Implementation Plan, and a proposed Amendment to the Basin Plan to incorporate the key components of the TMDL.

A TMDL addresses pollution from point and nonpoint sources of pollution. Nonpoint sources of pollution are usually defined as sources which are diffuse and/or not subject to regulation under the federal National Pollutant Discharge Elimination System (for surface water discharges). Examples of nonpoint sources of pollution include agricultural runoff. Point sources are, in general, discrete conveyances such as pipes or man-made ditches that carry pollutants (e.g., wastes). Examples of point sources of pollution include wastewater treatment plants and confined animal facilities. The proposed TMDL sets the following wasteload allocations (WLAs) and load allocations (LAs) for point sources and nonpoint sources of pollution, respectively:

WLAs and LAs					
<b>Indicator Parameters</b>	<u>30-Day Geometric Mean<sup>a</sup></u>	<b>Maximum</b>			
Fecal Coliforms	200 MPN <sup>b</sup> /100 ml	С			
E. coli	126 MPN/100 ml	400 MPN/100 ml			
Enterococci	33 MPN/100 ml	100 MPN/100 ml			
Based on a minim	um of no less than 5 samples a	equally spaced over a			
30-day period.	uni or no less than 5 samples t	equally spaced over a			

- b. Most probable number.
- c. No more than 10% of total samples during any 30-day period shall exceed 400 MPN/100 ml.

The allocations are applicable throughout the entire stretch of the New River in the U.S. and are based on extensive epidemiological studies conducted, amongst others, by the United States Environmental Protection Agency.

Also, the proposed TMDL Implementation Plan requires that:

<sup>&</sup>lt;sup>1</sup> The Clean Water Act is a 1977 amendment to the Federal Water Pollution Control Act of 1972, which set the basic structure for regulating discharges of pollutants to waters of the United States. The amended Federal Water Pollution Control Act is commonly referred to as the "Clean Water Act" and is contained in Title 33, U.S. Code, Section 1251 et seq. The CWA Section #s referenced in this document refer to the Section #s of the 1977 amendment.

- The City of Westmorland, Seeley County Water District (CWD), McCabe Elementary School, and Date Gardens Mobile Home Park (DGMHP), which are discharging treated, but undisinfected domestic wastewater into the river and/or its tributaries provide effluent disinfection at their wastewater treatment plants (WWTPs) (i.e., construct, operate, and maintain disinfection facilities for the WWTPs). The WWTPs are in Imperial County; and
- The U.S. Government take appropriate measures for the New River at the International Boundary in accordance with a time schedule to address the impairments.

A monitoring program is also proposed as part of the TMDL to track water quality changes and compliance with the TMDL.

The California Water Code prohibits the Regional Board from specifying the manner as to which a discharger should use to comply with Regional Board requirements (CWC § 13360). Therefore, it is unknown what type of disinfection alternatives the dischargers may implement, but domestic wastewater typically is disinfected using chlorine (both in liquid and gas forms), ultraviolet radiation, or ozone. Of these three disinfection methods, chlorine is the most widely used in the U.S. The cities of Brawley prepared and certified a Mitigated Negative Declaration on May 20, 1999 to address potential environmental impacts associated with the upgrades/expansions WWTP. Similarly, the City of Westmorland prepared and certified a Negative Declaration on March 9, 1998, to address potential environmental impacts associated with the upgrades/expansions of its WWTP. The proposed upgrades/expansions include disinfection facilities and were required by Regional Board enforcement actions that preceded this proposed project. Therefore, this analysis focuses on the potential impacts that the disinfection facilities for the McCabe Elementary School, Date Gardens MHP, and Seeley CWD WWTPs may have on the environment; and the impacts that prescribing disinfection limits for the City of Westmorland WWTP have on the environment because the City's NPDES permit currently does not include effluent disinfection limits.

