# Attachment 3

# Work Plan

This Work Plan contains summary descriptions of all the projects constituting the *Imperial Integrated Regional Water Management Implementation Grant Proposal,* and the tasks necessary to complete each project in the proposal. The Work Plan demonstrates that the proposal is ready for implementation, and includes a brief description of work to be performed under each item including deliverables for assessing progress and accomplishments. The Work Plan tasks are also consistent with the items identified in the Budget (Attachment 4) and Schedule (Attachment 5) of the Implementation Grant Proposal.

## INTRODUCTION

The Imperial Regional Water Management Group is comprised of Imperial County, Imperial Irrigation District, City of Brawley, City of Calexico, City of El Centro, City of Holtville, City of Imperial, City of Westmorland, and the Calexico New Ricer Committee. The Imperial Region is located in the southeast corner of Imperial County – bordered to the east by the crest of the Chocolate Mountains (which lie west of the Colorado River), to the west by San Diego County, to the north by the Coachella Valley IRWM boundary, the Salton Sea and Riverside County, and to the south by the U.S/Mexico international border. The area, having annual average rainfall of less than three inches a year, relies almost exclusively on imported Colorado River water. The only other water source is a very limited degree of groundwater in areas outside of the Imperial Irrigation District water service area. The region lies entirely within the State's Colorado River Hydrologic Region.

The purpose of the Imperial IRWMP is to define a portfolio of cost-effective water supply management strategies that support economic development and provide a reliable water supply for new municipal, commercial, and industrial (MCI) demands without negatively impacting existing MCI and agricultural water users, or existing agreements and contracts. To meet the Imperial Region's water management the IRWMP is to guide action on resource management strategies and projects to be implemented by participating agencies and stakeholder groups. The three projects listed in this proposal will focus on the water resource management goals that are identified in the Imperial IRWMP. The projects will diversity the regional water supply portfolio to ensure a long term, reliable and sustainable supply for the Imperial region. In addition, during the IRWM planning process for the region, a list of specific implementable projects was developed. Each of the three projects listed in this proposal were included as key projects that are detailed within the adopted Imperial IRWM plan.

### *Goals and Objective:*

The Imperial Integrated Regional Water Management Plan (IRWMP) adopted five key water resource management goals with corresponding objectives that were established to meet these goals. Each of these goals and their objectives are listed in Table 1.

**Table 1: Goals and Objectives of the Imperial Integrated Regional Water Management Plan**

| Goals | Objectives |
|---|---|
| **1. Water Supply:** Diversify the regional water supply portfolio to ensure a long-term, verifiable, reliable, and sustainable supply to meet current and future agricultural, municipal, commercial, industrial, and environmental demands. | 1. Meet 100% of future demands without adverse impact to existing users that are not mitigated. |
| | 2. Implement projects or programs that will provide a firm, verifiable, and sustainable supply of 50 to 100 thousand acre-feet per year (KAFY) for municipal, commercial or industrial demands by 2025 |
| | 3. Ensure equitable and appropriate cost sharing among water users who would receive benefits from any proposed water management project. |
| | 4. Protect surface water rights.<br>A) Optimize and sustain use of Colorado River entitlements through development of groundwater banking and storage projects.<br>B) Optimize and sustain use of Colorado River entitlements through development of groundwater banking and storage projects. |
| | 5. Integrate resources management strategies that diversify the regional water supply portfolio through projects such as desalination of brackish groundwater or drain water, reclaimed waste water, and storm water reuse; or through coordinated land use and water management policies. |
| | 6. Promote economic development that is consistent with existing agreements on use and management of the Colorado River water supply and is consistent with County and Cities general plans and other local ordinances and regulations. |
| | 7. Protect correlative groundwater rights and currently designated sole source aquifers from further overdraft, and optimize the use of other groundwater where feasible. |
| **2. Water Quality Goal:** Protect water quality for beneficial uses consistent with regional community interests and the Colorado River Regional Water Quality Control Board (RWQCB) Basin Plan through cooperation with stakeholders and local and state agencies. | 1. Maintain or improve the quality of incoming Colorado River water. |
| | 2. Support disadvantaged and other communities in meeting wastewater disposal and permit requirements.<br>A) Define local and regional opportunities, evaluate economies of scale and where cost effective, develop capital facilities for wastewater reuse/reclamation.<br>B) Match water quality to appropriate uses and supply treated wastewater to extend use of Colorado River supplies. |

| | |
|---|---|
| | 3. Support disadvantaged and other communities in meeting drinking water standards.<br>A) Define local and regional opportunities, evaluate economies of scale and where cost effective, develop capital facilities. |
| | 4. Comply with Total Maximum Daily Loads (TMDLs) established by the Colorado River Regional Water Quality Control Board (Region 7) for the Imperial Region, and implement established Best Management Practices or other measures to minimize water quality impacts from storm water. |
| | 5. Preserve and, where and when technology allows, improve quality of groundwater resources in Imperial Region. |
| **3. Environmental Protection and Enhancement Goal:** Protect and enhance aquatic ecosystems and wildlife habitat consistent with municipal, commercial, industrial, and agricultural land uses. | 1. Recognize and mitigate impacts to IID drains, small natural floodways, and the New or Alamo rivers that could result from reduced flows as a result of development or reclaimed water use |
| | 2. Investigate and develop regional mitigation banking program to provide cost-effective environmental mitigation for proposed projects that reduce IID drain flow or have other adverse impacts. |
| | 3. Identify opportunities for open spaces, trails, parks and other recreational projects in the Imperial Region that can be incorporated with water supply, water quality or flood protection projects, consistent with public use and property rights. |
| **4. Flood Protection and Storm Water Management Goal:** Protect life and property from flooding and develop regional and local flood protection and storm water management strategies. | 1. Assess regional flood control and local storm water management needs through a collaborative effort to develop policies and cost effective physical solutions.<br>A) Address vector control and safety concerns related to overflow ponds. B) Encourage local agencies to maintain and enforce FEMA floodway and flood plain maps and regulations adopted by Imperial County in 1984 so Imperial Region communities are eligible for federal flood insurance. |
| | 2. Document and define technical and policy approaches for flood and storm water management that can be integrated with other water management actions to meet multiple objectives and provide multiple benefits. |
| | 3. Evaluate and define local and regional projects that prevent or minimize flooding and damage to public and private facilities and property. |

| And a fifth, non-prioritized goal that supports the four prioritized goals: | |
|---|---|
| **5. Develop Regional Policies**<br>**Goal:** Develop regional policies, in accordance with and respecting the individual agencies' jurisdiction and authorities, by engaging the water and land use agencies and other interested parties in a cooperative, regional approach. | 1. Streamline permitting process and integrate land use and water supply planning requirements where appropriate. |
| | 2. Define cost-effective projects and equitable cost sharing agreements with those entities that would receive benefits from proposed water management projects of all types. |
| | 3. Develop consistent policy across all water and land use agencies: Imperial County, Cities, IID, federal lands. |

The three projects listed in this proposal will diversity the regional water supply portfolio to ensure a long term, reliable and sustainable supply. The *City of Holtville Wastewater Treatment Plan Improvement Project* will support the water quality goal listed in the IRWMP by supporting disadvantaged and other communities in meeting wastewater disposal and permit requirements as well as providing this support in a manner that will protect and enhance aquatic ecosystems and wildlife habitat. The *Interconnection Project between the City of El Centro, City of Imperial and Heber Utility District* will provide a reliable water source to the region by promoting an interconnected system that is consisted with regional community interests and will provide system redundancy, promote a community benefit and improve the overall water supply for the region. Finally, the *Drainage Improvements in the Township of Seeley Project* will promote flood protection by assessing regional flood control by implementing a project with strong storm water management strategies.

The objective of this Imperial Region IRWM Implementation Grant Proposal is to present three projects that:

- Further the regional goals and objectives listed in the Imperial IRWM Plan;
- Provide multiple benefits through the integration and coordination of water management strategies; and
- Assist in supporting and enhancing the Imperial Region's critical water supply and water quality needs.

***Purpose and Need:***

The purpose and need of this Implementation grant proposal are intrinsically linked to the goals and objectives of the Imperial IRWMP. During the Imperial IRWMP planning process, a list of specific implementable projects were developed to be included and prioritized within the Imperial IRWMP. All three of the projects included in this proposal are included within the Imperial IRWMP plan. For a full explanation of the purpose and need of each project, and how the purpose and need address the Imperial IRWMP Plan's goals and objectives, please refer to the individual project work plans included in this document.

***Project List:***

The three projects listed in this proposal will meet the will diversity the regional water supply portfolio to ensure a long term, reliable and sustainable supply, and to improve water quality, two critical issues in the Imperial Region. In addition, all three projects will serve and support disadvantaged communities in this region. The below table, Table 2, presents the specific projects included in this proposal. An abstract, current project status and implementing agency is provided for each project.

