EXHIBIT C

Final
Initial Study

Residential Wastewater Collection Pipeline System and Water Distribution System Expansion to Under-Served Areas City of Holtville, California

---

Prepared for:

City of Holtville
121 West Fifth Street
Holtville, CA 92250

By the
Border Environment Cooperation Commission
Comisión de Cooperación Ecológica Fronteriza
Blvd. Tomas Fernández, No. 8069
Cd. Juárez, Chihuahua, México

April 2010

DETERMINATION

On the basis of this initial evaluation:

___ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to the earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

___ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated impact" on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

✓ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

___ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

___ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

Signature _____ Date April 26, 2010

Printed Name Laura Fischer, City Manager For City of Holtville

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be significantly affected by this project as indicated by the checklist in the following sections:

	Aesthetics		Agricultural Resources		Air Quality
	Biological Resources		Cultural Resources		Geology/Soils
	Hazards & Hazardous Materials		Hydrology/Water Quality		Land Use/Planning
	Mineral Resources		Noise		Population/Housing
	Public Services		Recreation		Transportation/Traffic
	Utilities/Service Systems		Mandatory Findings of Significance		

TABLE OF CONTENTS

LIST OF FIGURES

1.0 INTRODUCTION

This Initial Study (IS) has been prepared in accordance with the California Environmental Quality Act (CEQA) and State Guidelines for Implementation of CEQA. It will serve as a preliminary environmental document for proposed expansion of the City of Holtville (City) water distribution system and wastewater collection system improvements to an under-served area adjacent to the City, in an unincorporated area of Imperial County within the City's Service Area.

The purpose of this document is to identify any potentially significant environmental issues associated with developing the proposed project. This document satisfies disclosure requirements subsequent to CEQA. Consequently, this document will reveal if environmental issues will require further discussion and treatment in a future environmental documentation. . It should be noted that funding for this project would be partially provided by the United States (US) Environmental Protection Agency (EPA) which administers funds for water and wastewater infrastructure projects located within US-Mexico border region. EPA policy for distribution of such border funds requires certification by the Border Environment Cooperation Commission (BECC) as a condition for grant award. As part of the BECC certification process, the proposed project must comply with both CEQA and the National Environmental Policy Act (NEPA); separate documentation satisfying the requirements of NEPA is being prepared concurrently with this IS.

1.1 Purpose

The proposed water distribution and wastewater collection system improvements are intended to provide increased health, sanitation and security to residents within or adjacent to the City's existing water distribution and wastewater collection Service Area.

Residents in the proposed water service expansion area are currently served with untreated Imperial Irrigation District (IID) canal water or hauled water. Connecting to the City's water system would fulfill the need to provide this expanded service area with reliable water that meets local, state and federal water quality standards. The improvements would also bring these residences in compliance with minimum fire flow requirements.

The proposed wastewater collection system (or sanitary sewer) replacement would also provide health, sanitation, and security benefits. This project would replace undersized and unreliable sanitary sewer mains and services. It would eliminate wastewater overflows that have been reported in the project area. This part of the project would also include abandonment of existing septic systems in the area, which would protect groundwater and provide potential health benefits.

1.2 Intended Uses of this Document

The primary intent of this document is to assess the potential environmental consequences of the proposed project in accordance with the State of California Guidelines for Implementation of CEQA. CEQA requires that any qualifying project that requires discretionary authority of a governing body must first prepare an environmental assessment to determine the potential environmental impacts of that project, before the project can be approved.

The City of Holtville is the lead agency for the proposed project. The information in this IS provides an environmental perspective to the City decision-makers, other responsible agencies, and other interested parties regarding potential effects of the proposed project.

2.0 PROJECT DESCRIPTION

The City of Holtville is proposing the expansion of the City's water distribution system and wastewater collection system improvements to an under-served area of Imperial County, California, primarily within a designated City Service Area adjacent to and within the City of Holtville.

The improvement to the residential wastewater collection system pipeline consists of replacing two wastewater pipeline sections and connecting 23 parcels and 77 inhabitants to the City's wastewater collection system. Wastewater would be conveyed via the wastewater outfall pipeline to the City of Holtville Wastewater Treatment Plant (WWTP). The two wastewater pipeline sections to be replaced total 650 lineal feet. Each of the existing 4-inch-diameter pipelines would be replaced with 8-inch-diameter PVC pipeline sections, associated manholes, and service laterals. In addition, 4-inch-diameter PVC sewer service laterals would be installed to the individual residences. The two wastewater collection pipeline segments to be replaced are located in alleys between Orange and Fern avenues and between Pine and Cedar avenues from Ninth Street on the south to Tenth Street on the north. The pipelines are currently connected to the City's wastewater collection system which conveys the wastewater to the City of Holtville WWTP. Also included is the project is replacement of approximately 13,000 lineal feet of 1-inch-diameter, Schedule 40 PVC waterlines. These lines do not meet standards for potable water distribution, are installed at very shallow depths (approximately 1-foot below grade and above ground in some cases), and are frequently subject to damage.

Expansion of the water distribution system would consist of providing water distribution infrastructure to serve approximately 109 parcels, 19 of which are vacant, with approximately 315 people that currently haul potable water or use untreated surface water from the IID canal network. The proposed water system expansion would be connected to the existing City of Holtville water distribution system and designed to meet minimum fire protection standards. The project would include the installation of 10,500 and 12,200 lineal feet of 8-inch and 12-inch-diameter PVC water mains, respectively. The project would also include the installation of ¾-inch-diameter copper water service lines from the 8-inch and 12-inch water mains to the residential water meters.

Pipeline construction would entail trenching, pipe laying, soil stockpiling, covering pipes with stockpiled soil, and operation of equipment to construct drinking water distribution infrastructure to serve 90 new connections in the Service Area of the City of Holtville. The proposed pipeline would cross existing surface canals in several locations and pipeline segments would be bored beneath canals at these locations. Potable water of adequate quality and capacity would be available and rehabilitation of existing infrastructure would not be required. All water distribution and wastewater pipelines would be installed within existing rights-of-way on the sides of roads as other underground utilities permit.

Excavation trenches for the 4-inch-diameter sewer service lines would range from 4.0 to 8.0 feet (ft) (1.21 to 2.43 meters [m]) in depth and 3.0 to 6.0 ft (0.91 to 1.83 m) in width. Trenches for the 8-inch-diameter gravity sewer pipe would range from 5.0 to 12.0 ft (1.5 to 3.66 m) in depth and 6.0 to 13.0 ft (1.83 to 3.96 m) in width. Trenches for the 1-inch-diameter water service lines would range from 1.0 to 4.0 ft (0.3 to 1.21 m) in depth and 3.0 to 6.0 ft (0.91 to 1.83 m) in width. Trenches for the 8-inch and 12-inch diameter water mains would range from 4.0 to 12.0 ft (1.21 to 3.66 m) in depth and 6.0 to 13.0 ft (1.83 to 3.96 m) in width. The embedment would be a minimum of 1.0 to 3.0 ft (0.30 to 0.91 m) in depth for all water and wastewater installations.

Asphalt concrete and sidewalk concrete surfaces would be replaced where cut, as required by the City of Holtville and Imperial County Public Works Departments. Project implementation would take place over 120-days. The system would reach completion in the winter of 2010.

2.1 Project Location

The proposed project is located in Imperial County, 10 miles (16 km) north of the California-Mexico border and near the southeastern margin of the IID, in the Imperial Valley of Southern California (Figure 2-1). The proposed project area encompasses approximately 1.5 mi^2 (3.88 km^2) within an incorporated area of the City of Holtville and approximately 0.33 mi^2 (0.85 km^2) of unincorporated Imperial County, immediately north of the City limits within the City's adopted service area (Figure 2-2).

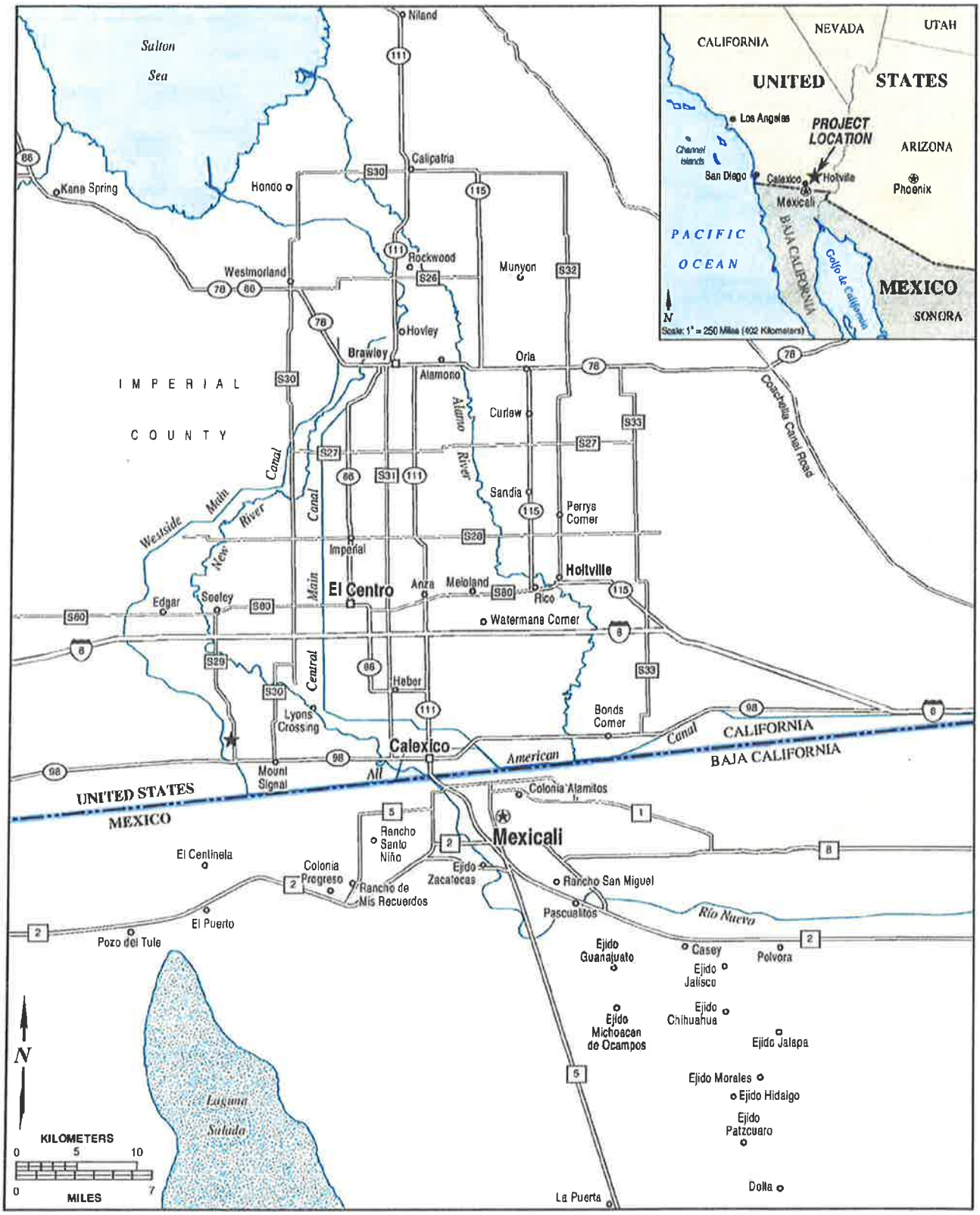
Land use surrounding the City and project area are dominated by agricultural activities.

The proposed project consists of an area of approximately 1.5 mi^2 (3.89 km^2) (BECC 2009a). The City is bordered to the south by the Alamo River, to the east by Towland Road, to the north by Ninth and Tenth streets, and to the west by Melon and Tamarack avenues. The City is centered roughly at Latitude 32 degrees north (°N) and Longitude 115°W, at an average elevation of -10 ft (-3.1 meters) below mean sea level.

The climate in the region is considered arid to semiarid desert and characterized by hot summers and moderate winters. The mean monthly temperature ranges from 55 to 90 degrees Fahrenheit (°F). The annual average maximum temperature is 88°F (31 degrees Celsius [°C]) and minimum temperature is 57°F (14°C) (University of California 2010). Precipitation is generally severely limited, though rainfall is highly variable with precipitation from a single heavy storm one year exceeding the entire annual total during a following drought year. Most natural vegetation in the area has been replaced by agricultural production and urban development.

The City of Holtville, with an estimated current population of 6,400 residents, has been experiencing a gradual population increase in recent years (California Department of Finance [CADOF] 2009). The current population of the unincorporated project area is approximately 315 inhabitants (BECC 2009b).