The U.S. Section of the International Boundary and Water Commission (IBWC) is charged by the Mexican-American Water Treaty of 1944 with the solution of sanitation problems in the U.S.-Mexico border area. Also, the La Paz Agreement of 1983 between Mexico and the U.S. designated the United States Environmental Protection Agency (USEPA) as the U.S. coordinator for environmental issues along the border. Therefore, the Regional Board views the U.S. government as a responsible party for the pollution of the New River at the International Boundary. It is unknown how the U.S. government proposes to address the bacterial pollution at the border. It has consistently rejected the idea of building facilities in the U.S. to address the river pollution. Therefore, it is unlikely that it will undertake a project in Imperial County to address the problem. It has, and therefore is likely that will continue, to work with and with the consent of Mexico and build facilities in Mexico to address the problem. Under this scenario, a CEQA analysis of the control measures is not required.

#### **Project Setting**

The New River is a tributary to the Salton Sea, California's largest inland surface water. The Salton Sea is the most prominent feature of the Salton Sea Transboundary Watershed. The New River has its headwaters several miles south of the International Boundary between the United States and Mexico, and travels approximately 60 river miles through Imperial County before it empties into the southwesterly corner of the Salton Sea, just downstream of the City of Westmorland. This part of the

watershed is characterized by its arid environment (less than 2.5 inches per year of average precipitation). Imperial County covers approximately 4,597 square miles (2,942,080 acres) (Imperial County, 1998). About 50% of County lands are undeveloped and under the jurisdiction and ownership of the federal government. Of the developed acreage, approximately 479,327 acres are irrigated lands for agricultural purposes, most of which is Imperial Valley. The 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 U.S. communities directly affected by this proposed project are the City of Westmorland, Seeley County Water District, McCabe Elementary School, and Date Gardens Mobile Home Park:

- The City of Westmorland currently owns and operates a WWTP that has a designed capacity of 0.375 million gallons per day and consists of two aeration basins and four waste stabilization ponds. The WWTP is located on the northern perimeter of the City and discharges its effluent to the Trifolium Drain No. 6, which discharges its flows into the New River at a point 8 miles upstream from the Salton Sea.
- The McCabe Elementary School WWTP is located just below Interstate 8, approximately 5 miles southwest of El Centro. The WWTP consists of an extended aeration sewage treatment package plant that discharges 1500 gallons per day. The WWTP has a design capacity of 5000 gallons per day. Treated wastewater from the WWTP is discharged to Wildcat Drain, which discharges into Rice Drain No. 3, which discharges its flows into the New River at a point 35 miles upstream from the Salton Sea.
- The Seeley WWTP is located on the outskirts of the community of Seeley, approximately 8 miles west of El Centro. The treatment system consists of an aeration basin and a stabilization pond and is designed for a flow of 0.2 million gallons per day. The wastewater is discharged to the New River that flows about another 30 miles to the Salton Sea.
- The Date Garden Mobile Home Park WWTP is located approximately 4 miles west of El Centro. The treatment facility consists of an activated sludge-type package treatment plant with a design capacity of 14,000 gallons per day. Treated sewage is discharged directly into a subsurface tile drain, through a concrete pipe into Rice Drain No. 3 that flows 7 miles before entering the New River about 30 miles from the Salton Sea.

The figure shown below illustrates the New River and the major incorporated and unincorporated communities within its watershed.

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A discussion of each of the major areas of the Environmental Checklist follows.

### I. Aesthetics

**No Impact**—The Basin Plan amendment itself is regulatory action, which will not result in any aesthetics impacts. The establishment of the TMDL will require, in part, implementation of structural controls (i.e., construction and operation of disinfection wastewater facilities) for the City of Westmorland, Seeley County Water District, McCabe Elementary School, and Date Gardens Mobile Home Park wastewater treatment plants to eliminate pathogens in the effluent from the plants at concentrations that threaten violation of the TMDL. The construction of disinfection facilities for the WWTPs will take place within the WWTPs. Therefore, construction, operation, and maintenance of these facilities are not expected to have an aesthetic impact

### II. Agriculture Resources

**No Impact**—The proposed project would not result in any loss or conversion of agricultural land, conflict with existing agricultural zoning, or the Williamson Act. Therefore, no impacts to agricultural resources have been identified.