**Table 2: Specific Projects included in the Proposal**

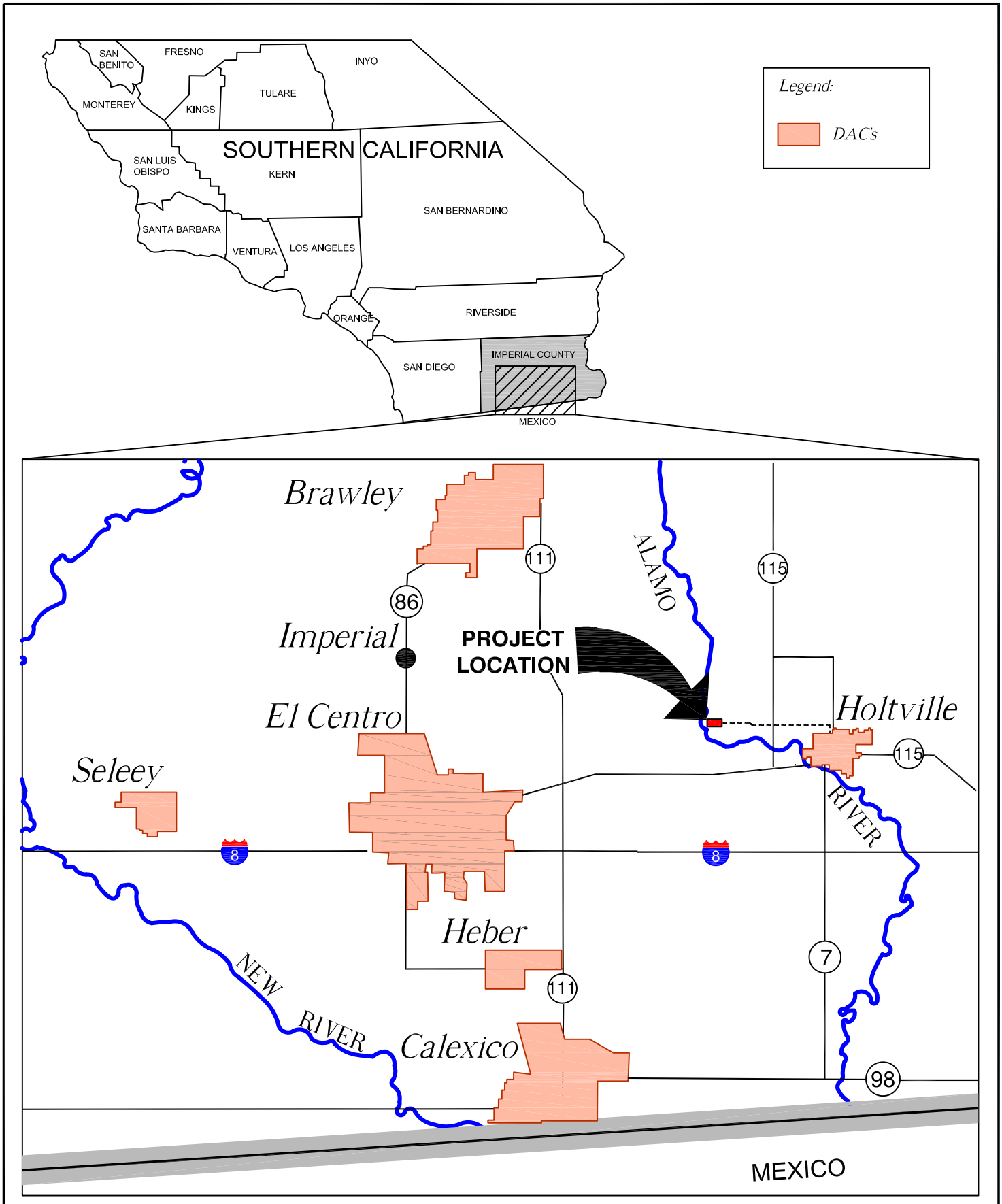
| Project | Description |
|---|---|
| **City of Holtville Wastewater Treatment Plan Improvement Project** | *Abstract:* The City of Holtville's project will make improvements to their Wastewater Treatment Plant (WWTP) to comply with the requirements established by the RWQCB and to ensure that improvements are made with minimal environmental impacts. Dilapidating infrastructure associated with the City's Wastewater Treatment System is a primary economic concern given that the Holtville WWTP is out of compliance with its Regional Water Quality Control Board (RWQCB) NPDES permit and is under a Cease and Desist Board Order that would take an estimated $8 million to address. Equally concerning are the indirect impacts to the environment resulting from the deficient treatment of wastewater. |
| | *Design Completion Status:* Began on January 11, 2012 and is expected to be completed on August 13, 2012 |
| | *Lead Agency:* City of Holtville |
| **Interconnection Project between City of El Centro, City of Imperial and the Heber Utility District** | *Abstract:* The Interconnect project goal is to provide a reliable water source to the region by promoting an interconnected system that provides system redundancy, promotes a community benefit and improves the overall water supply for the region. The interconnect project proposes interconnecting potable water resources between The City of Imperial, The City of El Centro and the Heber Public Utility District |
| | *Design Completion Status:* Will commence once funding is received |
| | *Lead Agency:* City of El Centro |
| **Storm Water Drainage Improvements to the Township of Seeley** | *Abstract:* This project is looking to provide the City with much needed drainage infrastructure. This project will convey rainwater away from the community and will in turn help to prevent the flooding of streets and provide a better and safer public access for vehicles and pedestrians in the community. In addition, as this project utilizes a storm water treatment system to cleanse water as it drains, it will reduce the risk of disease from standing water. |
| | *Design Completion Status:* Preliminary Design has been completed |
| | *Lead Agency*: Imperial County Department of Public Works |

***Integrated Elements of the Projects:***

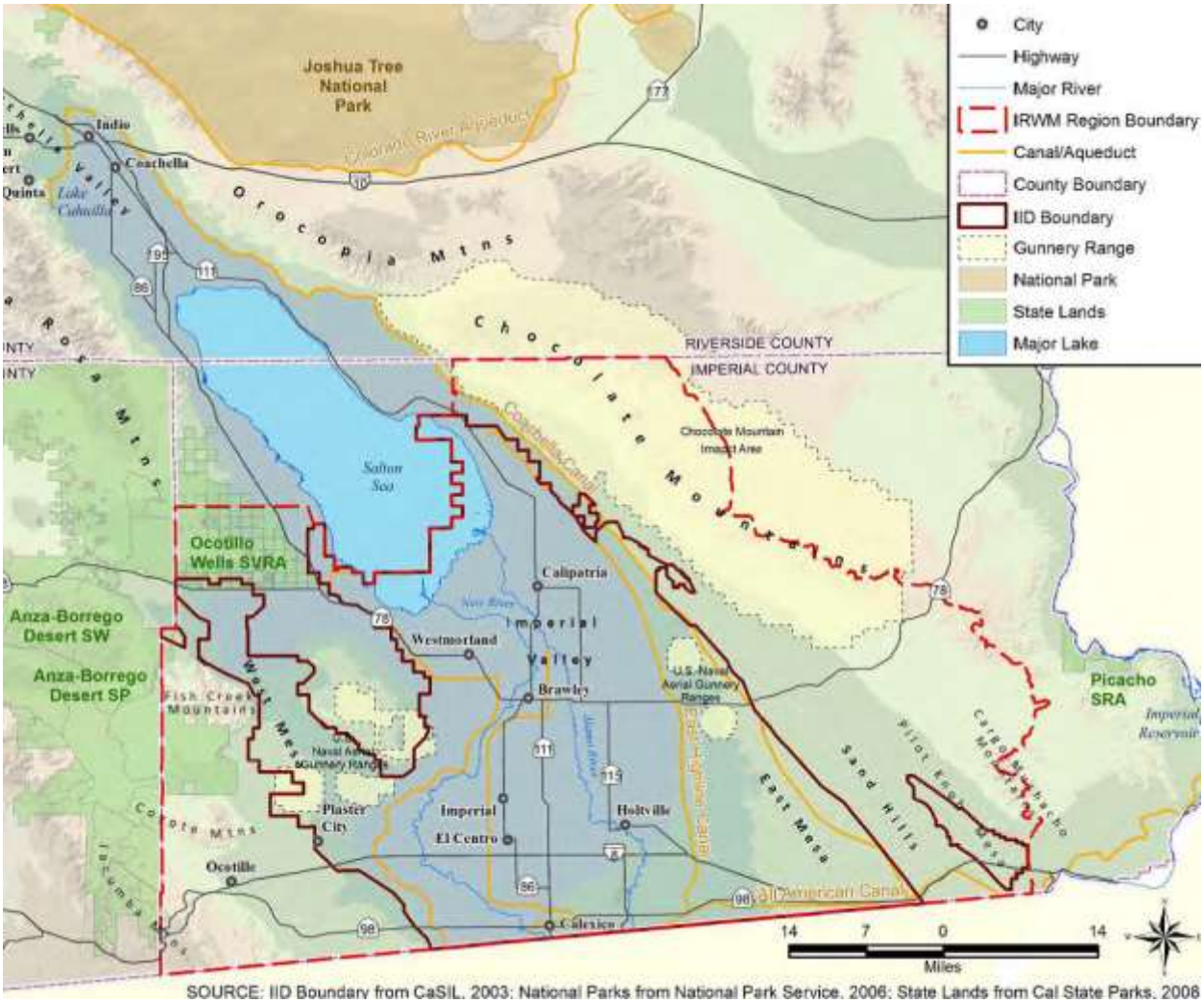
Several of the projects included in this proposal are linked, and the coordinated implementation of each project is critical to the success of the proposal as a whole. The proposal has been crafted to maximize the linkages and integration between the projects within the proposal, and projects included in the proposal have been selected based on their ability to generate multiple benefits.