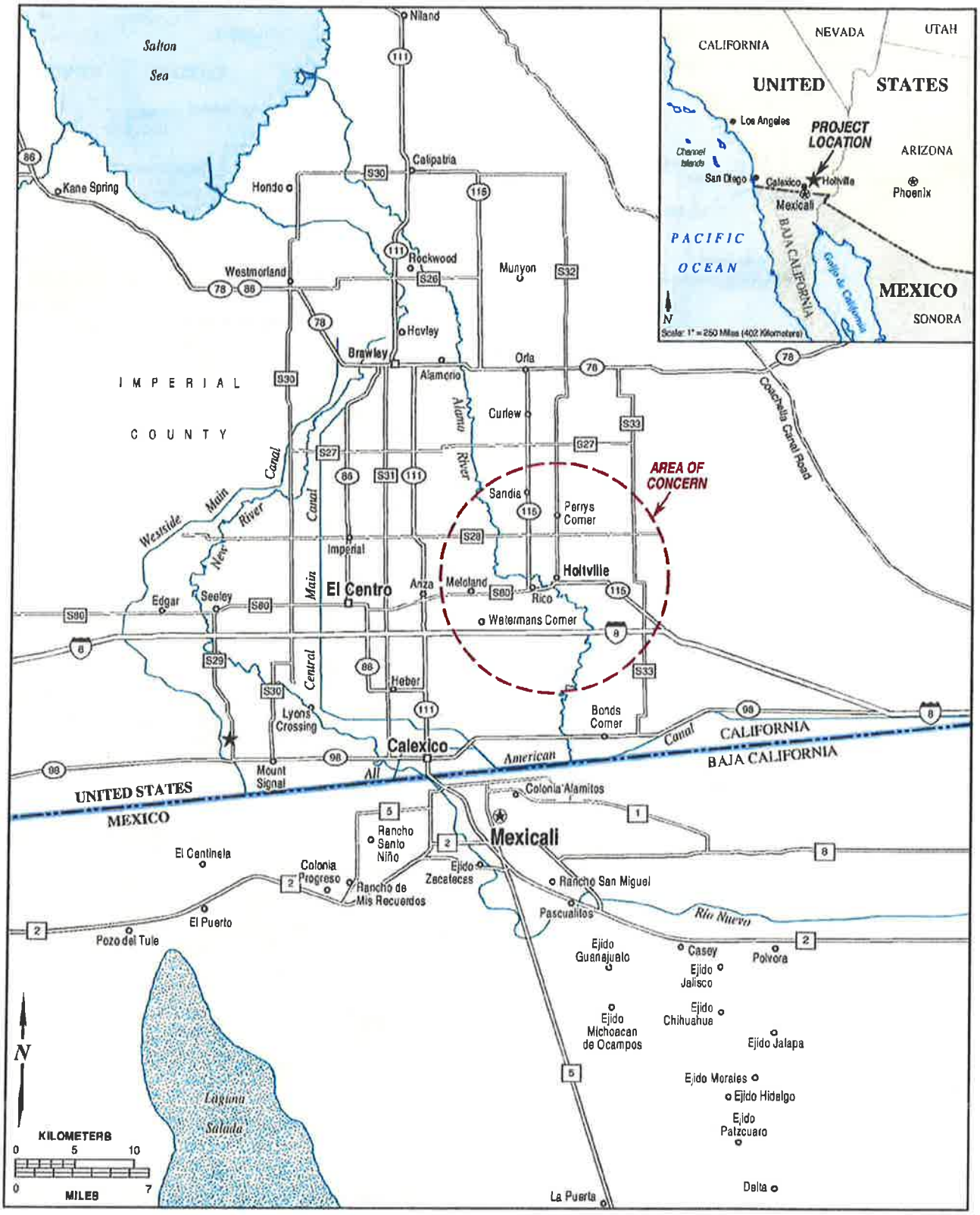
Currently, the City provides wastewater collection and treatment service to its residents and immediate areas outside the incorporated boundaries, totaling an 8-square-mile (mi^2) (21 km^2) service area. The project area is currently either not served by the water distribution system, or is served by a centralized wastewater collection or treatment system that is deficient for current needs.



BECC

Regional Location Map
Holtville, California

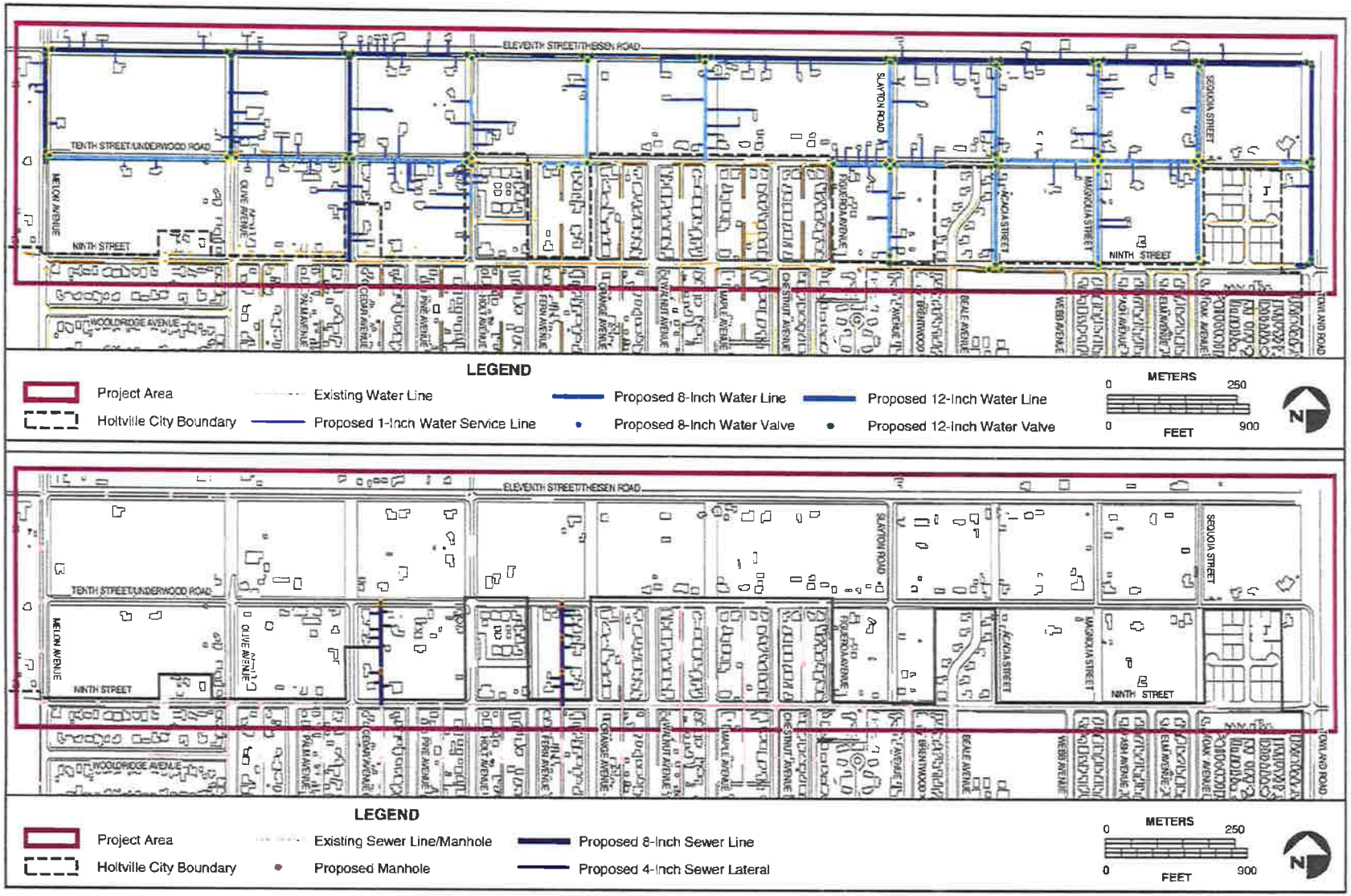
FIGURE 2-1



BECC

Regional Location Map
Holtville, California

FIGURE 2-2



BECC

Proposed Project

FIGURE 2-3

3.0 INITIAL STUDY ENVIRONMENTAL CHECKLIST

This section discusses potential environmental impacts associated with implementation of improvements to the residential wastewater collection pipeline system and water distribution system extension for the City of Holtville.

Required Information

1.	Project Title:	Residential Wastewater Collection Pipeline System and Water Distribution System Extension for the City of Holtville
2.	Lead Agency Name and Address:	City of Holtville 121 West Fifth Street Holtville, CA 92250
3.	Contact Person and Phone Number:	Ms. Rosa Ramirez Finance Manager City of Holtville 121 West Fifth Street Holtville, CA 92250 (760) 356-2912 - Voice (760) 356-1863 - Fax
4.	Project Location:	Holtville Service Plan Area, unincorporated Imperial County, City of Holtville, California
5.	Project Sponsor's Name and Address:	Border Environment Cooperation Commission Comisión de Cooperación Ecológica Fronteriza Blvd. Tomas Fernández, No. 8069 Cd. Juárez, Chihuahua, México US Environmental Protection Agency, Region IX 75 Hawthorne Street San Francisco, California 94105

CEQA GUIDANCE
Appendix I of the State CEQA Guidelines was used in answering the checklist questions:

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the discussion. A "No Impact" answer is adequately supported if the discussion shows that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained when it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2. All answers must take account of the whole action involved, including offsite as well as onsite, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4. "Negative Declaration: Less than Significant with Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less-than-significant level (mitigation measures from earlier analyses may be cross-referenced).

5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration (State CEQA Guidelines Sections 15063[c][D] and 15183). In this case, a brief discussion should identify the following:

    a. Earlier Analysis Used. Identify and state where they are available for review.
    b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
    c. Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures that were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., General Plans, Development Codes). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9. The explanation of each issue should identify:

    a. the significance criteria or threshold, if any, used to evaluate each question; and
    b. the mitigation measure identified, if any, to reduce the impact to less than significance

Identification of the potential for residual significant adverse environmental impacts would trigger the need for preparation of an EIR. For issue areas in which no significant adverse impact would result or impacts would be reduced to a less-than-significant level by mitigation, further analysis is not required.

Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
3.1 AESTHETICS Would the proposal:				
a. Have a substantial adverse effect on a scenic vista?				X
b. Substantially damage scenic resources, including, but not limited to, tree, rock outcroppings, and historic buildings within a scenic state highway?			X	
c. Substantially degrade the existing visual character or quality of the site and its surroundings?			X	
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in this area?				X

Existing Setting

The City of Holtville is located in the Imperial Valley, a wide relatively flat valley that is a major agricultural center for the State of California. The Imperial Valley aesthetic is dominated by extensive areas of row-crop agriculture. Land uses surrounding the City of Holtville are row agriculture which provides a visual openness.

The project area is a residential community with wide streets that accommodates low levels of neighborhood traffic. Architecture is characteristic of typical residential development, containing a mixture of moderate sized single-family housing units. Many of buildings in the project area were constructed before 1980, with some newer structures developed during the 1990s. The project area is surrounded by agricultural fields to the north, east, and south, and residential neighborhoods of the City of Holtville to the west.

Discussion of Checklist Answers

a. **No Impact.** The General Plan designates no roadways, or areas within the project's viewshed as scenic routes or vistas.

b & c. **Less than Significant.** The proposed project would consist of the installation of underground infrastructure. Temporary impacts to neighborhood visual character would occur as a result of trenching activities. No scenic resources would be damaged or degraded during development or implementation of the proposed project.

d. **No Impact.** The proposed project would consist of the installation of underground infrastructure which would not be visible upon completion of construction. No new light sources or sources of glare would be introduced by the proposed project.

Issues	Potentially Significant Impact	Potentially Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
3.2 AGRICULTURAL RESOURCES 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 proposal:				
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?				X
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X
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?				X

Existing Setting

The Imperial Valley is and has been the center of one of the world's most agriculturally productive regions. Agriculture plays a central role in the City of Holtville's economy, with most of the commercial and industrial activity relating to agriculture and agricultural services (e.g. processing, packing, equipment sales and services, etc.) (City of Holtville 2003). Within the Holtville city limits and within the project area, land has primarily been converted to urban and other uses. Agricultural land surrounding the City is mostly comprised of Prime Farmland or Farmland of Statewide Importance. The proposed project area lies directly adjacent to agricultural fields located to the north of the City of Holtville. According to the General Plan for the City of Holtville, the project area, including vacant lots, have been classified as Rural Residential, Low Density Residential, High Density Residential, and Commercial zoning (City of Holtville 2003). The project area contains no land zoned for agriculture. The City promotes the use of the Williamson Act; however, none of the project area is under a Williamson Act contract.

Discussion of Checklist Answers

a – c. **No Impact.** The proposed project would not be located within agriculturally zoned land. The proposed project would occur entirely within disturbed or developed areas and would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural uses. There would be no impacts associated with a Williamson Act Contract, as no such contracts exist within the project area. The proposed project would provide water and wastewater services to existing residences and would not induce growth or result in other changes that could result in conversion of farmland.

Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
3.3 AIR QUALITY Where available, the significance criteria established by the applicable air quality management or 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?			X	
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?			X	
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)?			X	
d. Expose sensitive receptors to substantial pollutant concentrations?				X
e. Create objectionable odors affecting a substantial number of people?				X

Existing Setting

Regional Climate and Meteorology

The climate in the region is continental desert, of extreme aridity, and is characterized by hot and humid summers and moderate winters (City of Holtville). There are typically no summer rains and the average annual precipitation of the area is approximately four inches, with the majority of rainfall event occurring during winter months. The annual average maximum temperature is 88 degrees Fahrenheit (°F) (31°C) and the average minimum temperature is 57°F (14°C) (University of California 2010). Most natural vegetation in the area has been replaced by agricultural production and urban development.