## III. Air Quality

Less Than Significant—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 exceedances of the Federal and State ozone standards in Imperial Valley are the result of transfer of pollutants from the South Coast Air Basin, industrial activities in the City of Mexicali, Mexico, where pollutants blow upwind into the Imperial Valley, and from nocturnal air stagnation and around-based temperature inversions. Inversions lead to poor air quality at night that carries over into early morning. The Basin Plan amendment itself is regulatory action, which will not result in any air quality impacts or interfere with the implementation of any air quality regulatory action. The required disinfection facilities are not sources of emissions that could violate any air quality standard or contribute substantially to an existing or projected air quality violation; 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; expose sensitive receptors to substantial pollutant concentrations; or expose people to objectionable odors.

The installation/construction of the facilities may involve the limited use of heavy-duty construction equipment (e.g., caterpillars, cranes, dump trucks, backhoes, etc.) that are potential sources of gas emissions, but the Imperial County Air Pollution Control District (ICAPCD) reports that such equipment meets emission standards and are exempted from ICAPCD permitting requirements. Therefore, emissions from such equipment are not expected to result in air quality impacts. Short-term emissions of particulates (i.e., dust, clay, silt, and fine sand) may be generated by the equipment disturbing relatively small areas preparing the terrain to build the required disinfection facilities. Additional potential sources of particulates are on-site and off-site vehicle traffic in dusty unpaved areas related to the construction activities. The individual and cumulative contribution of these activities are anticipated to be less than significant, will not expose sensitive receptors to any substantial pollution concentrations, or create objectionable odors affecting a substantial number of people.

### **IV. Biological Resources**

Less Than Significant With Mitigation—The New River is a part of the Salton Sea Watershed and is therefore an important functioning component of the Pacific Flyway, a major migratory route connecting Canada and the US to Mexico and Central America. The degradation of wetland habitat elsewhere along the Pacific Flyway has rendered the area vital habitat for migratory avian species. The New River riparian corridors and deltasare potential major wildlife movement corridors and constitute sensitive habitat. The dominant plant species found along these corridors is salt cedar, an introduced species that has suffocated the native vegetation. Other plant species include reeds, cattails and arrowheads. Data from the U.S. Fish and Wildlife Service (USFWS) indicate that the most common birds are the burrowing owl, a state- and federally-listed species of concern, the savannah sparrow, yellow-rumped warblers, and the red-winged blackbird. The New River watershed is also potential habitat for the state-fully-protected-threatened and federally listed endangered Yuma clapper rail and state-fully-protected-threatened California Black rail. Fish that inhabit the waterbodies in the New River watershed include mosquito fish, carp, yellow bullhead channel and flathead catfish, tilapia, longjaw mudsucker, largemouth bass, red shiner, sailfin molly, and others. The USFWS reports that the state- and federally-listed endangered pupfish is found in the agricultural drains and in the New River near the outlet to the Salton Sea.

The proposed amendment will require the implementation of actions to reduce pathogens in the New River. This should result in a healthier habitat for biological resources, including wildlife, vegetation, fish, and invertebrates that are supported by the New River and/or its tributaries. Discharge of disinfected wastewater is not anticipated to have an impact on riparian habitat. However, wastewater disinfected with chlorine can leave chlorine residual that has the potential to be acutely toxic to aquatic life (e.g., fish and invertebrates). Where chlorination is proposed as the method of disinfection, the Regional Board will prescribe in the NPDES permits for the City of Westmorland, Seeley CWD, Date Gardens MHP, and McCabe Elementary School chlorine residual limits for their effluent to mitigate this potential significant impact to a level of less than significant. Typical dechlorination methods involve the use of sulfur dioxide.

#### V. Cultural Resources

**No Impact**—The proposed project will not result in any cultural resources impacts. Implementation/construction of pathogen control facilities (e.g., disinfection facilities) are expected to take place on existing wastewater treatment plants (WWTPs). The WWTP sites do not involve or implicate any known historical, archeological, or paleontological resources, unique sites or unique geologic features. Therefore, no impacts to cultural resources have been identified and no mitigation measures are required.

#### VI. Geology and Soils

**Less Than Significant With Mitigation**—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 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, shallow groundwater, and seismicity create a potential for soil liquefaction. Therefore, the potential for structural failure is inherently significant for the area. The Basin Plan amendment itself will not result in any geological impacts.