During the IRWM planning process, the agencies submitted individual projects. During the project review and prioritization process, the agencies recognized the synergies and integrated elements between these projects. All three of the projects included in this proposal will have beneficial regional impacts. The projects will work together in order to help ensure that the region's water supply is diverse, reliable and that water quality is improved.

***Project Map:***




| | | | | |
|---|---|---|---|---|
| The Holt Group<br>ENGINEERING · PLANNING · SURVEYING<br>1601 N. Imperial Aveue El Centro, California 92243 (760) 337-3883 | NOT TO SCALE | City of Holtville Wastewater Treatment Plant Improvement Project<br>**Regional Map & Relation to DAC's** | Attachment 3<br>Exhibit B | PROJECT No. THG 116.344<br>DATE 2-28-2013 |




SOURCE: IID Boundary from CaSIL, 2003; National Parks from National Park Service, 2006; State Lands from Cal State Parks, 2008

***Completed Work:***
Each individual Work Plan provides a description of completed work and future work for the three projects included in the proposal.

***Existing Data and Studies:***
Available data and studies have been collected and reviewed to support the feasibility and technical methods of the projects included within this proposal. Each individual Work Plan provides a description of the data and studies that have been reviewed for each of the three projects included in this proposal.

***Project Map:***
Each individual Work Plan provides a project map that shows the project's geographical location and the surrounding work boundary.

***Project Timing and Phasing:***
Each individual Work Plan provides a description of completed work and future work for each of the three projects included in this proposal.

**WORK PLAN: CITY OF HOLTVILLE WASTEWATER TREATMENT PLAN IMPROVEMENT PROJECT**

***Background:***

The City of Holtville is a small, rural community with an estimated 6,300 residents, located in the southeastern portion of Imperial County, California, and encompasses approximately 1.1 square miles. Although somewhat isolated from the County's main urban corridor along Highway 86, Holtville is located only 8 miles east of the County Seat and main population center (City of El Centro and 10 miles north of Mexicali, Mexico a major metropolitan area. The City of Holtville relies heavily on the agricultural industry and experiences many economic challenges. The Holtville community has a per capita income of $20,749 in comparison to the State's $29,634 (2007-2011 Census).

***Project:***

The existing Wastewater Treatment Plan (WWTP) is a secondary treatment facility and has an average flow capacity of .85 million gallons/day (mgd) serving the Holtville Community and that has long been in need of rehabilitation in order to comply with RWQCB Standards. In this vein the City has set forth the Holtville Wastewater Treatment Plant Improvement Project.

The City of Holtville's project will make improvements to the WWTP to comply with the requirements established by the RWQCB and to ensure that improvements are made with minimal environmental impacts. The City of Holtville project will support the water quality goal listed in the IRWMP by supporting disadvantaged and other communities in meeting wastewater disposal and permit requirements as well as providing this support in a manner that will protect and enhance aquatic ecosystems and wildlife habitat.

***Project Goals and Objectives:***

The projects objectives will make the mandated improvements to the Wastewater Treatment Plant in a timely and cost effective manner, and will do so with minimal adverse impacts to the environmental and the disadvantaged community which it serves. These objectives will effectively minimize impacts to wildlife and the environment. These objectives, which are designed to ensure compliance with the Cease and Desist Order and the NPDES permit issued by the RWQCB and those objectives established under the Integrated Regional Water Management Program.

- **Objective 1 Comply with the Regional Water Quality Control Board's Cease and Desist Order –** The Regional Water Quality Control Board (RWQCB) issued a Cease and Desist Order to the City of Holtville on January 20, 2011 for water violations. Specifically, the City's Wastewater Treatment Plant is unable to comply with the stringent ammonia regulations imposed by the RWQCB. The Cease and Desist Order established a project timeline requiring the City's WWTP to be in compliance with their NPDES permit by August 2014 and to obtain funding for the improvements to the WWTP by June 27, 2012. Although the City has been able to obtain some funding for the improvements, a significant portion

of the funding is from loans. The Holtville community is a disadvantaged community and loans must be paid back by increasing sewer rates. Much of the City's population is heavily dependent on SSI and is on fixed incomes thereby being deeply affected by the rate increases.

- **Objective 2 Comply with the National Pollutant Discharge Elimination System (NPDES) Permit** – On June 21, 2006, the City was issued NPDES Permit No. CA0104361 by the RWQCB by Board Order No. R7-2006-0050. This Permit allows the City of Holtville to discharge effluent into the Pear Drain, a tributary to the Alamo River and tributary to the Salton Sea. According to the 2002 USEPA 303(d) list of impaired waters, all drains in the Imperial Valley and the Alamo River are impaired by silt, sediments, pesticides and selenium. The City's WWTP in its current condition cannot comply with the ammonia requirements which allow for a maximum daily of 3.6 mg/L and discharges the non-complying effluent into the Pear Drain. In order to be able to comply with the NPDES ammonia requirements, the WWTP has to be rehabilitated extensively including the construction of new components. If the City does not comply with the ammonia requirements, there will be fines imposed which the City cannot afford to pay.

- **Objective 3 Improve the Quality of Effluent Discharged –** The effluent discharged by the WWTP is discharged into the Pear Drain, a tributary to the Alamo River which is a tributary to the Salton Sea one of the most polluted bodies of water in the nation. The Pear Drain is also an impaired body of water and is home to the Fathead Minnow. The Fathead Minnow is quite tolerant of turbid, low-oxygenated water, and can be found in muddy ponds and streams that might otherwise be inhospitable to other species of fish. The current effluent discharge is at toxic levels for this species is concerning for other fish and wildlife affected by the Pear Drain water body. Effluent discharged eventually ends up at the Salton Sea which is one of the most diverse avian compositions in the United States as well as a host of endangered and other wildlife species.

The project is consistent with the goals and objectives of the adopted Integrated Regional Water Management Plan.

- ***Water Quality Goal –*** Diversify the regional water supply portfolio to ensure a long-term, verifiable, reliable and sustainable supply to meet current and future agricultural, municipal, commercial, industrial and environment demands.
    - *Objective 2: Support disadvantaged and other communities in meeting wastewater disposal and permit requirements.* The project will contribute to Objective 2 of the Water Quality Goal. The Holtville Wastewater Treatment Plant is in violation of wastewater discharge quality levels for exceeding the effluent ammonia limit and is currently operating under a cease and desist order approved by the Regional Water Quality Control Board (RWQCB). The project if funded will help meet these requirements in a low income community. The City of Holtville is classified as

disadvantaged community. The current sewer rates constitute 1.5% of the MHI. The community is in direct need of grant subsidies.

- ***Environmental Protection and Enhancement Goal –*** Protect and enhance aquatic ecosystems and wildlife habitat consistent with municipal, commercial, industrial, and agricultural land uses.- By making improvements to the Wastewater Treatment Plant, the quality of effluent released back into the environment will be improved thereby reducing the amount of toxins and pollutants into regional water streams. By improving the effluent, the ecosystem of the Salton Sea will improve as the City's effluent is released into the Pear Drain, a tributary of the Alamo River and Salton Sea. Remediation of the non-compliant wastewater effluent discharge quality which exceeds the acute aquatic standards, would no longer impact the Fathead Minnow a species of special concern. The Fathead Minnow is quite tolerant of turbid, low-oxygenated water, and can be found in muddy ponds and streams that might otherwise be inhospitable to other species of fish, including the Alamo River.