Criteria Pollutants

Air quality in a given location is determined by the concentration of various pollutants in the atmosphere. National Ambient Air Quality Standards (NAAQS) are established by the EPA for criteria pollutants, including: ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur

dioxide (SO_2), particulate matter equal to or less than 10 microns in diameter (PM_{10}) and 2.5 microns in diameter ($PM_{2.5}$), and lead (Pb). NAAQS represent maximum levels of background pollution that are considered safe, with an adequate margin of safety, to protect public health and welfare. Air quality is affected by stationary sources (e.g., industrial development) and mobile sources (e.g., motor vehicles). Air quality at a given location is a function of several factors, including the quantity and type of pollutants emitted locally and regionally, and the dispersion rates of pollutants in the region. Primary factors affecting pollutant dispersion are wind speed and direction, atmospheric stability, temperature, the presence or absence of inversions, and topography.

Ozone (O_3). The majority of ground-level (or terrestrial) O_3 is formed as a result of complex photochemicals (e.g., volatile organic compounds [VOCs]), nitrogen oxides (NO_x), and oxygen. O_3 is a highly reactive gas that damages lung tissue, reduces lung function, and sensitizes the lung to other irritants. Although stratospheric O_3 shields the earth from damaging ultraviolet radiation, terrestrial O_3 is a highly damaging air pollutant and is the primary source of smog.

Carbon Monoxide (CO). CO is a colorless, odorless, poisonous gas produced by incomplete burning of carbon in fuel. The health threat from CO is most serious for those who suffer from cardiovascular disease, particularly those with angina and peripheral vascular disease.

Nitrogen Dioxide (NO_2). NO_2 is a highly reactive gas that can irritate the lungs, cause bronchitis and pneumonia, and lower resistance to respiratory infections. Repeated exposure to high concentrations of NO_2 may cause acute respiratory disease in children. Because NO_2 is an important precursor in the formation of O_3 or smog, control of NO_2 emissions is an important component of overall pollution reduction strategies. The two primary sources of NO_2 in the US are fuel combustion and transportation.

Sulfur Dioxide (SO_2). SO_2 is emitted primarily from stationary source coal and oil combustion, steel mills, refineries, pulp and paper mills, and from non-ferrous smelters. High concentrations of SO_2 may aggravate existing respiratory and cardiovascular disease; asthmatics and those with emphysema or bronchitis are the most sensitive to SO_2 exposure. SO_2 also contributes to acid rain, which can lead to the acidification of lakes and streams, and damage trees.

Particulate Matter (PM_{10} and $PM_{2.5}$). Particulate matter is a mixture of tiny particles that vary greatly in shape, size, and chemical composition, and can be comprised of metals, soot, soil, and dust. PM_{10} includes larger, coarse particles, whereas $PM_{2.5}$ includes smaller, fine particles. Sources of coarse particles include crushing or grinding operations, and fugitive dust generated from travel on paved or unpaved roads. Sources of fine particles include all types of combustion activities (e.g., motor vehicles, power plants, wood burning) and certain industrial processes. Exposure to PM_{10} and $PM_{2.5}$ levels exceeding current standards can result in increased lung- and heart-related respiratory illness. The EPA has concluded that finer particles are more likely to contribute to health problems than those greater than 10 microns in diameter. Both PM_{10} and $PM_{2.5}$ are monitored and regulated.

Airborne Lead (Pb). Airborne lead can be inhaled directly or ingested indirectly by consuming lead-contaminated food, water, or non-food materials such as dust or soil; fetuses, infants, and children are most sensitive to Pb exposure. Pb has been identified as a factor in high blood pressure and heart disease. Exposure to Pb has declined dramatically in the last 10 years as a result of the reduction of Pb in gasoline and paint, and the elimination of Pb from soldered cans.

Regional Air Quality

The City of Holtville is located within the Salton Sea Air Basin, which covers all the Imperial County, parts of western Riverside County and extends into Baja California, Mexico. In Imperial County, the Salton Sea Air Basin is under the jurisdiction of the Imperial County Air Pollution Control District (APCD). Although the Imperial County APCD has jurisdiction over the air basin, it does not have jurisdiction over all activities contributing to the health of the air basin (e.g., activities outside the US). Industrial and mobile sources of emissions in Imperial Valley are generally few, thus limiting exceedances of Federal and State air quality standards. Particulate emissions are largely due to meteorological conditions, minimal rainfall, and dry soils. Agricultural burning and cultivation practices contribute most of the airborne dust in the Holtville area. Some agricultural practices that generate dust are regulated, including: leaving cultivated fields vacant and open to blowing winds, burning of crop residues to clear fields for new cultivation, and crop dusting for fertilization and pest control (City of Holtville 2003).

The Imperial County APCD has adopted rules specifying pollutant emission levels and ambient air quality standards and operates and maintains air quality monitoring station in Brawley, Calexico, El Centro, Niland, and Westmoreland (EPA 2009b). Imperial County is designated as a Federal nonattainment area for PM_{10}, $PM_{2.5}$ and 8-hour ozone (USEPA 2009a; 2009b), and a State Ambient Air Quality Standards nonattainment area for 8-hour ozone and PM_{10}, and is unlisted for $PM_{2.5}$ (CEPA 2009). Particulate matter (PM) is a major air pollutant that is generated by wind blowing dry soils, particularly during the late fall, and during dust storms of winter and early spring. Due to the low average population density in the Holtville area, air pollution from vehicular activity is relatively low. Improving air quality of the region is a focus of the Imperial Valley APCD.

Regulatory Framework

Air quality impacts are assessed by comparing impacts to baseline air quality levels and applicable ambient air quality standards. Federal and State air quality standards have been established for various pollutants. Standards are levels of air quality considered safe from a regulatory perspective, including an adequate margin of safety, to protect public health and welfare.

The Federal CAA was enacted in 1970 and amended in 1977 and 1990 [42 USC 7506 (c)]. The Clean Air Act Amendments of 1990 place most of the responsibility to achieve compliance with NAAQS on individual states. EPA requires each state to prepare a State Implementation Plan (SIP). A SIP is a compilation of goals, strategies, schedules, and enforcement actions that will lead the state into compliance with all NAAQS. Areas not in compliance with a standard can be declared non-attainment areas by EPA or the appropriate state or local agency. In order to reach attainment, NAAQS may not be exceeded more than once per year. A non-attainment area can reach attainment when NAAQS have been met for a period of ten consecutive years. During this time period the area is in transitional attainment, also termed maintenance.

Additionally, the Imperial County Air Pollution Control District (APCD) has developed Thresholds for Project Operations:

Pollutant	Tier I	Tier II
NO_x and ROG	Less than 55 lbs/day	55 lbs/day and greater
PM_{10} and SO_x	Less than 150 lbs/day	150 lbs/day and greater
CO	Less than 550 lbs/day	550 lbs/day and greater
Level of Significance	Less than Significant	Significant Impact
Level of Analysis	Initial Study	Comprehensive Air Quality Analysis Report
Environmental Document	Negative Declaration	Mitigated ND or EIR

When the preliminary analysis of a project indicates that the proposed project may potentially be near the thresholds identified above, the Lead Agency may consider the project as having a potentially significant impact.

Discussion of Checklist Answers

a-c. **Less than Significant.** Imperial County is designated as a Federal nonattainment area for PM_{10}, $PM_{2.5}$ and 8-hour ozone (USEPA 2009a; 2009b), and a State Ambient Air Quality Standards nonattainment area for 8-hour ozone and PM_{10}, and is unlisted for $PM_{2.5}$ (CEPA 2009).

The criteria for determining significant or adverse air quality impacts under the General Conformity Rule, and the need to determine appropriate mitigation measures for a proposed project, is based on the significance thresholds for criteria pollutants and their precursors for which an area is designated as being a nonattainment area is given in 40 CFR 51.853:
A conformity determination would be required for each criteria pollutant or precursor where the total direct and indirect emissions associated with the project would equal or exceed these thresholds:

- Ozone precursor pollutants, VOCs and NO_x: 100 tons per year (tpy) (50 tpy for serious nonattainment areas, 25 tpy for severe nonattainment areas, and 10 tpy for extreme nonattainment areas)
- PM_{10}: 70 tpy for serious nonattainment.

The Imperial County APCD has developed thresholds for project operations and associated construction emissions (Imperial County APCD 2007). Project operations would result in low levels of new indirect emissions related to increased energy use to pump water through the proposed extension of the water distribution system. No new direct emissions would result from the proposed project operations. The proposed project would be considered Tier I under Imperial County APCD thresholds.

Emissions associated with the construction of the proposed project for precursor pollutants for ozone, and PM_{10} and $PM_{2.5}$ and would be below the significance thresholds under the General Conformity Rule. Imperial County APCD Standard Mitigation Measures (refer to Appendix B) would be implemented to ensure best management practices to minimize deleterious air quality contaminants to the maximum extent feasible. The proposed project would be below the

deminimus and therefore in compliance with the SIP; therefore, no General Conformity Analysis is required.

d. **No Impact.** Though the project area is a residential neighborhood with sensitive receptors, no concentrated sources of pollutants will result from the proposed project; therefore, the proposed project would not expose sensitive receptors to substantial pollutant concentrations.

e. **No Impact.** The project involves construction of a fully-enclosed wastewater collection pipeline and water distribution system. No odors would be created.

Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
3.4 BIOLOGICAL RESOURCES Would the proposal:				
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, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?			X	
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service?			X	
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?			X	
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native residents or migratory wildlife corridors, or impede the use of native wildlife nursery sites?			X	
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X
f. Conflict with provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				X

Existing Setting

Flora

The Imperial Valley, in which Holtville is located, contains a range of biotic communities. The predominant plant community in the region is cultivated/ruderal, and is associated with agricultural and other human activities. Historically, the Imperial Valley consisted of a creosote

scrub plant community, though this is been almost completely replaced for the cultivation of carrots, cotton, chard, lettuce, and alfalfa since 1900 (Imperial County 2008).

Most of the natural vegetation in the area has been replaced by cropland and urban development. Most remaining native vegetation and sensitive biological resources exist mostly along the Alamo River Corridor, irrigation canal rights-of-way, and other lowland areas that potentially support riparian vegetation; however, the Alamo River has been degraded by nutrients and heavy metals from sewage and nutrients, silt, selenium, and pesticides from agricultural drainage (City of Holtville 2003). Agricultural activities and other human disturbance have encouraged the spread of opportunistic plan species. Weedy vegetation tend to dominate ruderal areas, such as roadsides, borders of cultivated fields, and in canal riparian/levee areas, and includes plant species such as cheeseweed, shepherds purse, white horse-nettle, saltbush, saltcedar, Russian thistle, and Bermuda grass. No threatened or endangered plant species occur on or near the project site.

Fauna

Due to the cultivated/ruderal nature of the region, wildlife species of the Imperial Valley are species that have adapted to high levels of human disturbance and water quality degradation. These habitats typically do not provide suitable habitat for sensitive plants or wildlife. Freshwater fish are found in rivers and canals, and are dominated by introduced species including the threadfin shad, mosquito fish, red shiner, California killifish, largemouth bass, white and channel catfish (Imperial County 2008).

Imperial County is located on one of the most important flyway corridors in the western hemisphere for migrant waterfowl, shorebirds, and songbirds. Generally, the greatest numbers and diversity of birds are found during the spring and fall months. Approximately 378 species of birds have been identified in Imperial County. Most indigenous medium and large-sized mammals, such as foxes, coyotes and badgers, have disappeared from the region. Smaller mammal species have adapted better to the intense human activity, particularly small rodent species such as the western harvest mouse, black rat, valley pocket gopher, and muskrat (Imperial County 2008). Additionally, a variety of bat species, some residents to the area and others migrants, are found particularly near fruit orchards, agricultural canals, and other waterways. The California leaf-nosed bat, Townsend's western big-eared bat, and the California mastiff bat are all listed as "Species of Special Concern" by the California Department of Fish and Game (CDFG), and have the potential to occur near the project area.

The project area is medium density residential and bordered by cultivated/ruderal areas to the east. The Pear Canal runs to the west of the project area; however, this section is surrounded by development, has little riparian vegetation, and limited habitat value. Remaining vegetation and wildlife in and near the project area are typical of species encountered in urban environments.

Endangered or Threatened Species

Several plant and animal species have been found in Imperial County and throughout California that are federally- or state-listed as threatened, endangered, candidate for protection or species of concern.

In the vicinity of the project area, the California Natural Diversity Database (CNDDB) notes several special status species (CDFG 2009). The flat-tail horned lizard (*Phrynosoma mcallii*) is threatened by loss and disturbance of habitat; however it was removed from Federal protection under the Endangered Species Act (ESA) in 2006. The species is associated with sandy desert hardpan or gravel flats with scattered sparse vegetation. The Colorado river toad (*Incilius alvarius*) is associated with grasslands, arid desert lowlands, and irrigated lowlands of the southern Imperial Valley; however no individuals have been identified in California since 1955, and it is believed to be extirpated (California Herps 2009). The western yellow bat (*Lasiurus xanthinus*) is primarily found in Mexico and Central America, however its range extends into southern California and has a particular association with palm trees. Four miles west of the project site, the rare and endangered sandfood (*Pholisma sonorae*) has been identified, however this species is associated with creosote scrub habitats and therefore no suitable habitat exists in the project vicinity (Calflora 2009). Burrowing owl (*Athene cunicularia*), a California Species of Special Concern, have also been identified 4 miles west of the project site. Five miles east of the project site a near threatened species of hispid rat (*Sigmodon hispidus eremicus*) has been identified (CDFG 2009).