Construction of disinfection facilities at existing WWTPs are not expected to result in any 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. Construction of disinfection facilities at existing WWTPs will result in a less than significant impact to the topography as they may typically entail the disturbance of less than a couple of thousand square feet per WWTP. In the case of the package WWTPs at McCabe Elementary School and Date Gardens MHP, the area affected is even smaller, in the order of a few hundred square feet. However, the disinfection facilities are structural controls typically constructed at or above ground surface. Improperly sited and/or constructed facilities could have acute or chronic catastrophic failures (e.g., structural collapse, liquefaction, etc.), which could result in discharges of untreated or improperly treated wastewater or spills of chlorine, where chlorine is used as disinfectant. These could have a significant impact on the environment. To mitigate this potential impact to a less than significant impact, and pursuant to Section 13267 of the California Water Code, the Regional Board will require that dischargers who need to build these types of controls submit plans and specifications for the proposed controls and that the plans and specifications be prepared under the direct supervision of a California registered professional engineer, experienced in the design of these types of controls. Further, it will require that the controls comply with local and Imperial County building standards and generally accepted engineering practices for the area. Hence, these impacts are less than significant with mitigation.

#### VII. Hazards and Hazardous Materials

Less Than Significant With Mitigation--Three WWTPs in the project area are required to construct effluent disinfection facilities for treatment of wastewater. It is at the discretion of the owners of the WWTPs as to which disinfection process will be utilized for compliance with TMDL. Commonly accepted disinfection methods include the use of chlorine gas, a chlorine solution, and ultra violet radiation. Chlorine gas is widely used throughout the United States and is usually coupled with dechlorination. Chlorine gas is highly toxic. It can cause temporary or permanent damage to the respiratory system and, at high dosages, death. The greatest risk for chlorine exposure occurs during the transport of chlorine from the producer/distributor to the user in chlorine tank cars. Safety in this arena is addressed through standard procedures implemented by the carrier of the hazardous material and the various safety measures incorporated in the design of chlorine tank cars that prevent rupture even after an accident. Therefore the potential impact to the environment during transportation is considered to be less than significant. Other potential hazards associated with chlorine gas treatment involve the leaks and use of sulfur dioxide as a dechlorinating agent. While sulfur dioxide is also a toxic substance, larger quantities are required to reach a toxic level, both of which could have a significant impact on the environment. Where chlorine is used as the principal disinfectant, the Regional Board will require in the NPDES permits for the plants, that plant personnel have the necessary Wastewater Treatment Plant Operator Certification from the State Water Resources Control Board to properly operate such disinfection system. It will also require that the WWTPs comply with County standards for the use and storage of such material. State regulations require that facilities that use chlorine gas as disinfectant are required to have emergency repair kits on-site to handle leaks and spills. The Regional Board will require facilities that propose to use chlorine for disinfection to submit a spill prevention and response plan to mitigate the potential impact from spills/leaks of chlorine to a less than significant impact. Plan requirements will include providing containment structures around chlorine solution containers to provide on-site containment of spilled materials and compliance with regulations for use of chlorine gas. These mitigation measures reduce the potential impact on the environment to a less than significant.

### VIII. Hydrology and Water Quality

No Impact—The New River watershed drains approximately 200,000 acres from the Imperial Valley, the Mexicali Metropolitan area, and approximately 300,000 acres in the Mexicali Valley. The river carries urban runoff, untreated and partially treated municipal wastes, untreated and partially treated industrial wastes, and agricultural runoff from the Mexicali Valley northward across the International Boundary into the United States. Within the United States, the New River channel is approximately 60 miles in length and up to 2/3 of a mile in width. Within Mexicali, Baja California, Mexico, this natural channel way is discernible for about 12-16 miles. From 1980 to 1997, the flow of the river at the border averaged 182,000 acre-feet/year (Tetra Tech, 1999). Once it crosses the International Boundary, the New River flows approximately 60 miles through the Imperial Valley until it reaches its outlet, the Salton Sea. Through the Imperial Valley, the New River acquires about 2/3 of its total flow, mainly in the form of agricultural return flows via agricultural drains owned and operated by Imperial Irrigation District (IID). It also receives treated domestic and industrial wastewater from point sources of pollution. At its outlet with the Salton Sea, the New River flow is about 600 cfs or 434,380 acrefeet/year. The Regional Board has prioritized the New River for clean up purposes because the river's water quality is significantly impaired by pathogens (as indicated by bacteria), pesticides, volatile organic compounds, silt, and nutrients.