***Project Purpose and Need:***

Dilapidating infrastructure associated with the City's Wastewater Treatment System is a primary economic concern given that the Holtville WWTP is out of compliance with its Regional Water Quality Control Board (RWQCB) NPDES permit and is under a Cease and Desist Board Order that would take an estimated $8 million to address. The City's current WWTP is outdated and does not have the capability to treat wastewater to the effectiveness required by the regulations of the RWQCB. The new discharge requirement, specifically the effluent ammonia concentration limit, is the most significant driver of the plant upgrade project. The WWTP failed to meet the final effluent ammonia concentration limits established by the RWQCB and will be unable to comply with these requirements if this project cannot be completed.

Equally concerning are the indirect impacts to the environment resulting from the deficient treatment of wastewater. Holtville is known for the unique history of the Alamo River which traverses the City along the south and originates approximately two miles south of the international U.S./Mexican border and flows northward crossing the City of Holtville before connecting with the Salton Sea and feeding into the Sonny Bono Salton Sea Federal Wildlife Refuge. A diamond in the rough, the Alamo River has gained an undeserved poor reputation of being dirty and polluted, largely because its banks have been the victim of illegal dumping and neglect. The City's WWTP discharges treated water into the Pear Drain which flows into the Alamo River. If the City's project is funded, wastewater will be able to be treated to the compliance standards established by the RWQCB improving the overall quality of effluent discharged.

The City of Holtville is seeking grant funding from the Department of Water Resources as the community is unable to support additional debt service. The community is considered a Disadvantaged Community (DAC), thus, grant resources are being sought to offset some of the financial impacts to residents. At a per capita income of $20,749

the community is not able to afford a significant rate increase and is in need of subsidized funding. The City has sought out a number of grant and subsidized loan resources in an attempt to keep sewer rates affordable within this very low income community. The current sewer rates constitute 1.5% of the median household income (MHI) and sewer rates increases will be needed to service new debt incurred for the new improvements.

***Completed Work To Date:***

The City of Holtville as the implementing agency, in coordination with numerous project stakeholders besides the RWQCB, including State Water Resources Control Board which administers the Clean Water State Revolving Fund, and the Border Environmental Cooperation Commission which administers the Planning and Development Assistance Program, and the US Environmental Protection Agency has put together a comprehensive financing plan.

The steps for this project include:

1. ***Planning and Studies Including Environmental –*** This phase is 100% complete. The project has completed all discretionary approvals and environmental requirements including Preliminary Engineering Report, California Environmental Quality Act (CEQA) documents and Mitigated Negative Declaration (MND) and a Categorical Exclusion under the National Environmental Policy Act (NEPA).

2. ***Development of Financing and Stakeholder Commitment*** – This phase is 50% complete. The City of Holtville has submitted funding applications through the Clean Water State Revolving Fund, and the Border Environmental Cooperation Commission (BECC) for funding under the PDAP and Border Environmental Infrastructure Fund Programs. Commitments for Design Assistance have been received from BECC and a Draft Facility Plan Approval has been received the State Revolving Fund as they have completed their underwriting. A financing plan that is more detailed is located under *Attachment 4.* The DWR Grant would be a critical partner for subsidy purposes under this major project component. This phase is approximately 50% complete because some loan conditions are pending to be cleared. It is anticipated conditions will be cleared by the time the DWR Grant is awarded, since the DWR Grant is anticipated to be a subsidizing grant that will replace part of a loan component.

3. ***Project Design and Permitting*** – This phase is 10% complete. A Conditional Use Permit has already been obtained. The Project Manager**,** Jack Holt has also issued an RFP on behalf of the City of Holtville for professional design services to ensure all design and permitting requirements are properly coordinated and all construction items are addressed. Design services of the plant have been awarded to Lee & Ro, Inc. and it is anticipated to be on a very rigorous schedule where final plans are due to the City by March 27, 2013. As noted, this Design

phase is approximately 10% Complete and is anticipated to be 95% complete by the time the DWR Grant is awarded.

Professional design services will ensure that the design incorporates the following construction components:

- New septage holding tank with aeration system
- Construct truck receiving station and bar screen
- Provide pumps, blowers and air diffusers
- Influent flowmeter
- Construct a packaged headworks system consisting of fine screen and grit chamber
- New Biolac Wave Oxidation Basin with two integral clarifiers
- New air blower building with air blowers for Biolac Wave Oxidation Basin; (viii.) waste activated sludge/scum pump station
- Rehabilitation of second effluent pump station
- Rehabilitation of sludge filtrate pump station
- Addition of Proper Laboratory Building
- Upgraded electrical
- Emergency Back-up Generator
- Sludge thickening process and drying

4. ***Project Construction and Management*** – This phase is 0% complete. No work has been completed under the construction phase. However, it is important to note that no other discretionary permits or approvals are pending and that the project will be able to be put out to bid as soon as the design services are complete.

***Existing Data and Studies:***

Numerous planning and evaluation studies have been completed.

- A Preliminary Engineering Report was completed on September 2011. The Engineering Report analyzed various alternatives and concluded that the Biolac® WaveOx system was the best alternative. The Preliminary Engineering Report was forwarded to project stakeholders and partners for review and acceptance.

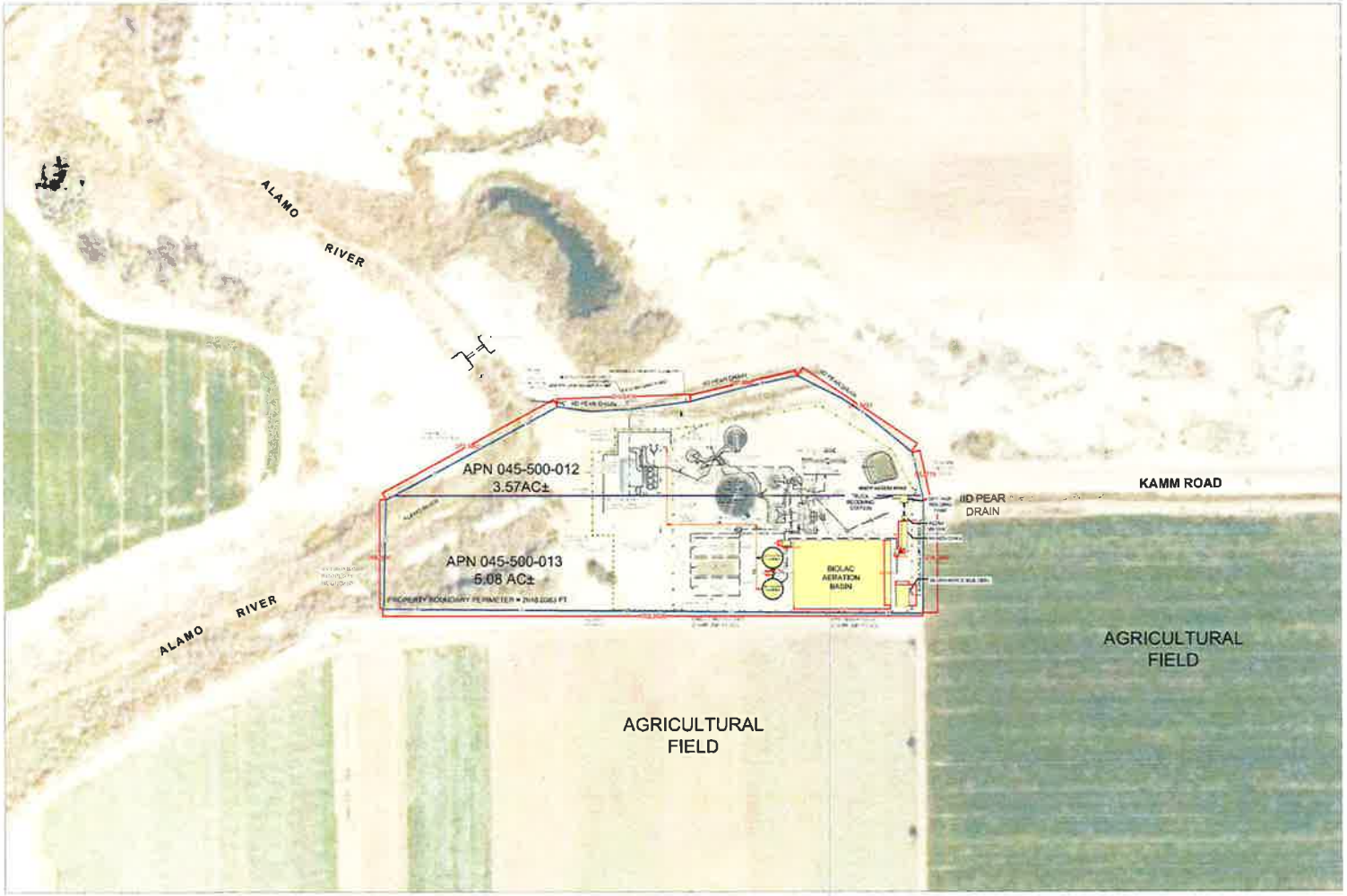
- Environmental review and a Notice of Exemption in compliance with the California Environmental Quality Act (CEQA) was completed and filed on November 29, 2010 by the City of Holtville for rehabilitation work.