Wetlands

In Imperial County wetlands are extremely limited due to the desert climate and lack of natural surface water resources. Due to their limited area and diminishing acreages, the occurrence of sensitive plants, and the ability to support a diversity of wildlife species, desert riparian and freshwater marsh habitats are considered sensitive in Imperial County (Imperial County 2008).

According to National Wetland Inventory maps for the area, riverine, freshwater forested/shrub and freshwater emergent wetlands occur along the Alamo River (USFWS 2009). Neither the Alamo River nor its associated wetlands occur within the project site. The natural environment of the project area has been previously disturbed, is generally a desert environment that is away from natural sources of water. No wetlands occur within the project site.

Critical Habitat

Twenty-one thousand acres of critical habitat have been designated by the USFWS for the Peirson's milk-vetch in the Algodones Dunes within the Imperial Sand Dunes Recreation Area in Imperial County (Federal Register 2004). In addition, critical habitat has been designated for the peninsular bighorn sheep within the Painted Gorge Area of the Coyote Mountains in Imperial County (US Fish and Wildlife Service [USFWS] 2001). Both these areas are more than 15 miles from the project site in Holtville, and no critical habitat areas have been designated within or immediately surrounding the City of Holtville.

Discussion of Checklist Answers

a & b. **Less than Significant.** No significant biological resources or habitats are located within or adjacent to the project area. Therefore, no species identified as candidate, sensitive, or special status or other sensitive natural community would be impacted nor would the project have an adverse effect on riparian habitat. Based on the distance from habitat areas, the short-term construction noise impacts associated with the proposed project are not anticipated to be perceptible by sensitive species. Implementation of the proposed project would not decrease water flows and would not create adverse direct impacts to aquatic habitats. The proposed project would create improvements to the wastewater collection system and elimination of

occasional sewage leaks in the project area. This would potentially result in a beneficial impact to water quality entering the Alamo River, which in turn could directly benefit aquatic habitat along the creek. Therefore, no direct or indirect impacts to biological resources would result and implementation of the proposed project would result in less than significant impacts.

c. **Less than Significant**. No wetlands occur within the proposed project boundaries. Ground-disturbing activities associated with construction of the proposed project, particularly trenching, may temporarily result in increased sedimentation into the Alamo River; however, due to the high levels of sedimentation already occurring to the Alamo River from loose soils associated with agricultural activities in the vicinity, such increases would be minor. Reported sewage leaks due to inadequate infrastructure within the project area would also be eliminated by the proposed project, which would improve the water quality of the Alamo River. Thus, no significant short-term or long-term changes to wetlands associated with the Alamo River are anticipated from the proposed project.

d. **Less than Significant.** No significant biological resources or habitats are located within or adjacent to the project area. The project would not have an adverse effect on riparian habitat or any other sensitive natural community. The proposed project would occur on previously disturbed or developed land. No large or specimen trees would be removed as a result of the proposed project. Therefore, no migratory species would be impacted by the proposed project. Based on the distance from habitat areas, the short-term construction noise impacts associated with the proposed project are not anticipated to be perceptible by sensitive or migratory species.

e & f. **No Impact**. The proposed project would not conflict with any local policies or ordinances protecting biological resources. Further, the proposed project would not conflict with an adopted Habitat Conservation Plan, National Community Conservation Plan, or any other approved designations.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
3.5 CULTURAL RESOURCES Would the proposal:				
a. Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?				X
b. Cause a substantial adverse change in the significance of an archeological resource pursuant to §15064.5?				X
c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				X
d. Disturb any human remains, including those interred outside of formal cemeteries?				X

Existing Setting

The City of Holtville has identified a number of structures that embody the local history and community heritage including City Hall, the old fire station in Holt Park, and the weather tower (City of Holtville 2003). The City has adopted a program to identify buildings and structures of local historical importance with the goal to improve and preserve these structures. One property near Holtville is listed as a California Historical Landmark – the Tecolote Rancho Site, located approximately 1 mile west of the City. The Tecolote Rancho was home to Harold Bell Wright, a prolific author whose books brought the Imperial Valley and its agricultural wealth to the attention of the nation in the early 1900s (California State Parks 2010). The Rancho is located approximately 1 mile southwest from the project site. No properties in the Holtville vicinity are listed on the National Register of Historic Places (National Park Service 2010). The project area is not known to contain any cultural resources, and any potential existing cultural sites would likely have been disturbed or identified by previous development activities.

Discussion of Checklist Answers

a – d. **No Impact.** The City of Holtville has identified a number of structures that embody the local history and community heritage; however, none of these structures are located within the project area. No known historical resources, archeological resources, paleontological resources, or human remains will be affected by the proposed project. There is always the potential that unknown archaeological resources could be discovered during any development project in the City. Nevertheless, the possibility to encounter previously undiscovered cultural resources exists; therefore, should cultural or archaeological resources be encountered during project

construction, construction activity would cease until a qualified archaeologist performed an assessment of the resources uncovered and a determination of any required conservation and/or related efforts (e.g., further investigation) is made.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
3.6 GEOLOGY AND SOILS Would the project:				
a. Expose people or structure to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated in 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.			X	
ii. Strong seismic ground shaking?			X	
iii. Seismic-related ground failure, including liquefaction?			X	
iv. Landslides?			X	
b. Result in substantial soil erosion or loss of topsoil?			X	
c. Be located on a geologic unit or soil that is unstable, or that would become unstable because of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?			X	
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?			X	
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?				X

Existing Setting

The project area is located near the southern limit of the Imperial Valley, which lies within the Salton Trough, a major structural trough bounded by the Chocolate Mountains to the northeast and the Peninsular Ranges of Southern California and Baja California on the west. The Salton Sea is the lowest area of the depression and serves as an undrained sink collecting surface

water flows, including the terminus of the Alamo River. The Salton Sea separates the Imperial Valley from the Coachella Valley to the north. The Trough is a structural extension of the Gulf of California. Deposits marking the shoreline of Lake Cahuilla, which formed in prehistoric time, are evident around the Imperial Valley area.

The Imperial Valley is located in a seismically active region and is subject to events along active major regional faults. The most regionally active faults in the area include the San Andreas Fault, which borders the east side of the Salton Trough, and the San Jacinto and Elsinore faults, which form an extension of the San Andreas Fault to the northwest. The Superstition Mountain Fault, located east of the Elsinore Fault, is not considered a principal active fault in California. The Superstition Hills Fault, located just east of the Superstition Mountain Fault, is considered a principal active fault with historic surface rupture (California Department of Conservation 1994). Other smaller faults exist throughout the Salton Trough, including the Imperial Fault. The Imperial Valley region has experienced more small to moderate earthquakes than any other section along the San Andreas Fault (US Navy 1999). The region has also been subject to a substantial number of larger quakes, with more than 11 earthquakes of magnitude 6.0 or greater on the Richter scale recorded in the last century. The largest recorded quake was a magnitude 7.1 which occurred along the Imperial Fault in 1940 and resulted in substantial infrastructure damage (Imperial County 2008).

Alluvium, Sand Dune, and Lacustrine Soils

The Imperial Valley comprises lacustrine (lake-deposited), alluvial (stream-deposited), and aeolian (wind-blown) materials. Lakebed sediments, which are fine and moderately fine-textured, were deposited from the bed of the prehistoric Lake Cahuilla. Additional sources of sedimentation include aeolian deposition and erosion of adjacent highlands. The entire sequence of alluvial, lacustrine, and aeolian sediments is underlain by the Imperial Formation, which rests on granitic and metamorphic basement rocks (US Navy 1999).

Salinity control is the major soils management concern in the arid Imperial Valley. More than 1 ton of salt is left in the land with every acre-foot of irrigation water, and the accumulation of salt in the root zone can cause soils to become too saline for crop growth. Soil erosion is not a serious concern in this area, although limited areas next to river bluffs and canyons are subject to erosion hazards.

Discussion of Checklist Answers

a. **Less than Significant**. Since the Imperial Valley is located in a seismically active region and is subject to events along active major regional faults, the risk of induced seismic activity is of concern. The project proposes new infrastructure placed in a seismically active region. No known active faults are located in the City of Holtville and no Alquist-Priolo Earthquake Fault Zoning has been established by the State for the planning area. Consequently, the potential for ground rupture is low. However, numerous faults and a seismic zone are located in the vicinity of the Holtville and the proposed project would potentially be affected by ground shaking from these faults. Therefore, the proposed facilities would be constructed in accordance with the California State Building Code (Title 24 of the California Administrative Code), which contains specifications to minimize adverse effects due to ground shaking from earthquakes and liquefaction. Despite these measures, the proposed water and wastewater pipeline infrastructure would be susceptible to rupture during a seismic event for which there is no further mitigation.

Prior to construction, geotechnical services shall include the mobilization of drilling and testing equipment to provide the appropriate number of test holes and borings to assess and determine soil bearing capacity, corrosiveness and any additional tests determined necessary by the geotechnical engineer. With the implementation of a geotechnical assessment, and inclusion of appropriate building and construction specifications and standards, impacts to the proposed facilities resulting from geologic hazards are expected to be less than significant. The project would not expose people or structures to substantial adverse effects related to the aforementioned geologic hazards.

b. **Less than Significant.** Soil erosion is not a serious concern from the proposed project due to the limited area of disturbance, implementation of best management practices, and level topography. Therefore, erosion impacts and topsoil loss would be less than significant.

c & d. **Less than Significant.** Liquefaction due to seismic activity is also a potential geological hazard. Therefore, the proposed facilities would be constructed in accordance with the California State Building Code (Title 24 of the California Administrative Code), which contains specifications to minimize adverse effects due to ground shaking from earthquakes and liquefaction. Since this construction would be occurring in previously disturbed or developed area, excavation trenches would not substantially affect soils, geology, or topography; therefore, potential impacts from the wastewater collection pipeline and water distribution system would be less than significant.

e. **No Impact.** A sewer system exists throughout the proposed project area and an extension to this system would result as part of the proposed project.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
3.7 GREENHOUSE GAS EMISSIONS Would the project:				
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X	
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?				X

Existing Setting

Global climate change can be measured by changes in wind patterns, storms, precipitation, and temperature. Scientific consensus has identified human-related emissions of greenhouse gases (GHGs) above natural levels is a significant contributor to global climate change. GHG are substances that trap heat in the atmosphere and regulate the Earth's temperature, and include water vapor, carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), ground level ozone, and fluorinated gases, including: chlorofluorocarbons (CFCs), hydrochlorofluorocarbons (HCFCs), and halons.

Primary activities associated with GHG emissions include transportation, utilities (e.g., power generation and transport), industry, manufacturing, agriculture, and residential. End-use sector sources of GHG emissions in California are as follows: transportation (40.7 percent), electricity generation (22.2 percent), industry (20.5 percent), agriculture and forestry (8.3 percent) and other (8.3 percent) (California Energy Commission [CEC] 2005). The main sources of increased concentrations of GHG due to human activity include the combustion of fossil fuels and deforestation (e.g., CO_2), livestock and rice paddy farming, land use and wetland depletions, and landfill emissions (e.g., CH_4), refrigeration systems and fire suppression systems use and manufacturing (e.g., CFCs), and agricultural activities, including the use of fertilizers.

Discussion of Checklist Answers

a. **Less than Significant.** The proposed project would involve trenching, excavation, and the use of heavy machinery during construction. Operation of the proposed project would result in increased energy required to pump potable water through the approximately 25,000 lineal feet of additional infrastructure, resulting in an increase of approximately 15 percent over current pumping energy use. This would indirectly contribute to GHG emissions through increased power demand from the utility provider (Southern California Gas). Although it is possible to generally estimate a project's incremental contribution of GHGs into the atmosphere, it is typically not possible to determine whether or how an individual project's relatively small incremental contribution might translate into physical effects on the environment. Given the complex interactions between various global and regional-scale physical, chemical,

atmospheric, terrestrial, and aquatic systems that result in the physical expressions of global climate change, it is impossible to discern whether the presence or absence of GHGs emitted by the project would result in any altered conditions. However, it can be stated that both the construction and the operation of the proposed project would incrementally contribute to GHG emissions; however given the limited construction and energy utilization of the proposed project, contributions would be considered less than significant.

b. **Less than Significant.** The only adopted applicable plan to the project that reduces GHGs is AB 32, which has identified 1990 emission levels as a goal to be achieved by the year 2020 through adoption of AB 32. To meet this goal, California would need to generate lower levels of GHG emissions than current levels. It is recognized that for most projects there is no simple metric available to determine if a single project would help or hinder meeting the AB 32 emission goals. As discussed above, the project would not result in a substantial increase in the emission of GHGs from construction activities, generation of vehicle traffic, and energy use. Therefore, limited increase should not hinder statewide compliance with the goals of AB 32 and contributions would be less than significant.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
3.8 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?			X	
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?			X	
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			X	
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?				X
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 pubic airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				X
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?				X
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				X
h. Expose people of 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?				X

Existing Setting

Hazardous materials include medical and industrial wastes, pesticides, herbicides, radioactive materials, combustible fuels, and biohazardous material (i.e., biological material capable of causing disease in humans). Improper use, storage, transport, or disposal of these materials may result in harm to humans, surface or ground water degradation, air pollution, fire, or explosion. Current operation of the wastewater treatment system does not utilize hazardous materials. Hazardous waste byproducts of the system are contained and disposed of according to established guidelines. A leaking underground fuel tank is undergoing cleanup due to an unauthorized release from an underground storage tank, just north of the project area, on Holt Road north of Eleventh Street (DTSC 2009). Solid waste generated within Holtville is collected by Valley Environmental Services, a private firm under contract with the City. Collected waste is then disposed of at the Allied Imperial Landfill and Recycling Facilities located in the City of Imperial. The landfill is a 42-acre Class III landfill that opened in January 2000 and is permitted for an average of 932,000 pounds of solid waste per day (City of Holtville 2006). The use of pesticides in agricultural operations is a large source of hazardous materials within the planning area since the City and project area is surrounded by agricultural operations. The City does not have direct authority over the use of pesticides. When potentially hazardous materials generated within the City need to be disposed of, the City contacts the County Health Department. The Heath Department makes a determination whether or not the materials can be disposed of through the City's normal solid waste provider, or if it needs to be handled by a hazardous waste specialist (City of Holtville 2003).