The proposed project will ask the U.S. Government to implement actions to address discharges of wastes from Mexico that are causing violation of the bacteriological water quality standards established by the state (and approved by the USEPA) for the New River. Should the U.S. Government opt to build infrastructure in Imperial County (e.g., near or at the International Boundary with Mexico) to address the pollution, as stated in a previous paragraph, this project would require the preparation of a separate CEQA document to address any and all environmental impacts associated with the project, including potential canalization of the New River near or at the Boundary, changes in river flow and course, flooding hazards, changes in water quality, etc. On the other hand, should it opt to do a project in Mexico to address this issue, a CEQA document is not required.

Similarly, the project also requires the four WWTPs in the Imperial Valley to provide disinfection. The Regional Board has adopted waste discharge requirements (NPDES permits) for the discharges of wastes from the plants, but the permits do not currently include disinfection limits. Consequently, the WWTPs are currently discharging treated but undisinfected wastewaters, which are causing and/or contributing to violation of the bacteriological standards for the New River. The proposed TMDL will impose disinfection limits to correct the water quality impairment they are causing by providing effluent disinfection by June 15, 2004. The construction, operation, and maintenance of disinfection facilities and the discharge of disinfected WWTP effluent do not involve increasing discharges or any alteration to the New River flow regime and/or its tributary drains. Nor do they involve groundwater supplies and alteration of stormwater facilities. The most common method of disinfection is chlorination. If the WWTP owners/operators choose this method, there will also be a corresponding

dechlorination element that will ensure the maintenance of water quality in the plant effluent. While the discharge of chlorinated and dechlorinated wastewater from the WWTP has to potential to result in a measurable increase of the sulfur and chlorine content of the New River and/or its tributaries, the increase is is not expected to result in water quality impacts.

## IX. Land Use and Planning

**No Impact**—The study area is under the planning jurisdiction of the Imperial County General Plan and its Elements. The construction of disinfection facilities on existing WWTPs is a land use compatible with the current land use designation for WWTPs. Thus, the proposed project will not result in land use and planning impacts and, therefore, no impacts have been identified and no mitigation measures are necessary.

## X. Mineral Resources

**No Impact**—The proposed project and implementation measures will not result in any mineral resources impacts. Implementation and construction of disinfection facilities is expected to take place at sites that have been in use for treatment of wastewater for at least the last 5 years. No known mineral resources can be affected by the proposed actions. The proposed project will not result in mineral resources impacts. Therefore, no impacts have been identified and no mitigation measures are necessary.

## XI. Noise

**Less Than Significant**—All noise generated from the proposed project will be associated with the construction of disinfection facilities at the Seeley CWD, the McCabe School, and the Date Gardens MHP WWTPs. This activity will generate marginal traffic and construction noise on and around the roadways that service the sites. However, the noises are temporary and their levels are relatively insignificant because, with the exception of the date Gardens MHP WWTP and the MCCabe School WWTP, the sites are relatively isolated from sensible receptors. The Date Gardens MHP WWTP is a few hundred feet away from mobile homes, and the McCabe School WWTP is a few hundred feet from classrooms. Considering the size of the WWTPs, which discharge less than 10,000 gallons per day, construction of the disinfection facilities can be accomplished in a matter of few days, during normal business hours. This impact is unavoidable and locally moderate, but temporary. Construction of the facilities will be subjected to County permitting requirements and noise ordinances.

## XII. Population and Housing

**No Impact**—The proposed project is not growth inducing, will not result in the displacement of any housing, or the displacement of any people. Consequently, it will not result in population and housing impacts. Therefore, no impacts have been identified and no mitigation measures are necessary.

## XIII. Public Services

**No Impact**—The proposed project will not affect public services in anyway including the maintenance of acceptable service ratios, response times, or other performance objectives. Therefore, no impacts have been identified and no mitigation measures are necessary.