- A Conditional Use Permit and Mitigated Negative Declaration (MND) was filed on October 15, 2012 by the County of Imperial.

- A Categorical Exclusion under the National Environmental Policy Act (NEPA) was also recorded on January 4, 2013 by the US Environmental Protection Agency.

***Project Map:***

All of the proposed improvements are to be located at 1250 Kamm Road in Holtville California within an unincorporated area of Imperial County. Please find below a map identifying the site improvements and surroundings.




**APN:045-500-012**

**PROPERTY OWNER**
CITY OF HOLTVILLE

**LEGAL DESCRIPTION**
POR LOT 20 SECTION 21 15-15

**EXISTING PARCEL ACREAGE**
GROSS/NET AREA: 3.57 ACRES

**RIGHT OF WAY**
(1) OVER LOTS 20 AND 21 IN SECTION 21, TOWNSHIP 15 SOUTH RANGE 15 EAST, S.B.M. WITH THE RIGHT IN INGRESS AND EGRESS FOR THE PURPOSE OF INSTALLING AND MAINTAINING A FIFTEEN-INCH OUTFALL SEWER LINE, FOR SAID CITY OF HOLTVILLE, SAID SEWER LINE TO BE INSTALLED AND MAINTAINED ON A LINE RUNNING PARALLEL TO AND 40 FEET MORE OR LESS DISTANT FROM CENTER LINE OF THE PEAR CANAL AS NOW LOCATED.

**APN:045-500-013**

**PROPERTY OWNER**
CITY OF HOLTVILLE

**LEGAL DESCRIPTION**
S 213.8 FT M/L OF LOT 20 SEC 21 T15S R15E

**EXISTING PARCEL ACREAGE**
GROSS/NET AREA: 5.08 ACRES

**EASEMENT:**
A DRAIN PIPE OVER A STRIP OF LAND 50 FEET OF IN WIDTH, BEING THE SOUTH 50 FEET OF LOT 22, SAID SECTION 21, LYING NORTH OF THE NORTH LINE OF THE WEST 40 ACRES OF TRACT 82, AND EXTENDING WESTERLY TO THE ALAMO RIVER, ALL IN SAID TOWNSHIP AND RANGE.

LEGEND

NEW FACILITY

SLUDGE LINE

**ABBREVIATIONS**

| | |
|---|---|
| A | AIR |
| AB | AIR BLOWER |
| B | BYPASS |
| CBE | CONTINUOUS BACKWASH EFFLUENT |
| DR | DRAIN |
| DS | DIGESTED SLUDGE |
| DB | DISTRIBUTION BOX |
| ML | MIXED LIQUOR |
| | PUMP STATION |
| PE | PLANT EFFLUENT |
| PW | NON-POTABLE PLANT WATER |
| PCE | PRIMARY CLARIFIER EFFLUENT |
| PCI | PRIMARY CLARIFIER INFLUENT |
| PCM | PRIMARY CLARIFIER SCUM |
| PCS | PRIMARY CLARIFIER SLUDGE |
| PI | RAW SEWAGE PLANT INFLUENT |
| R | REJECT |
| RAS | RETURN ACTIVATED SLUDGE |
| S | SUPERNATANT |
| SE | SECONDARY EFFLUENT |
| SF | SLUDGE FILTRATE |
| SCE | SECONDARY CLARIFIER EFFLUENT |
| SCM | SECONDARY CLARIFIER SCUM |
| SCS | SECONDARY CLARIFIER SLUDGE |
| TFE | TRICKLING FILTER EFFLUENT |
| WAS | WASTE ACTIVATED SLUDGE |

The Holt Group, Inc.
ENGINEERING PLANNING SURVEYING
1601 NORTH IMPERIAL AVENUE EL CENTRO, CALIFORNIA 92243
760-337-3883

SCALE 1" = 200'
CREATED BY: EG

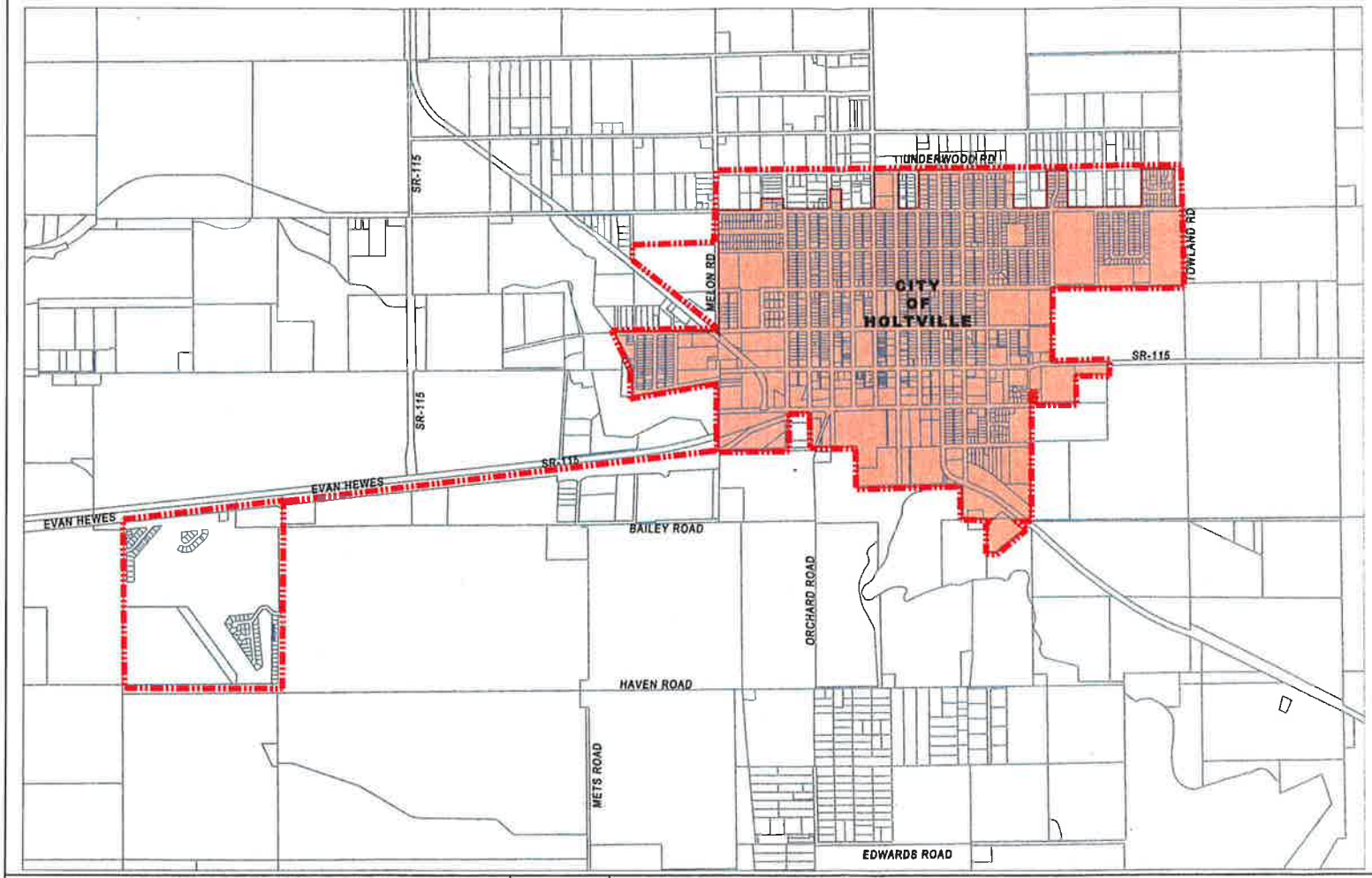
# City of Holtville Wastewater Treatment Plant Improvement Project

## PROJECT MAP

Attachment 3
Exhibit C

PROJECT NO
THG 116.344P

DATE:
02-28-2013

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(760) 337-3883

NOT TO SCALE

# City of Holtville Wastewater Treatment Plant Improvement Project

## PROJECT SERVICE AREA MAP

Attachment 10
Exhibit A

THG PROJECT No.116.344 | DATE: 02-28-2013

***Project Timing and Phasing:***
As previously noted the project consists of four primary phases. For a detailed project schedule please refer to *Attachment 5.*

1. **Phase 1** – **Planning and Studies Including Environmental** began on December 13, 2010 and ended on January 4, 2013 and consisted of the following:
   - Preliminary Engineering Report was completed by Lee & Ro and adopted by City Council on September 2011
   - Mitigated Negative Declaration- Notice of Determination filed by Imperial County on October 15, 2012
   - Categorical Exclusion was completed by US Environmental Protection Agency on January 4, 2013

2. **Phase 2 – Development of Financing and Stakeholder Commitment** began on June 29, 2011 and is expected to end on August 2013 and consists of the following:
   - BECC Awarded under Project Development Assistance Program 50% of Design Costs- Awarded May 11, 2012
   - State Water Resource Control Board under Clean Water State Revolving Fund Program issued Draft Financing Commitment on January 2013, and final Financing Commitment is anticipated for March 2013
   - Loan Conditions through SWRCB SRF Program are expected to be cleared by July 2013
   - Department of Water Resources is expected to notify applicants of Round 2 of award on August 2013.