Discussion of Checklist Answers

a – b. **Less Than Significant.** The proposed project would involve the transport of wastewater through 8-inch diameter pipes located beneath the ground. However, as this would be an improvement to the current substandard 4-inch diameter pipes, the proposed project would not create any additional hazard associated with the transport or disposal of hazardous waste.

c. **Less Than Significant.** The following schools are within 0.25 miles of the proposed project area: Holtville High School, Holtville Junior High School, and Sam Webb Continuation High School. Since the proposed project would improve the existing wastewater pipeline and the potential risk of leakage of the proposed pipeline would be low, the potential to emit hazardous emissions within 0.25 miles of a school would be less than significant.

d. **No Impact.** The proposed project area does not contain any sites that are listed as hazardous materials sites, compiled pursuant to Government Code Section 65962.5; however, a LUFT site has been identified adjacent to the project area on Holt Road and 11 . The site is currently under remediation and no construction would occur within the contaminated site. Therefore, the proposed project would have no impact on such sites.

e & f. **No Impact.** The Holtville Airport is located approximately 5 miles northeast of the project site. The proposed project area is not located within 2 miles of any airport or private airstrip; therefore project impacts would not result in a safety hazard for people residing or working in the Service Area and there would be no impact.

g. **No Impact.** The proposed project consists of a pipeline network buried beneath ground level; therefore, the project would have no impact on adopted emergency response plans or emergency evacuation plans.

h. **No Impact.** The proposed project area is not directly adjacent to hillside areas that have wildfire risks. Developed and agricultural areas, such as the project area vicinity, are not subject to wildland fires. Since the project would not create any new structures or change existing land uses, the proposed project would not expose people or structures to risk of loss, injury or death involving wildland fires.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
3.9 HYDROLOGY AND WATER QUALITY Would the project:				
a. Violate any water quality standards or waste discharge requirements?			X	
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 existing land uses or planned uses for which permits have been granted)?				X
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?			X	
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?			X	
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?			X	
f. Otherwise substantially degrade water quality?			X	
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?				X
h. Place within a 100-year flood hazard area structures which would impede or redirect flood flows?				X
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?				X
j. Inundation by seiche, tsunami, or mudflow?				X

Existing Setting

Surface Water

Imperial County receives its water from a variety of sources. The main source of surface water comes from the Colorado River via the All-American Canal. The City of Holtville controls drainage primarily through street-side stormwater drainage channels. There are several relatively small areas served by below-grade stormwater gravity pipelines and retention basins. Several of the retention basins discharge the stored stormwater via pump stations and force mains. The stormwater channels convey stormwater flow directly into the Alamo River, or discharge water into a large retention basin adjacent to the City of Holtville Water Treatment Facility Raw Water Storage Ponds, which eventually drains to the Alamo River (City of Holtville 2006). The Alamo River and irrigation channels are the main source of surface water in and around the City of Holtville. The Alamo River, which flows along the City's southern border, originates near the Colorado River. The Alamo River flows north from the Mexicali Valley and crosses the international border approximately 11 miles to the south. Flow continues north from Holtville through Imperial County and finally drains into the Salton Sea approximately 25 miles north of the City of Holtville. The Alamo River is in many places a heavily vegetated ravine that contains low flows of water most of the year.

The IID supplies water to Holtville from the Colorado River via the All-American Canal. According to the IID, Imperial Valley's agricultural industry is estimated to use 98 percent of the region's water supply.

Groundwater

Shallow groundwater aquifers underlie much of the Imperial Valley. Based on pumping data and well studies, depth to groundwater is 6 to 8 ft below ground surface (bgs) throughout most of the Imperial Valley (Imperial County 1993). Groundwater is stored in the Pleistocene sediments that comprise the Valley floor. These fine-grained lake sediments generally inhibit groundwater movement and have trapped salt leaching from agricultural fields. Salinity in groundwater is high, and the few wells in the central part of the Valley are for domestic use only (Imperial County 1993). A majority of the agricultural and urban water supply is imported from other locations via canals. An additional deep water aquifer underlying much of the Imperial Valley has been estimated to contain 1.1 to 3.0 billion acre ft of water; however, only approximately 20 percent of the aquifer's stored water is estimated as recoverable (Imperial County 2008).

The primary source of recharge is the Colorado River, and recharge by underflow from tributary areas is small by comparison. Direct recharge from rainfall is very minor (Imperial County 1993). Unlined canals, such as the All-American and the East Highline, also contribute to the recharge of shallow groundwater aquifers. In some Valley areas, fresh water seepage from canals has significantly reduced groundwater salinity (Imperial County 1993).

Floodplains

Flooding is a hazard within the City of Holtville and surrounding areas. Flooding hazard is greatest on either side of the Alamo River and in an eastern portion of the City of Holtville. A natural floodplain in the Holtville area is considered to be the area adjacent to the Alamo River. This area is mapped as *Zone AE* on FEMA Flood Insurance Rate Map (FIRM) panels 06025C-

1742C, -1734C, and -1775C (FEMA 2008). *Zone AE* represents areas within the 100-year floodplain. Limited areas of Zone X surround some of the 100-year flood plain, which indicates areas with a 0.2 percent chance of flood; areas of 1 percent annual chance flood with average depths of less than one foot or with drainage areas less than 1 mi^2; and areas protected by levees from one percent annual chance of flood. Most of the potential flood areas around the Alamo River are designated for open space park uses by the Land Use Element; however, new development could potentially be located within a flood plain susceptible to a 100-year flood event. Additionally, the IID canals and laterals are often open and unprotected; however, flow levels are controlled and hazards from significant flooding from these sources is minimal.

Inadequate drainage facilities could cause flooding within the developed portions of the City. Holtville's 1999 Service Area Plan identifies the drainage system needed to meet anticipated demand by the Year 2020. While no existing problem with storm drainpipes was identified, future development within the City's Sphere of Influence (SOI) will require new developments to provide adequate stormwater drainage systems to address runoff (City of Holtville 2003). The proposed project does not lie within any known floodplains.

Water Quality

The existence of most surface waters in the Imperial Valley is dependent primarily upon the inflow of irrigation water from the Colorado River via a series of canals. While canals provide generally high quality freshwater to the Valley, the leaching of salts from irrigated areas increases salinity and decreases water quality in Valley surface water drainages. These drainages subsequently flow into the Salton Sea, an inland water body with present salinity concentrations slightly greater than ocean water (Imperial County 1993a).

The New River and Alamo River flow into the Imperial Valley from Mexico (Imperial County 1993a). These surface waters contain significantly high waste and contamination loads due to agricultural irrigation, deposition of trash, and untreated discharges from sewage systems in the Mexicali, Mexico area (Imperial County 1993a). Both are listed on the Clean Water Act Section 303(d) list (CalEPA 2006). The New River flows into the Salton Sea, and its significantly high waste and contamination loads have adversely affected water quality in the Sea (Imperial County 1993a).

The IID supplies water to Holtville from the Colorado River via IID facilities and canals. The City owns and operates a water treatment plant that provides clarification, filtration, and disinfection of water from the Colorado River. Although the Colorado River water is generally of good quality, the amount of dissolved solids (primarily salt) is very high. The City has little control over the quality of the water supplied to it, since the quality is primarily determined by land uses located along the Colorado River outside the State of California (City of Holtville 2003).

The City reduces pollutants in urban runoff to improve water quality through participation in the National Pollutant Discharge Elimination System (NPDES) program. According to the City's NPDES permit, all new development projects and substantial rehabilitation projects are required to incorporate Best Management Practices (BMPs). Another factor impacting local water quality and the capacity of the wastewater treatment facility is the presence of numerous free flowing artesian wells within the planning area, which now flow into the wastewater treatment plant. The City has implemented a program to identify and cap or divert the flow of these artesian wells. Once located, the City will map these wells and periodically evaluate progress toward

capping or diverting them so that they do not reduce water quality or wastewater treatment capacity (City of Holtville 2003).

Discussion of Checklist Answers

a. **Less than Significant.** Implementation of the proposed project is intended to provide clean, reliable, and effective potable water distribution to residents of the service area and within the under-served portions of the City of Holtville; further, it is intended to eliminate sewage leaks caused by inadequate infrastructure through the development on appropriate wastewater collection infrastructure, thereby reducing the potential for untreated or poorly treated wastewater to enter the environment (e.g., surface water, groundwater). The project would improve the delivery mechanism for water provision and would supply treated water to residents currently drawing water from IID canals or hauled water. Prior to construction a Storm Water Pollution Prevention Plan (SWPPP) would be prepared and implementation would adhere to BMPs. The proposed project would not violate any water quality standards or waste discharge requirements and would therefore result in no impact.

b. **No Impact.** The proposed project would not draw from or interfere with the recharge of groundwater resources.

c – f. **Less than Significant.** Drainage throughout the project area is provided primarily through IID canals. No alterations of natural channels or canals would occur from the proposed project. The level terrain of the project area would reduce any potential for erosion to occur. Although existing infrastructure is currently inadequate to properly convey wastewater from the project area, wastewater from the proposed wastewater improvement project area is currently conveyed and treated by the Holtville WWTP. Since wastewater from the project site is currently treated at the Holtville WWTP there would be a negligible increase in wastewater discharge from the WWTP. Reported sewage leaks due to inadequate infrastructure within the project area would also be eliminated through project implementation, which would improve the water quality of the Alamo River. Thus, no significant long-term changes to Alamo Creek or the Salton Sea are anticipated from the proposed project. No short- or long-term direct or indirect impacts to floodplains would occur under implementation of the proposed project.

g – i. **No Impact.** The project area is not located within any 100-year flood hazard zones or dam inundation areas. No impacts specific to the 100-year flood hazard or dam inundation areas would occur.

j. **No Impact.** The project area is not located within identified tsunami or seiche risk areas, as it is not located in the vicinity of any major water bodies. Potential mudflows do not pose a risk to the project area. Therefore no impacts specific to inundation by seiche, tsunami, or mudflow would occur.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
3.10 LAND USE PLANNING Would the project:				
a. Physically divide an established community?				X
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 Development Code) adopted for the purpose of avoiding or mitigating an environmental effect?				X
c. Conflict with any applicable habitat conservation plan or natural community conservation plan?				X

Existing Setting

Land use in the Holtville border region is characterized as agricultural and residential uses. The City is characterized as a residential community with quiet residential neighborhoods containing a mixture of moderate sized housing units, with the most prevalent dwelling unit density of two units per acre. The bulk of the low-density housing is located in the central portion of the City limits. Within the City limits there are also small areas of medium density and high-density residential development. The bulk of the residential development outside of the City but within the SOI is designated as rural residential, with a dwelling unit density of one unit per acre. This is characteristic of the proposed project area. Commercial development is located primarily along the central City corridor fronting State Route 115 (Fifth Street). Industrial development is largely on the southern and western edges of City limits, adjacent to the Alamo River, and consists primarily of agricultural packing and processing facilities (City of Holtville 2006).

Outside the City limits and SOI of the City of Holtville, adjacent land uses are almost entirely agricultural. Crop production in the area is primarily carrots, lettuce, chard, cotton, and alfalfa. Much of the land within the City's planning area is designated agricultural and the City promotes Williamson Act agreements to preserve agricultural uses and lands from further urban development (City of Holtville 2003). The Alamo River is located on the City's western edge, and land immediately adjacent to the river is designated as 'Open Space Recreation'.
Significance of potential land use and infrastructure impacts is based on the level of land use sensitivity in areas affected by a proposed project. In general, land use and infrastructure impacts would be significant if they would:

- Be inconsistent or in noncompliance with applicable land use plans or policies
- Preclude the viability of existing land use
- Preclude continued use or occupation of an area

- Be incompatible with adjacent or vicinity land use to the extent that public health or safety is threatened
- Result in the inability of existing infrastructure to function effectively for its designed purpose.

Discussion of Checklist Answers

a. **No Impact.** The proposed project would not create a physical division within a community.

b. **No Impact.** The wastewater collection pipeline and water distribution system would not conflict with any applicable land use plan, policy, or regulation.

c. **No Impact.** There are no habitat preservation plans or natural community conservation plans within or directly adjacent to the proposed project area.