## XIV. Recreation

**No Impact**—The proposed project may increase the use of the New River for recreational activities such as fishing, but the increase in activity is not expected to contribute the deterioration of the River. This statement is especially convincing when considering the deteriorated state of the river at the present time, and the anticipated improvements resulting from the implementation of this project. Therefore, no impacts have been identified and no mitigation measures are necessary.

### XV. Transportation/Traffic

**No Impact**—The WWTPs that will be building and operating disinfection facilities are located in the Imperial Valley. The roads in Imperial Valley are thoroughly accommodating to the low amount of traffic circulating through the valley. The plants are located in relatively rural areas, hence potential project-related transportation/traffic impacts are anticipated to be insignificant, not cumulatively considerable, and will not result in any significant road closures or any other traffic related disturbances. Therefore, no impacts have been identified and no mitigation measures are necessary.

### XVI. Utilities and Service Systems

**No Impact**—The proposed project will require the upgrade of WWTPs in the Imperial Valley. The environmental effects related to the construction of these facilities are limited to the physical disruption of the construction site. During construction of the facilities, the Regional Board will require that the WWTPs continue to operate in compliance with their Board permits, with no disruption to the level of service they provide. Considerations concerning landfill capacities are not applicable to this project. Therefore, no impacts have been identified and no mitigation measures are necessary.

### XVII. Mandatory Findings of Significance.

The project will not result in any of the impacts listed under mandatory findings of significance.

### **XVIII.** Alternatives to Proposed Project

The following paragraphs provide a discussion regarding alternatives to the proposed project (i.e., proposed Basin Plan amendment and TMDL), including discussions on the rationale for the proposed alternative, the "No Action Alternative," and variations to the proposed alternative.

#### Proposed Alternative

The proposed New River Pathogen TMDL is a reasonable and feasible approach to decrease existing enteric bacteria densities to a level that are associated with acceptable health risks for water contact recreation. The TMDL contains bacteria numeric targets, based on federal Bacteria Water Quality Criteria, that presently are expected to attain and maintain designated beneficial uses, and eliminate existing water quality impairments and public health threats. The proposed time schedule outlined in the TMDL implementation plan requires compliance within a three-year period. Such a time schedule is moderately aggressive, yet reasonable and was established taking into account the ability of responsible parties to implement tasks and pollution severity. The time schedule provides the responsible parties with the necessary time to explore financial options and undertake supplemental CEQA studies, as the situation warrant.

#### No Action Alternative

The "No Action" alternative implementation would involve no action by the Regional Board to adopt this TMDL, including implementation measures and monitoring program. This alternative does not comply with the CWA or meet the purpose of the proposed action, which is to eliminate ongoing violations of the Basin Plan water quality standards, water quality impairments, and public health threats.

#### Other Alternatives

Alternatives to the proposed Basin Plan amendments and TMDL essentially fall into three categories: (1) alternate deadlines for achieving the TMDL, (2) alternative numeric targets, and (3) a combination of alternative deadlines and numeric targets. Regarding alternate deadlines for compliance, a more stringent schedule (e.g., requiring compliance immediately after adoption of the TMDL or within a year thereafter) is not realistic as the schedule would not afford the owners and operators of the

affected WWTPs and the U.S. Government the opportunity to undertake the necessary planning and studies to evaluate which is the most effective way to ensure compliance with the TMDL. A more relaxed deadline (e.g., 5 years) is not acceptable because it fails to resolve the water quality impact at the earliest practicable date, which is at the heart of the TMDL process.

Implementation of alternative numeric targets could consist of targets that are less stringent or more stringent than the proposed ones. These options were considered and judged to be unacceptable for this phased TMDL. In the absence of an extensive and long-term scientific investigation (e.g., risk analysis) to establish less stringent bacteria water quality objectives, less stringent objectives would only increase the threat to public health and exceed federal criteria. Such an investigation would also only prolong the impaired state of the New River and possibly the Salton Sea itself. Similarly, considering the degree of bacterial pollution, more stringent objectives at this time would only place an unnecessary economic hardship to the responsible agencies/parties because they would have to implement additional wastewater treatment to comply with more stringent standards.