3. **Phase 3 – Project Design and Permitting** began on January 11, 2012 and is expected to end on August 2013 and consists of the following:
   - Lot Merger through Imperial County was approved on October 2, 2012
   - Approval of Conditional Use Permit through Imperial County for WWTP land use- issued on October 30, 2012
   - Request for Proposals for Design Services began in December 2012 and contract was awarded to Lee and Ro, Inc- March 27, 2013
   - First submittal of 30% Complete Plans are anticipated to be completed by April 2013
   - Lee & Ro Inc is anticipated to complete design, plans and specifications on August 2013.
   - A building permit through Imperial County is expected to be obtained by September 2013.

4. **Phase 4 – Project Construction and Management** is expected to begin on September 2013 and end on January 2015 and consists of the following:
   - Advertising and Bidding of the WWTP Improvement Project is expected to begin on September 2013.

- Award of Construction Contract and Documentation including pre-bid conference is anticipated to be completed by October 2013.
- Construction is anticipated to begin by January 2014 and a Notice of Completion is anticipated to be filed by January 2015.

## PROPOSED WORK

Of the four project phases, Phase 1 through Phase 3 will have been substantially completed by the time the DWR Grant Funds are awarded in August 2013. The proposed work to be funded by the DWR is under the final Phase 4 which consists of construction activities in land owned by the City of Holtville where no additional easement or right of ways would be necessary. There are eleven (11) major tasks throughout the four phases to be completed for the City of Holtville's Wastewater Treatment Plant Improvement Project. A discussion of these major tasks appears below for a detailed description of subtasks and deliverables please refer to *Work Plan Exhibit A.*

***Administration:***

**Task 1: General Administration** – Administration involves applying and securing funding, clearing any loan conditions, and administration of funds involving completion of reports, preparation of fund draws, and monitoring the account balance. This task would be completed in coordination with all stakeholders and funding agencies.

**Deliverables:** Successful contract and successful grant.

**Task 2: Labor Compliance Program** – This task involves the establishment of a Labor Compliance Program. The City of Holtville has a retainer contract with The Holt Group Inc. whom has an established third party Labor Compliance Program which would be available to the City for adoption in order to meet this requirement. Additional labor compliance monitoring and reporting services are available through the firm and would include administering Federal and State prevailing wage requirements, including labor standards, enforcement of wage decisions, and payroll certifications.

**Deliverables:** An approved labor compliance program via in-house or through a hired consultant.

**Task 3: Reporting** – Reporting of the project would be completed at the local and State levels include all stakeholders. The project would involve submission of reports to the Holtville City Council, and the submission of Quarterly Progress Reports, Final Reports and Post Completion Reports to partner agencies.

**Deliverables:** Project reports to the City Council and Quarterly/Final/Post Reports to partner Agencies

***Planning/Design/Engineering/Environmental Documentation:***

**Task 4: Project Assessment and Evaluation** – The proposed improvements to the WWTP have been thoroughly accessed via the completion of a Preliminary Engineering Report (PER). Additionally, the Border Environmental Cooperation Commission, a funding partner, completed an independent Project Assessment. City Council has accepted the assessment and no further project assessments are pending.

**Task 5: Project Design** – Plans, Specifications, and drawings consistent with the adopted PER are a project component. The City issued a Request for Proposals for Design in December 2012 and awarded the Design contract to Lee and Ro, Inc. The firm has begun the design work for the proposed improvements.

**Deliverables:** Final design plans, specifications, and drawings approved by all stakeholders.

**Task 6: Environmental Documentation** – The proposed project requires completion of CEQA and NEPA related documents. Although a Mitigated Negative Declaration was completed in conformance with CEQA for the proposed land use under a Conditional Use Permit, the rehabilitation project is exempt from CEQA and a Categorical Exclusion in conformance with NEPA was also filed by the US EPA.

**Deliverables:** Approved CEQA and NEPA documents.

**Task 7: Permitting** – Various permits are required for the proposed project inclusive of the following: Lot Merger through Imperial County, Conditional Use Permit (CUP) from Imperial County, and Building Permit from Imperial. The Lot Merger and CUP have been cleared and issued through Imperial County. Once plans and specifications are completed, a building permit will be applied for.

**Deliverables:** Approved building permit

***Construction Implementation:***

**Task 8: Construction Contracting** – A construction company would need to be procured to complete the improvements to the WWTP per the approved plans. This task will be completed after the design of the WWTP is completed.

**Deliverables:** Approved contract with construction company

**Task 9: Construction** – The proposed project would involve the construction of the following: Truck receiving station with bar screen, installation of pump, blowers, and air diffusers influent flowmeter, construction of a packaged headworks system consisting of fine screen and grit chamber, new Biolac wave oxidation basin with two integral clarifiers, new air blower building with air blowers for Biolac wave oxidation basin, waste activated sludge/scum pump station , rehabilitation of secondary effluent pump station, rehabilitation of sludge filtrate pump station, addition of proper

laboratory building, upgrade of electrical and instrumentation system, emergency back-up generator, sludge thickening process and drying, sludge containment structure.

***Environmental Compliance/Mitigation/Enhancement:***

**Task 10: Environmental Compliance/Mitigation** – The conditional use permit issued by Imperial County was done under a Mitigated Negative Declaration therefore project conditions of approval and mitigation measures issued will need to be strictly followed. The following are the listed mitigation measures: 1) construction of sludge containment area, 2) construction of an engineered solid wall along the east side and south side of the drying bed and dry material storage areas. All project conditions and mitigation measures are required to be included in the project specifications.

***Construction Administration:***

**Task 11: Construction Administration** – The City of Holtville has retained engineering services with The Holt Group and it is anticipated that all construction management activities will be carried out under the existing contract. The City Engineer/Project Manager is expected to carry out the Construction Manager responsibilities. The Construction Manager shall review submittals, hold weekly project meetings, coordinate with all project stakeholders, coordinate change orders and maintain all project records. This task will be initiated upon commencement of the construction contract.

**WORK PLAN: INTERCONNECTION PROJECT BETWEEN CITY OF EL CENTRO, CITY OF IMPERIAL AND THE HEBER UTILITY DISTRICT**

***Project:***

The interconnect project proposes interconnecting potable water resources between The City of Imperial, The City of El Centro and the Heber Public Utility District. The interconnection consists of connecting existing 12" water mains at one extremity of a water system to the nearest extremity of the adjacent system.

The City of El Centro would interconnect with the City of Imperial at two locations. The first interconnection is along La Brucherie Avenue between Cruickshank and Wall Rd for a distance of 2,100 linear feet. The second location is along 8th Street (Clark Rd) between Cruickshank and Aten Rd. for a distance of 2,850 lineal feet.

Interconnection between the City of El Centro and Heber Utility District would also occur at two locations. The first south of Legacy Drive between 3rd Street and McCabe Cove for a distance of approximately 320 lineal feet. The second location is along Dogwood Avenue between Danenberg Drive and Black Hills Road for a distance of approximately 4,035 lineal feet. All connections would require water valves and bidirectional water meters to control and measure distribution between adjacent agencies. All work is proposed within existing right of way and easements.

All interconnection pipelines will be installed within existing right-of-ways of the respective jurisdictions and the County of Imperial. Encroachment permits will be required to cross railroad rights-of-way and through Imperial Irrigation District easements.

This project will support the Imperial IRWM by providing a reliable water source to the region by promoting an interconnected system that provides system redundancy, promotes a community benefit and improves the overall water supply for the region.

***Project Goals and Objectives:***

The benefiting agencies seek to improve the reliability of the existing water distribution systems by taking advantage to their proximity to each other. The proximity of the systems lends itself to the interconnection of the systems which would mitigate system risks by improving reliability and promoting public safety. The project would provide reliability, public safety, promote mutual aid, provide system redundancy and improve drought response. The interconnection services would occur at four connection points, with two connection points per agency.