Issues	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
3.11 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?				X
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?				X

Existing Setting

There are no known mineral resources within or near the project area.

Discussion of Checklist Answers

a & b. **No Impact.** The proposed project does not apply to areas known to contain mineral resources. The proposed project area currently does not have active aggregate or petroleum mining operations.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
3.12 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 or noise ordinance, or applicable standards of other agencies?			X	
b. Exposure of persons to or generation of excessive groundbourne vibration or groundbourne noise levels?			X	
c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			X	
d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			X	
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?				X
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?				X

Existing Setting

The noise environment in the City of Holtville is generally low due to the low population density. The majority of noise generated in the City of Holtville is from vehicular traffic, although stationary sources such as packing sheds and agricultural coolers also create high noise levels (City of Holtville 2003). The Holtville Airport is located east of the City, 11 miles north of the international border.

The international border is located south of the City of Holtville. State Highway 7 runs north-south, from the border northward into Imperial County. This highway is the principal route for all vehicles traveling to or from Mexico in the area. US Interstate 8 (I-8), located 2.5 miles south of Holtville, is a major east-west route extending from San Diego into Arizona. I-8 does not cross the international border.

The noise environment of the project area is characteristic of a very low density urban environment. Vehicular traffic is the primary generator of noise in the project area.

Discussion of Checklist Answers

a. **Less than Significant.** Long-term operation of the proposed project would consist of an underground pipeline system which would have no associated noise generation. Construction activities would result in short-term increases in ambient noise levels; however, such increases would be temporary and implementation of BMPs – such as the use of equipment sound mufflers and restriction of construction activity to normal working hours. The project would be required to be complaint with Imperial County Noise Element standards, which apply to noise measured at the nearest sensitive receptor (adjacent residences). County standards would require construction equipment operation to be limited to the hours of 7 a.m. to 7 p.m. Monday through Friday, and 9 a.m. to 5 p.m. Saturday. No commercial construction operations are permitted on Sunday or holidays (Imperial County 2008). Therefore, the proposed project would not result in noise generation inconsistent with the General Plan or noise ordinances.

b. **Less than Significant.** Implementation of the project would include trenching, soil movement, pipe laying, and other construction activities over an 8-month period. A variety of equipment would be required for construction and temporary noise increases would occur (Table 3.1). Construction noise generated during implementation would be reduced through mitigation– such as the use of equipment sound mufflers and restriction of construction activity to normal working hours. Construction activities over the implementation period would expose Holtville residence to less than significant groundbourne vibration and groundboume noise levels.

Table 3-1. Average Noise Generation by Equipment Type

Equipment Type	Noise Level (dBA)
Whacker Packer (jumping jack)	<90
Jackhammer	<86
Trencher	<86
Excavator	<90
Front loader	<90
Backhoe	<90
Compactor	<90
Cement mixer	<86
Bulldozer	<86
Dump truck	<86
Tank truck	<86
Asphalt truck	<86
Asphalt spreader	<86

c. **Less than Significant.** The long-term operation of the water and wastewater collection system would not generate measurable levels of noise, as the project consists of a static pipeline system that would be located below ground level.

d. **Less than Significant.** Refer to checklist answer (b).

e. **No Impact.** The proposed project is not located within or in the vicinity of an airport. The Holtville Airstrip is located outside the planning area and no new residents would be exposed to excessive noise levels.

f. **No Impact.** The proposed project is not within the vicinity of a private airstrip. The Holtville Airstrip is located outside the planning area and no new residents would be exposed to excessive noise levels.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
3.13 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)?			X	
b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				X
c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				X

Existing Setting

Imperial County

In 2008, the estimated population of Imperial County was 175,622. The 2009 estimated population of Imperial County was 179,254, a growth of 2.1 percent from the previous year (CADOF 2009). The County has grown by approximately 26 percent since 2000, when the population was 142,361 (US Census Bureau 2000).

As of December 2009, Imperial County has a total labor force of approximately 75,303, with an unemployment rate of approximately 27.7 percent, or 20,890 persons (US Bureau of Labor Statistics [BLS] 2009). Due to the County's significant seasonal agricultural economy, greater seasonal variations in unemployment occur, thereby resulting in consistently high unemployment rates. According to the United States Bureau of Economic Analysis (US BEA), the main source of employment in Imperial County in 2007 was State and local governments (21.3 percent of total employment). The next greatest sources of employment were retail trade (13.3 percent), health care and social assistance (6.0 percent), farm employment (5.4 percent), and accommodation and food services (5.4 percent) (US BEA 2007).

The Imperial Valley has a higher percentage of poverty than many regions in California (US Census Bureau 2008). In Imperial County, the estimated 2008 median household income was $41,757. About 9 percent of households earn less than $10,000 per year, and approximately 22 percent of households earn between $10,000 and $25,000 per year (US Census Bureau 2008).

City of Holtville

According to the 2000 Decennial Census, the population of the City of Holtville was 5,612 (US Census Bureau 2000). The estimated 2009 population of Holtville was 6,515, marking an approximately 16 percent increase over 2000 levels (CADOF 2009). According to the Southern California Association of Governments (SCAG), the population of the City of Holtville is projected to increase to approximately 6,671 by 2020 and to approximately 7,309 by 2035 (SCAG 2009). Population estimates and percentage increase over 2000 population levels are summarized in Table 3-2 below.

Table 3-2. Population Trends in Holtville, California

	2000	2010	2020	2035
Total Population	5,612	5,939	6,671	7,309
Percent Increase from 2000	--	5.5%	15.9%	24.3%

Sources: SCAG 2009; US Census Bureau 2000.

The total area of the City of Holtville is approximately 750 acres. Given that the project area for the water infrastructure improvements is 210 acres, the projected population increase in the service area is expected to be 225 persons between 2008 and 2020 on a linear proportional basis (BECC 2009b).

Discussion of Checklist Answers

a. **Less than Significant**. The water distribution project consists of providing water distribution infrastructure to serve approximately 109 parcels, of which 19 are currently vacant lands. The water distribution infrastructure would provide the connections to existing residences and would maintain capacity for the foreseeable addition of future residences in the project area. The City of Holtville Service Area Plan projects the future buildout of the project area and plans for the continued provision of City services to this area. The 19 vacant parcels in the project area are projected for residential development consistent with the project area and the proposed project would not induce substantial population growth beyond projected increases within the project area or in the vicinity of the project. The provision of water distribution connections could increase the pace at which the project area is developed; however buildout would not constitute a substantial population increase. Therefore, indirect induced population growth through the extension of roads or other infrastructure would result in a less than significant impact.

b & c. **No Impact**. The proposed project would not displace existing housing located within the project area.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
3.14 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:				
i. Fire protection?				X
ii. Police protection?				X
iii. Schools?				X
iv. Parks?				X
v. Other Public Facilities?			X	

Existing Setting

The City of Holtville provides the following public services to the residents in the proposed project area: administrative, law enforcement, fire protection, transportation, parks and recreation, library, drainage, water and wastewater treatment and collection.

Discussion of Checklist Answers

a.i – a.iv. **No Impact.** The proposed project consists of the modification of the underground wastewater collection pipeline and water distribution pipeline. Since the project would not physically alter any structures or government facilities, and there would be less than significant impacts on population and housing (see 3.12), there would be no impacts associated with fire protection, police protection, schools, or parks.

a.v. **Less than Significant.** The proposed project involves the modification of the water and wastewater treatment and collection pipeline network. The wastewater collection improvement would be drained exclusively by gravity mains and would not require additional energy use or facilities. The City's proposed water distribution system expansion will result in a modest increase in required operation and maintenance costs and effort. This expansion will add 109 new meters, nearly 25,000 linear ft of new 8- and 12-inch-diameter water lines, and associated valves that will be operated and maintained by the City of Holtville. The City of Holtville has the capacity to operate and maintain the proposed expansions (BECC 2009b). Since the project would improve the existing pipeline network, and adequate capacity exists in the existing pumping and treatment infrastructure to allow for this improvement, impacts associated with water and wastewater collection and treatment public services would be less than significant.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
3.15 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?				X
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?				X

Existing Setting

There are no designated open space recreational areas within the project area. The City of Holtville owns, operates, and manages three parks (Holt Park, Ralph Samaha Park, and Mack Park) which cover 13.96 acres. The City's adopted Conservation/Open Space Element specifies a goal of three acres of open space per 1,000 population, consistent with the State Quimby Act. Currently, parks represent about 2.54 acres per 1,000 population (City of Holtville 2006). However, open space recreation is designated along the entire length of Alamo River as it flows through the City of Holtville, and the City has expressed its intentions of protecting and developing the recreational value of the Alamo River (City of Holtville 2003). Future recreational development of the Alamo River may also include a hiking trail along the river.

Discussion of Checklist Answers

a. **Less than Significant.** The water distribution project consists of providing water distribution infrastructure to serve approximately 109 parcels, of which 19 are currently vacant lands. The water distribution infrastructure would provide the connections to existing residences and would maintain capacity for the foreseeable addition of future residences in the project area. The City of Holtville Service Area Plan projects the future buildout of the project area and plans for the continued provision of City services to this area, including the provision of recreational facilities. The 19 vacant parcels in the project area are projected for residential development consistent with the project area and the proposed project would not induce substantial population growth beyond projected increases within the project area or in the vicinity of the project. Since the proposed project would not directly induce growth and would constitute a less than significant impact to population and housing (see 3.12), the project would not substantially increase the use of existing regional parks and other recreational facilities.

b. **No Impact.** The proposed project does not include recreational facilities or require the construction or expansion of recreational facilities.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
3.16 TRANSPORTATION/TRAFFIC Would the proposal:				
a. Cause an increase in traffic that 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)?			X	
b. Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?				X
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?				X
d. Substantially increase hazards due to a design feature (e.g., sharp curves of dangerous intersections) or incompatible uses (e.g., farm equipment)?				X
e. Result in inadequate emergency access?			X	
f. Result in inadequate parking capacity?			X	
g. Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?			X	

Existing Setting

The City of Holtville uses a grid network of roads to provide an easy and convenient traverse of the City. Traffic on the roads includes personal vehicles, busses, farm equipment, bicycles, pedestrians, and other forms of alternate transportation. Traffic in the City of Holtville is characteristic of a low-density urban environment. In addition to the grid network of roads within the City, State Highway 115 runs through the downtown area of the City and along the western boundary of the City. Evan Hewes Highway also intercepts State Highway 115 at the western boundary of the City.

Discussion of Checklist Answers

a. **Less than Significant.** The proposed project would not cause a permanent increase in traffic volume, as it would not involve the addition, modification or removal of any roads. During construction, roadway access by residents or users of the proposed area would be temporarily restricted. Short-term impacts regarding access would be minimized by the use of standard engineering and traffic management practices and adherence to the *Engineering Design Guidelines Manual for the Preparation and Checking of Street Improvement, Drainage, and Grading Plans within Imperial County*. Once operational, wastewater treatment and water distribution infrastructure would not impact roadways or other transportation methods.

b & c. **No Impact.** The proposed project would result in less than significant impacts to population and housing (see 3.12), and therefore will not substantially increase traffic loads. Further, the proposed project does not involve the addition, modification or removal of any roads; therefore, causing no impact to the volume to capacity ratio, or congestion at intersections.

c. **No Impact.** No airports are located within or in close proximity to the project area. The Holtville Airport is located approximately 5 miles northeast of the project area. Implementation of this project would not affect air traffic at any of the airports within Imperial County or at any other airport within the region.

d – f. **Less than Significant.** The proposed project does not involve the redesign or modification of the road network. The proposed project involves trenching and construction activities, which would take place on existing roads within the project area. However, impacts to the design, emergency access, and parking along the roads during construction would be less than significant with implementation of standard engineering and traffic management practices.

g. **Less than Significant.** The proposed project would have no impact on policies or plans regarding alternative transportation, as it would not alter the existing road network. However, the Holtville General Plan states that extension and improvements of sewer lines and drainage facilities underneath roadways should coincide with scheduled roadway construction and maintenance, when possible (City of Holtville 2003).

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
3.17 UTILITIES AND SERVICE SYSTEMS Would the project:				
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?			X	
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?			X	
c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could have significant environmental effects?			X	
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements necessary?			X	
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?			X	
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?			X	
g. Comply with federal, state, and local statutes and regulations related to solid waste?			X	

Existing Setting

The City of Holtville provides sewer service to all areas within the City boundary as well as all areas of concentrated residential development within the City's SOI, with the exception of an area south of the City and the Alamo River, along Orchard Road. The existing system is laid out along the City's established roadway grid with most of the collection lines located in service alleys between the main south and north trending streets. These lines discharge to the City's primary trunk line, located in Ninth Street. The collection system also extends outside the City boundary to serve a small residential customer base within the City's SOI. The collection system generally flows by gravity to the northwest corner of the City and then continues to

gravity flow approximately 2 miles away outside of the City limits and the SOI to the City's wastewater treatment plant (City of Holtville 2006).

The existing wastewater collection system primarily consists of vitrified clay pipes, with some PVC pipe serving newer developments. These pipes range from 6 inches to 18 inches in diameter. Some of the older pipelines within the Holtville are approximately 75 years old. The existing sewer outfall pipe is in poor condition and susceptible to high levels of infiltration and inflow due to proximity an IID concrete- and earth-lined raw water supply lateral (Analysis of Sanitary Sewer Outfall Pipeline, Holt Group, February 25, 2005).

Most of the pipe used in the existing distribution system is fairly dated asbestos cement pipe (ACP). Pipe sizes range from 2 to 16 inches in diameter. Although ACP has been in use since 1900, these pipes typically date from about 1950 to 1980. If properly installed, ACP is very durable and, because it does not contain metal, it is considered noncorrosive. When ACP is damaged, however, repairs can be challenging because it is difficult to ensure a tight seal on repair clamps. Like the wastewater collection system pipes, the piping to new developments consists predominately of PVC. This piping is relatively new, has a long life expectancy, and is easily repaired.

The City of Holtville WWTP was initially construction in 1972. The plant has been expanded and updated and expanded for a current average daily flow of 0.85 million gallons per day (mgd), a peak daily flow of 1.16 mg, a biochemical oxygen demand of 300 mg/l and suspended solids of 300 mg/l. The present average daily flow is less at 0.54 mgd and the influent wastewater characteristics based on limited data is also lower from biochemical oxygen demand and suspended solids at approximately 150 mg/l for each (City of Holtville 2006).

On a regional level, Hoover Dam and several other dams, including Imperial Dam have been built along the Colorado River to provide an effective and efficient flood management water storage system. On a local level within the City of Holtville, drainage is primarily controlled through gravity surface flow street systems. Within the western portion of the project area (west of Figueroa Avenue), drainage flows either westerly to Melon Avenue or north to an open channel swale at the northeast corner of Holt Avenue and Tenth Street. East of Figueroa Avenue, drainage occurs easterly to existing retention basins, which either retain the stormwater or direct the stormwater to the Pear Drain located along the east side of Towland Road (City of Holtville 2006).

The existing water system for Holtville is owned and operated by the City. Currently, the City provides water to its customers by a means of service connections through one pressure zone. The City of Holtville Water Treatment Facility is located along the southerly boundary of the City at 180 E. Fourth Street along the west side of Fern Avenue. The water treatment plant produces an average daily flow of 1.5 million gallons of potable water per day. The water treatment facility can produce 3 million gallons of treated water per day. The booster pump station conveys the treated water from the water plant to the pipeline distribution system. The booster pump station provides the necessary flow and pressure to the pipeline distribution system. The City's raw water supply comes from the IID, which imports surface water from the Colorado River via the All-American Canal and associated facilities. The City of Holtville maintains three raw water storage ponds, which contain 11.3 million gallons (City of Holtville 2006).

Solid waste generated within Holtville is collected by Valley Environmental Services, a private firm under contract with the City. Collected waste is then disposed of at the Allied Imperial

Landfill and Recycling Facilities located in the City of Imperial. The landfill is a 42-acres Class III landfill that opened in January 2000 and is currently permitted for an average of 932,000 lbs of solid waste per day.

Discussion of Checklist Answers

a – b. **Less than Significant.** Development of proposed wastewater and water distribution would not substantially increase wastewater generation, and would not increase to levels above the requirements of the RWQCB. The proposed wastewater project component is intended to improve deficiencies of older, undersized sewer infrastructure. Sewer lines that may need replacement are generally located underneath existing streets and alleys; therefore, line replacement would involve temporary traffic disruption as well as temporary noise and air quality impacts. Compliance with local construction procedures and regulations, BMPs and proposed improvements to the wastewater collection system would minimize impacts to wastewater to less than significant.

c. **Less than Significant.** Drainage facilities within the project area are considered adequate. No new residences or large areas of new ground cover would occur from the proposed project. Therefore, impacts to storm drain facilities would be less than significant.

d. **Less than Significant.** The total estimated surface water availability is sufficient to meet the projected demand. The existing potable water facility is currently operating at 50 percent capacity and would be able to accommodate the proposed service increase of 315 residents that are underserved or without service, to be connected to the City's municipal water system. The City also has sufficient water supply for the proposed additional connections, and no new or expanded water sources or entitlements would be required. Impacts to water supply would be less than significant.

f. & g. **Less than Significant.** The proposed project would be served by a landfill with sufficient permitted capacity to accommodate such project's solid waste disposal needs and would comply with Federal, State, and local statutes and regulations for solid waste; therefore, project impacts would be less than significant.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
3.18 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 species 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?			X	
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, and the effects of probable future projects)			X	
c. Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?			X	

Discussion of Checklist Answers

a. Because the proposed project consists of improvements to existing wastewater infrastructure and the expansion of the water distribution system within an urbanized area, the proposed project does not have the potential to substantially reduce the habitat of fish or wildlife species, cause a species 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. As discussed in Section 3.4, *Biological Resources*, and Section 3.5, *Cultural Resources*, biological resources in the Plan area are limited and no known cultural resources exist.

b. As noted in Section 3.3, *Air Quality*, the proposed project would incrementally increase global climate change through GHG emissions. The California Legislature has enacted AB 32, the 2006 Global Warming Solutions Act to reduce carbon dioxide emissions to 1990 levels by the year 2020. While general GHG emission inventories are available on the national and state level, no localized or regional GHG emission inventory is yet available. However, as discussed in Air Quality, the project consists entirely of water distribution infrastructure expansion and wastewater collection improvements that would not result in any substantial long-term emissions. Therefore, the proposed project would not create a significant or cumulative impact to global climate change.

c. The proposed project would not result in impacts that would, directly or indirectly, cause substantial adverse affects on human begins. The proposed projects could potentially have short-term adverse effects on human beings, especially during construction activities (i.e., noise, dust, etc.), but none of these were found to be long-term and/or significant. Operational impacts from the proposed project would improve the quality of life for residents of the project area.

4.0 ACRONYMS

°C	degrees Celsius
°F	degrees Fahrenheit
°N	degrees north
°W	degrees west
APCD	Air Pollution Control District
BECC	Border Environment Cooperation Commission
BEIF	Border Environment Infrastructure Fund
bgs	below ground surface
BMPs	Best Management Practices
CAA	Clean Air Act
CADOF	California Department of Finance
CDFG	California Department of Fish and Game
CalEPA	California Environmental Protection Agency
CEQ	Council on Environmental Quality
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
City	City of Holtville
cm	centimeter
CNDDB	California Natural Diversity Database
CWA	Clean Water Act
dB	decibel
dBA	A-weighted decibel
DIP	ductile iron pipe
EID	Environmental Information Document
EO	Executive Order
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
ft	feet
gpcd	gallons per capita per day
gpd	gallons per day
I8	US Interstate 8
IBC	International Boundary Commission
IBEP	Integrated Border Environmental Plan
IBWC	International Boundary and Water Commission
IID	Imperial Irrigation District
in	inch
km	kilometer
km^2	square-kilometer
m	meter

mi^2	square-mile
NAAQS	National Ambient Air Quality Standards
NADB	North American Development Bank
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
Pb	lead
PER	Preliminary Engineering Report
PM_{10}	particulate matter equal to or less than 10 microns in diameter
$PM_{2.5}$	particulate matter equal to or less than 2.5 microns in diameter
PVC	polyvinyl chloride
SCAG	Southern California Association of Governments
SHPO	State Historic Preservation Officer (or Office)
SIP	State Implementation Plan
SWPPP	Storm Water Pollution Prevention Plan
tpy	tons per year
US	United States
USACE	United States Army Corps of Engineers
US BEA	United States Bureau of Economic Analysis
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
VOCs	volatile organic compounds
WWTP	Wastewater Treatment Plant

5.0 REFERENCES

Border Environment Cooperation Commission (BECC). 2000. Development of a Scope of Work for Compliance with the Border Environmental Infrastructure Fund Program Requirements.

BECC. 2009a. Scope of Work to prepare a Preliminary Engineering Report, Environmental Information Document, and Initial Study for Two Projects: (1) Residential Wastewater Collection Pipeline System; (2) Water Distribution System Extension. For the City of Holtville, California. September 2009.

BECC. 2009b. Preliminary Engineering Report for A Residential Wastewater Collection System and Water Distribution System Extension for the City of Holtville, California. 60 Percent Submittal. December.

Calflora. 2009. Taxon Report: Pholisma sonorae. Accessed by AMEC Earth & Environmental Inc, (http://www.calflora.org/cgi-bin/species_query.cgi?where-calrecnum=6452), 8 December 2009.

California Department of Conservation. 1994. Fault-Rupture Hazard Zones in California. Alquist-Priolo Earthquake Fault Zoning Act with Index to Earthquake Fault Zone Maps. Special Publication 42. Sacramento, California.

California Department of Finance (CADOF). 2009. E-1 City/County Population Estimates with Percent Change: January 1, 2008 and 2009. Accessed by AMEC Earth & Environmental Inc. (http://www.dof.ca.gov/research/demographic/reports/estimates/e-1/2008-09/), 8 December 2009.

California Department of Fish and Game (CDFG). 2009. California Natural Diversity Database – Rarefind III. Accessed by AMEC Earth & Environmental, Inc. 12 December 2009.

California Department of Public Health. 2009. Selected California Reportable Diseases: Monthly Report. December. Accessed by AMEC Earth & Environmental, Inc. via (http://www.cdph.ca.gov/data/statistics/Documents/CMDEC2009.pdf) 2 February 2010.

California Environmental Protection Agency (CalEPA). 2006. The 2006 303(d) List for the Colorado River Basin. Prepared by the Colorado River Basin Regional Water Quality Control Board. Accessed by AMEC Earth & Environmental, Inc. (http://www.waterboards.ca.gov/coloradoriver/water_issues/programs/tmdl/docs/303d/usepa_final_r7_2006_303dlist.pdf) 9 December 2009.

California Herps. 2009. Phrynosoma mcallii. Accessed by AMEC Earth & Environmental, Inc. (http://www.californiaherps.com/lizards/pages/p.mcallii.html). 8 December 2009.

California State Parks. 2010. California Historical Landmarks – Imperial County. Prepared by the California Office of Historic Preservation. Available at: http://ohp.parks.ca.gov/?page_id=21421.

City of Holtville. 2003. General Plan. August.

City of Holtville. 2006. Service Area Plan/ Municipal Service Review. July.

Department of Toxic Substances Control (DTSC). 2010. EnviroStor: Find Cleanup Sites and Hazardous Waste Permitted Facilities. Accessed via the internet by AMEC Earth & Environmental, Inc. (http://www.envirostor.dtsc.ca.gov/public/) 12 February 2010.

Federal Emergency Management Agency (FEMA). 2008. Flood Insurance Rate Map panel numbers 040091 -004B, -005B, -007B, and -008B. Accessed by AMEC Earth & Environmental, Inc. (http://www.fema.gov), 27 August 2008.

Federal Register. 2004. April 6, 2004. Proposed Designation of Critical Habitat for Astragalus magdalenae var. peirsonii (Peirson's milk-vetch). Transmitted to AMEC Earth & Environmental, Inc. (http://www.fws.gov/endangered/federalregister/2004/04apr.html), 13 December 2009.

Imperial County. 2008 . General Plan and Elements – 1993, Revised 2008.

Imperial County Air Pollution Control District (APCD). 2007, CEQA Air Quality Handbook. November.

National Park Service. 2010. Impromptu Search on National Register of Historic Places Database. Accessed by AMEC Earth & Environmental, Inc. (http://nrhp.focus.nps.gov/natreghome.do?searchtype=natreghome). 2 February 2010.

Southern California Association of Governments (SCAG). 2009. SCAG Population Projections. Accessed by AMEC Earth & Environmental, Inc. (http://www.scag.ca.gov/census/), 11 December 2009.

United States Bureau of Economic Analysis (US BEA). 2007. Regional Economic Accounts. Accessed by AMEC Earth & Environmental, Inc. (http://www.bea.gov/regional/reis/default.cfm?selTable=CA25N&series=NAICS), 2 February 2010.

United States Bureau of Labor Statistics (US BLS). 2009. Local Area Unemployment Statistics. Accessed by AMEC Earth & Environmental, Inc. (http://www.bls.gov/Lau/), 2 February 2010.

United States Census Bureau (US Census Bureau). 1999. California Income and Poverty for 1999. Accessed by AMEC Earth & Environmental, Inc. (http://factfinder.census.gov/servlet/GCTTable?-geo_id=04000US06&-mt_name= DEC_2000_SF3_U_GCTP14_ST7&-ds_name=DEC_2000_SF3_U). 2 February 2010.

US Census Bureau. 2000. Quickfacts Population Finder. Accessed by AMEC Earth & Environmental, Inc. via the Internet (www.census.gov), 26 August 2008.

US Census Bureau. 2008. American Community Survey. Accessed by AMEC Earth & Environmental, Inc. (http://factfinder.census.gov/) 2 February 2010.

United States Environmental Protection Agency (USEPA). 2009a. The Green Book Nonattainment Areas for Criteria Pollutants. Accessed by AMEC Earth and Environmental, Inc. (http://www.epa.gov/air/oaqps/greenbk/), 9 December 2009.

USEPA. 2009b. County Air Quality Report: Imperial County. Accessed by AMEC Earth & Environmental, Inc. (http://www.epa.gov/air/data/geosel.html), 11 February 2010.