- **Water Supply Goal** – Diversify the regional water supply portfolio to ensure a long-term, verifiable, reliable and sustainable supply to meet current and future agricultural, municipal, commercial, industrial, and environment demands.
    - *Objective:* This project will integrate resource management strategies to diversity the regional water supply portfolio through the creation of an interconnected system that will provide an enhanced reliable source of

water. The purpose of the project is to create redundancy and improve safety within the affected jurisdictions. Each agency has built redundancy within their systems; however there is no redundancy in water source. Should a water treatment plant in one agency malfunction, there is no way to import water from an adjacent water agency.

***Project Purpose and Need:***

The project proposes interconnecting potable water resources between The City of Imperial, The City of El Centro and the Heber Utility District. The interconnection consists of connecting existing 12" water mains at one extremity of a water system to the nearest extremity of the adjacent system.

The City of El Centro would interconnect with the City of Imperial at two locations. The first interconnection is located along La Brucherie Avenue between Cruickshank and Wall Rd for a distance of 2,100 linear feet. The second location is along 8th Street (Clark Rd) between Cruickshank and Aten Rd. for a distance of 2,850 lineal feet.

Interconnection between the City of El Centro and Heber Utility District would also occur at two locations. The first south of Legacy Drive between 3rd Street and McCabe Cove for a distance of approximately 320 lineal feet. The second location is along Dogwood Avenue between Danenberg Drive and Black Hills Road for a distance of approximately 4,035 lineal feet. All connections would require water valves and bidirectional water meters to control and measure distribution between adjacent agencies. All work is proposed within existing right of way and easements.

All interconnection pipelines will be installed within existing right-of-ways of the respective jurisdictions and the County of Imperial. Encroachment permits will be required to cross railroad rights-of-way and through Imperial Irrigation District easements.

The proposed project benefiting agencies seek to improve the reliability of the existing water distribution systems in the City of Imperial, the City of El Centro and the Heber Public Utility District by taking advantage to their proximity to each other. The proximity of the systems lends itself to the interconnection of the systems which would mitigate system risks by improving reliability and promoting public safety. The project would provide reliability, public safety, promote mutual aid, provide system redundancy and improve drought response. The interconnection services would occur at four connection points, with two connection points per agency.

The purpose of the interconnect project is to create a streamlined approach and improve safety within the affected jurisdictions. This project is currently listed in the integrated regional water management plan and will provide a benefit to the region. Currently there is little to no redundancy of potable water systems. Each agency has built redundancy within their systems; however there is no consistency in water source. Should a water treatment plant in one agency malfunction, there is no way to import

water from an adjacent water agency. This project is needed in order to create this system and to provide a safe and reliable water source for the region.

Previously in 2012, there was a close call when the Heber Public Utility District had the water treatment plant not producing potable water for a short time period. The time implications of the emergency were not readily available and HPUD and City of El Centro were looking at an option to interconnect in a temporary emergency manner. Thankfully, HPUD was able to bring the plant back online before water ran out and the emergency was averted. In addition, in 2010, the region had a massive 7.2 earthquake that demonstrated the need for a reliable water source to be created for the region. After the earthquake, many of the water plants suffered a range of damage. The City of El Centro had the roof of one 2.5 MG potable water tank ripped open which resulted in severe damage, the tank being out of operation, and the main power plant suffering damage. Luckily, the City had just completed a new water plant that they were able to get in operation to in order to continue to provide water and the main storage tanks were spared by the earthquake. While we have been able to divert a real disaster during these emergency situations, it is clear that the proposed interconnect project is needed in order to reduce the risk of power outages and low fire flow pressures

## HEBER PUBLIC UTILITY DISTRICT:

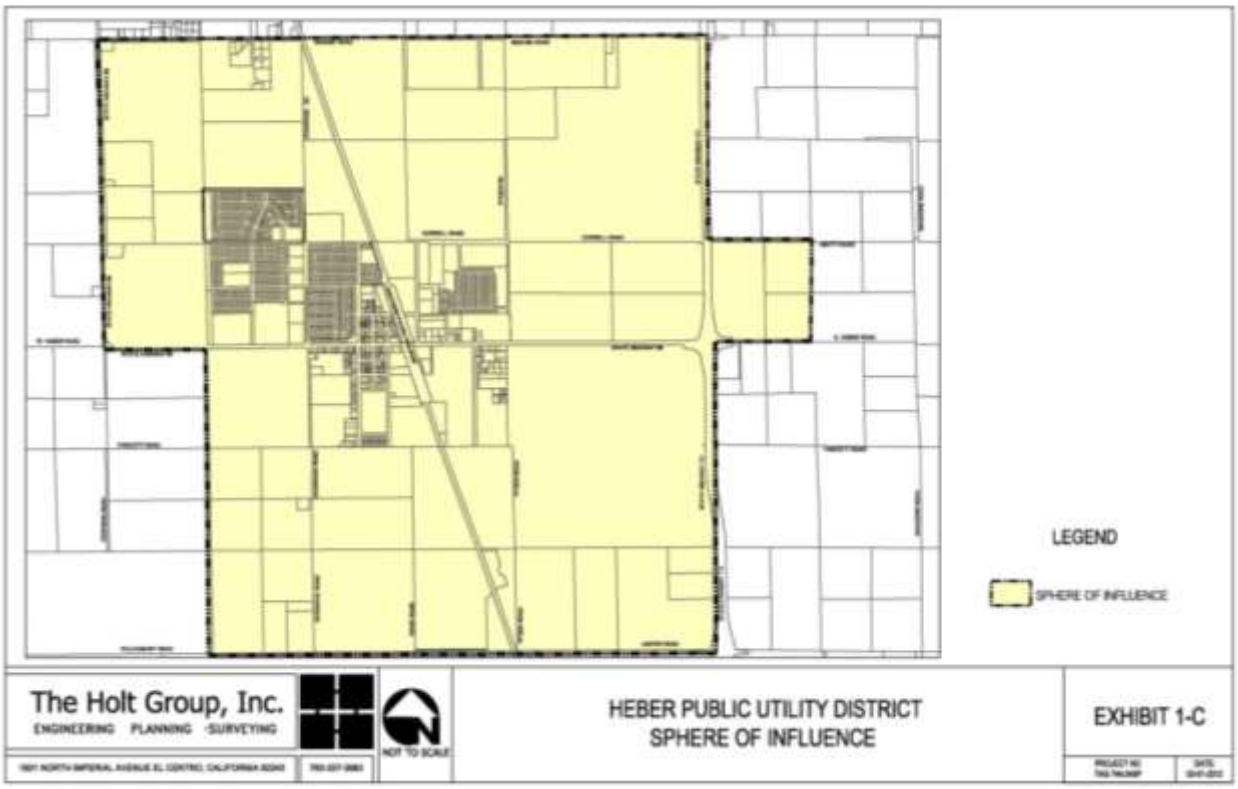
The Heber Public Utility District was formed in 1931 under the Public Utility Act of 1921 for the specific purpose of providing wastewater and water services to the Heber Community. Heber is an unincorporated community within Imperial County and is uniquely situated between the two most populated cities within Imperial County, El Centro and Calexico. Heber is immediately south, and within 2 miles of the City of El Centro and the Imperial Valley Mall.

### *Population/Demographics:*

Heber is a sparsely populated unincorporated community with a population of 7,334 according to the 2010 Census using Heber's zip code as reference. Heber is part of the El Centro Metropolitan Statistical Area which has a much larger population base and as such is influenced by regional growth. Over the last two decades Heber has experienced significant growth and development. From 1990 to 2010, the Heber population grew from 2,556 to 7,334, and the service area grew by approximately 135 percent. Heber has a per capita income of $15,764 and qualifies as a disadvantaged community. Over 96 percent of the population is Hispanic and the median age is 29.7. *Reference US Census by Zip Code 92249*

### *The Heber Public Utility District (HPUD) Service Area:*

Heber's developed area covers an approximate 1.63 square miles, but the Sphere of Influence is a much broader area intended to accommodate future growth. Please reference *Exhibit 1-C Sphere of Influence from Service Area Plan*