United States Fish and Wildlife Service (USFWS). 2001. U.S. Fish and Wildlife Service Designates Critical Habitat for Endangered Peninsular Bighorn Sheep. Transmitted to AMEC Earth and Environmental, Inc. (http://www.fws.gov/pacific/news/2001/2001-27.htm), 13 December 2009.

USFWS. 2009. National Wetlands Inventory: Wetlands Mapper. Accessed by AMEC Earth & Environmental, Inc. (http://www.fws.gov/wetlands/Data/Mapper.html), 2 February 2010.

United States Navy (US Navy). 1999. Environmental Assessment for Proposed Construction of a Sewer Outfall at NAF El Centro. July.

University of California (UC). 2010. UC Statewide Integrated Pest Management Program – California Weather Data – Description of ELCENTRO.A. Accessed by AMEC Earth & Environmental, Inc. (http://www.ipm.ucdavis.edu/calludt.cgi/WXSTATIONAVG?MAP= &STN= ELCENTRO.A), 2 February 2010.

Appendix A

Combustion Emissions Associated with Construction Activities

Emission Factors –Sewer project

Equipment	Days	Hours of Operation	Emission Factors (tons/hr)				
			CO	NO_x	PM_{10}	SO_x	ROG
grader	1.5	12	0.567	1.623	0.084	0.276	0.148
Loader	7	56	0.424	0.858	0.086	0.115	0.132
excavator	7	56	0.598	1.423	0.078	0.013	0.182
paving equipment	2	16	0.419	0.961	0.069	0.144	0.117
paver	2	16	0.449	0.894	0.067	0.165	0.12

Assumptions: Total construction time frame 1 month, 4.33 week construction period, 5 work days per week, 8 hours per work day, 174 hours of operation total, excavation not required for construction.

Emission Factors –Water project

Equipment	Days	Hours of Operation	Emission Factors (tons/hr)				
			CO	NO_x	PM_{10}	SO_x	ROG
grader	10	80	0.567	1.623	0.084	0.276	0.148
Loader	60	480	0.424	0.858	0.086	0.115	0.132
excavator	60	480	0.598	1.423	0.078	0.013	0.182
paving equipment	10	80	0.419	0.961	0.069	0.144	0.117
paver	10	80	0.449	0.894	0.067	0.165	0.12

Assumptions: Total construction time frame 4.5 month, 19.5 week construction period, 5 work days per week, 8 hours per work day, 780 hours of operation total, excavation not required for construction.

Appendix B

7. Mitigation Measures

Under CEQA, a Lead Agency must mitigate or avoid significant environmental impacts associated with a proposed project. Projects which have been deemed to have a significant environmental impact must identify feasible mitigation measures or alternatives to reduce the impacts below a level of significance. Thus, an EIR must not only identify significant environmental impacts but the EIR must attempt to mitigate or avoid those significant impacts by implementing feasible mitigation measures. Similarly, a MND should identify mitigation measures and include those measures as part of the project to reduce impacts on air quality to a less than significant. To achieve a level of insignificance, a project must reduce its air quality impacts below the threshold levels indicated in Section 4. In order to help Lead Agencies make proper discretionary judgments regarding the feasibility of the mitigation measures pertaining to air quality the following information is provided.

This section contains a menu of mitigation measures which may be used by project proponents and local agencies, to mitigate air quality impacts resulting from any proposed project. **By definition an air quality mitigation measure must go beyond already existing requirements and regulations.** Federal, State and local level regulatory programs currently exist to reduce air pollutant emissions from a variety of sources. Even with these regulatory programs additional mitigation measures are needed to supplement and compliment already existing regulations to help eliminate air quality impacts.

7.1 Construction Equipment and Fugitive PM10 Mitigation Measures

Construction emissions, while traditionally temporary in nature, have been known to cause adverse air quality impacts. In fact, in some cases, construction emissions tend to represent the largest portion of the air quality impacts associated with a given project. Emissions resulting from the common activities associated with general construction and construction equipment both contribute to elevated concentrations of PM_{10}, CO and ozone precursor emissions.

Below are a number of fugitive dust mitigation measures which have been shown to significantly reduce emissions. The following examples are not considered all inclusive. Use of alternative mitigation measures may also be considered if the appropriate documentation is provided.

In no way does compliance with Regulation VIII, Fugitive Dust Control measures alleviate or otherwise preclude a project from compliance with any and all other applicable laws, ordinances, resolutions, rules, statutes or other local, state or federal regulations or requirments.

REGULATION VIII - FUGITIVE DUST CONTROL MEASURES (Most recently adopted) – All construction sites, regardless of size, must comply with the requirements contained within Regulation VIII. Although compliance with Regulation VIII does not constitute mitigation under the reductions attributed to environmental impacts its main purpose is to reduce the amount of PM_{10} entrained into the atmosphere as a result of anthropogenic (man-made) fugitive dust sources. Therefore, under all preliminary modeling a presumption is made that all projects are in compliance with Regulation VIII.

Standard Mitigation Measures for Fugitive PM_{10} Control

a. All disturbed areas, including Bulk Material storage which is not being actively utilized, shall be effectively stabilized and visible emissions shall be limited to no greater than 20% opacity for dust emissions by using water, chemical stabilizers, dust suppressants, tarps or other suitable material such as vegetative ground cover.

b. All on site and off site unpaved roads will be effectively stabilized and visible emissions shall be limited to no greater than 20% opacity for dust emissions by paving, chemical stabilizers, dust suppressants and/or watering.

c. All unpaved traffic areas one (1) acre or more with 75 or more average vehicle trips per day will be effectively stabilized and visible emission shall be limited to no greater than 20% opacity for dust emissions by paving, chemical stabilizers, dust suppressants and/or watering.

d. The transport of Bulk Materials shall be completely covered unless six inches of freeboard space from the top of the container is maintained with no spillage and loss of Bulk Material. In addition, the cargo compartment of all Haul Trucks is to be cleaned and/or washed at delivery site after removal of Bulk Material.

e. All Track-Out or Carry-Out will be cleaned at the end of each workday or immediately when mud or dirt extends a cumulative distance of 50 linear feet or more onto a paved road within an Urban area.

f. Movement of Bulk Material handling or transfer shall be stabilized prior to handling or at points of transfer with application of sufficient water, chemical stabilizers or by sheltering or enclosing the operation and transfer line.

g. The construction of any new Unpaved Road is prohibited within any area with a population of 500 or more unless the road meets the definition of a Temporary Unpaved Road. Any temporary unpaved road shall be effectively stabilized and visible emissions shall be limited to no greater than 20% opacity for dust emission by paving, chemical stabilizers, dust suppressants and/or watering.

In order to provide a greater degree of PM_{10} reductions, above that required by Regulation VIII, the ICAPCD recommends the following:

Discretionary Mitigation Measures for Fugitive PM_{10} Control

a. Water exposed soil with adequate frequency for continued moist soil.

b. Replace ground cover in disturbed areas as quickly as possible

c. Automatic sprinkler system installed on all soil piles

d. Vehicle speed for all construction vehicles shall not exceed 15 mph on any unpaved surface at the construction site.

e. Develop a trip reduction plan to achieve a 1.5 AVR for construction employees

f. Implement a shuttle service to and from retail services and food establishments during lunch hours

Although the preceding discussion of construction impacts and mitigation measures are primarily focused on PM_{10} emissions from fugitive dust sources, Lead Agencies should also seek to reduce emissions from construction equipment exhaust. Because of the availability of new control devices, required in the manufacturing of PM oxidation catalysts and NOx absorbers, substantial reductions in PM and NOx emissions from diesel engines is achievable. These new retrofit kits and in some cases new original equipment require the use of ultra low sulfur diesel in order to be effective.

Standard Mitigation Measures for Construction Combustion Equipment

a. Use of alternative fueled or catalyst equipped diesel construction equipment, including all off-road and portable diesel powered equipment.

b. Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes as a maximum.

c. Limit, to the extent feasible, the hours of operation of heavy duty equipment and/or the amount of equipment in use

d. Replace fossil fueled equipment with electrically driven equivalents (provided they are not run via a portable generator set)

To help provide a greater degree of reduction of PM emissions from construction combustion equipment the ICAPCD recommends the following enhanced measures.

Enhanced Mitigation Measures for Construction Equipment

a. Curtail construction during periods of high ambient pollutant concentrations; this may include ceasing of construction activity during the peak hour of vehicular traffic on adjacent roadways

b. Implement activity management (e.g. rescheduling activities to reduce short-term impacts)

7.2 Standard Mitigation Measures for Project Operations

These standard air quality mitigation measures have been separated according to land use and mitigation type.

According to Table 1, Tier I, projects generating less than 55 lbs/day of NOx or ROG; less than 150 lbs/day of PM_{10} or SOX; or less than 550 lbs/day of CO than 55 lbs/day, the Initial Study should require implementation of all the Standard Mitigation Measures in order to help mitigate or reduce the air quality impact to a level of insignificance. However, simple implementation of the mitigation measures does not guarantee that the project will be insignificant. The insignificance must be determined by the results of the Initial Study.

According to Table 1, Tier II, projects generating* 55 lbs/day or greater of NOx or ROG; 150 lbs/day or greater of PM_{10} or SOX; or 550 lbs/day or greater of CO, the EIR *or Comprehensive Air Quality Analysis Report should select and implement all feasible and practicable measures from the discretionary list, in addition to the Standard Mitigation Measures.

RESIDENTIAL PROJECTS

Standard mitigation measures for residential projects include the following site design and energy efficiency standards:

Standard Site Design Measures

a. Link cul-de-sacs and dead-end streets to encourage pedestrian and bicycle travel;

b. Allocate easements or land dedications for bikeways and pedestrian walkways;

c. Provide continuous sidewalks separated from the roadway by landscaping and on-street parking. Adequate lighting for sidewalks must be provided, along with crosswalks at intersections;

d. Bicycle storage at apartment complexes or condos without garages.

Standard Energy Efficiency Measures

a. Measures which meet mandatory, prescriptive and/or performance measures as required by Title 24.

COMMERCIAL PROJECTS

Standard mitigation measures for commercial projects include the following site design and energy efficiency standards:

Standard Site Design Measures

a. Provide on-site bicycle lockers and/or racks;

b. Provide on-site eating, refrigeration and food vending facilities to reduce lunchtime trips;

c. Provide shower and locker facilities to encourage employees to bike and/or walk to work;

d. Provide for paving a minimum of 100 feet from the property line for commercial driveways that access County paved roads as per County Standard Commercial Driveway Detail 410B (formerly SW-131A).

Standard Energy Efficiency Measures

a. Measures which meet mandatory, prescriptive and/or performance measures as required by Title 24.

7.3 Discretionary Mitigation Measures

The discretionary mitigation measures listed in this section have been separated according to land use and mitigation type. It is important to note that the measures identified here do not represent a comprehensive list of all mitigation measures possible. Project proponents are encouraged to propose other alternatives that are capable of providing the same level of mitigation.

RESIDENTIAL PROJECTS

Discretionary Site Design Measures

a. If the project is located on an established transit route, improve public transit accessibility by providing transit turnouts with direct pedestrian access to project.

b. For bus service within a ¼ mile of the project provide bus stop improvements such as shelters, route information, benches and lighting.

c. Increase street tree planting.

d. Outdoor electrical outlets to encourage the use of electric appliances and tools.

e. Provide bikeway lanes and/or link new comparable bikeway lanes to already existing lanes.

f. Increase the number of bicycle routes/lanes.

g. Provide pedestrian signalization and signage to improve pedestrian safety.

h. Synchronize traffic lights on streets impacted by development

Discretionary Energy Efficiency Measures

a. Use roof material with a solar reflectance value meeting the EPA/DEO Energy Star® rating to reduce summer cooling needs.

b. Use high efficiency gas or solar water heaters.

c. Use built-in energy efficient appliances.

d. Use double-paned windows.

e. Use low energy street lighting (i.e. sodium).

f. Use energy efficient interior lighting.

g. Use low energy traffic signals (i.e. light emitting diode).

h. Install door sweeps and weather stripping if more efficient doors and windows are not available.

r. Use double-paned windows

s. Use low energy parking lot and street lights

t. Use energy efficient interior lighting

7.4 Off-site Mitigation

Off-site mitigation for Commercial and Residential Developments:

Off-site mitigation measures are designed to offset emissions from residential and commercial projects that cannot be fully mitigated with on-site measures. Typically, off-site reductions can occur as a result from either stationary or mobile sources. For example, NOx emissions from increased vehicle trips from a residential development could be reduced by funding the expansion of existing transit services. Rule 310, Operational Development Schedule Fee has been adopted by the ICAPCD as a sound method for mitigating the emissions produced from the operations of new development projects throughout the County of Imperial. All project proponents have the option of either providing off-site mitigation or paying an Operational Development Fee. The evaluation process in providing this fee is found within the applicability and administrative requirements of Rule 310

Off-site mitigation for Industrial Projects:

Because industrial development projects are by their very nature much more complex, the evaluation of the air impacts resulting from an industrial development is addressed at two levels: that of the environmental review process and that of the ICAPCD permitting review process. The ICAPCD permitting review process addresses mitigation of air emissions from the Stationary source. Therefore, the ICAPCD has adopted the guidance policy #5 to help Lead Agencies and interested parties in the evaluation of off-site mitigation from mobile sources attracted to the stationary sources.