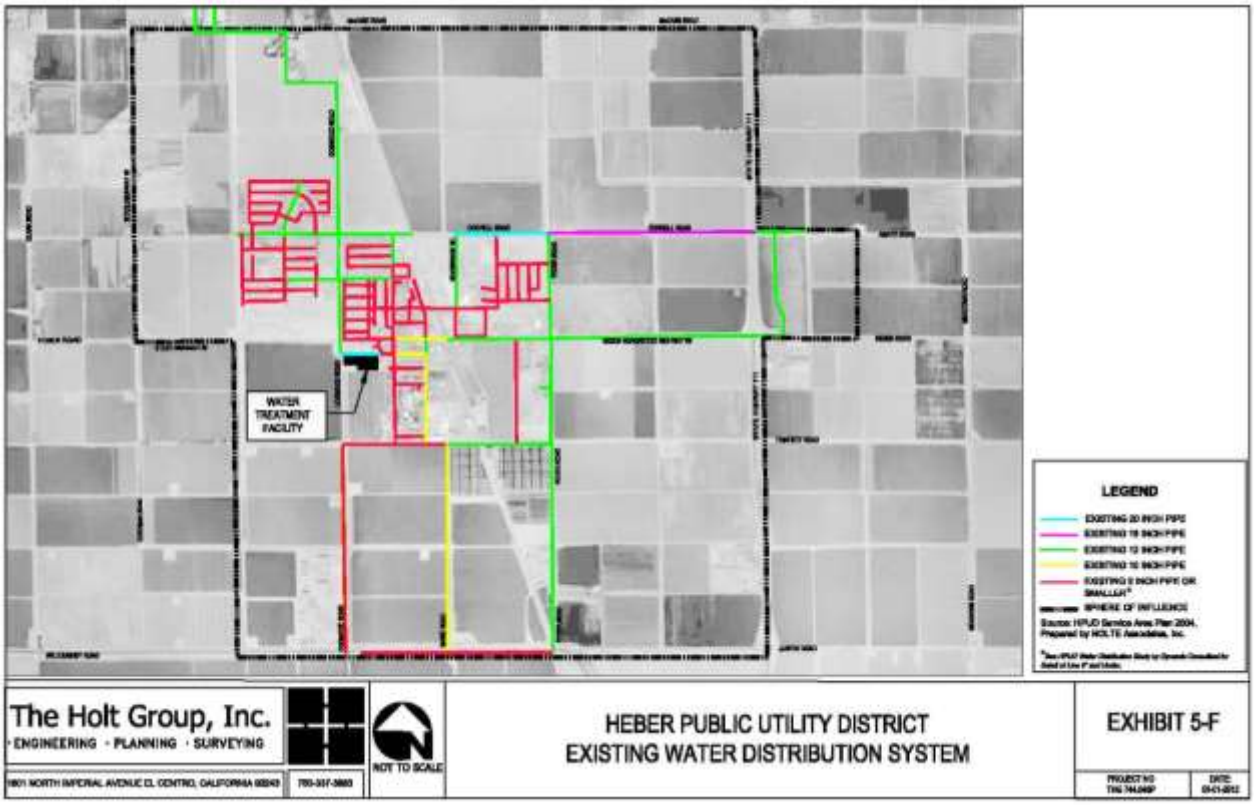

***The Heber Public Utility District Water Facilities:***

The District owns, operates and maintains a system for the treatment, distribution and storage of potable water resources that serves approximately 1,576 water service connections for residences, businesses, and public facilities within the District and the District's Sphere of Influence. The District purchases all of its untreated water from the Imperial Irrigation District, which is conveyed to HPUD facilities via the Dogwood Canal.

The District's water treatment system capacity is 2.0 million gallons per day. The District's average daily demand is 2.246 million gallons per day, which exceeds the plant's capacity. Thus, the water treatment plant is considered "under capacity" and the HPUD is exploring options for funding an expansion project. The finish water storage is maintained by three reservoirs that provide 5.45 million gallons of storage capacity. The potable water distribution system consists of approximately 135,000 linear feet (25.5 miles) of pipeline.

The District does not share water treatment, storage, or distribution facilities with other Districts of jurisdictions. The El Centro Water Treatment Plant is located at an approximate five miles from the Heber Public Utility District's Service Area. The nearest water connection with the City of El Centro is approximately 300 feet in the McCabe Cover Subdivision.

***Exhibit 5-F Existing Water Distribution System from Service Area Plan:***




**CITY OF EL CENTRO:**

***El Centro City Demographics:***

The City of El Centro is a Metropolitan Statistic Area in a large rural community located along Interstate 8 in the County of Imperial, about 128 miles east of San Diego, 245 miles west of Phoenix, Arizona, and just 10 miles north of the Mexico border. El Centro is accessible via State Highways 86 and 111, and Interstate 8. El Centro is the largest city in Imperial County and serves as the County Seat. It has a population of approximately 42,071 people, per the State of California, Department of Finance (2008). The City's service area is approximately 6,850 acres or 11 square miles. The City of El Centro is in an Economically Distressed Area

***El Centro Population***

- US Census 2007 and the Southern California Association of Governments (2008)
- Year 2010 – 45,003
- Year 2025 – 63,061

***El Centro Age Distribution:***

- US Census 2000
    - 33.6% under 18 years old;
    - 9.7% from 18-24;

- 28.9% from 25-44;
- 18.5% from 45 to 64;
- 9.3% over 65.

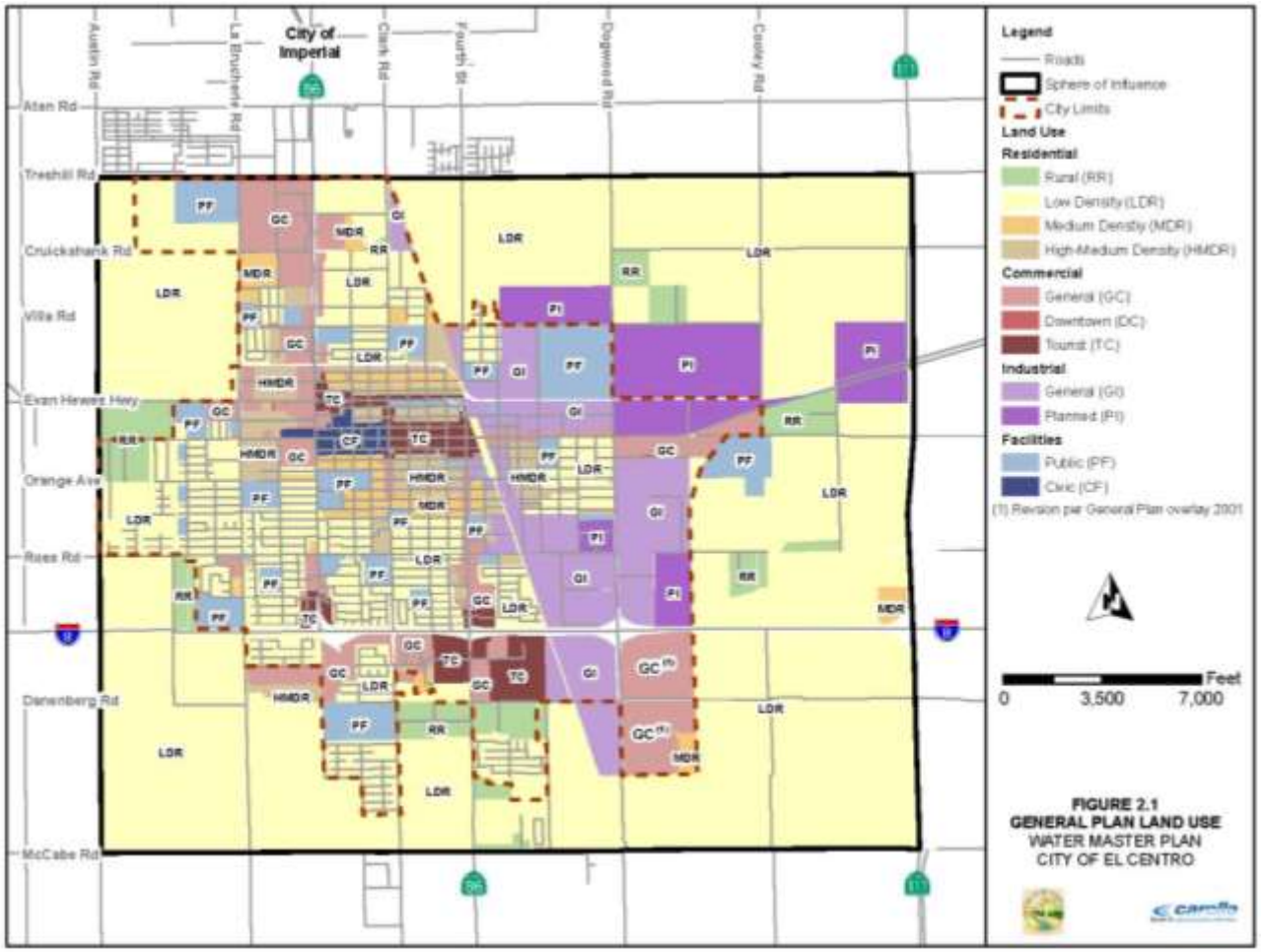
***El Centro Income:***

- City of El Centro median income is **$33,161**
- State median income is **$47,493**

***El Centro Unemployment Rate - Bureau of Labor Statistics:***

- 27.6% (June 2010)

The El Centro Sphere of Influence includes areas that are currently under the jurisdiction of Imperial County but are anticipated to be incorporated in the City sometime in the future. The total area of the SOI outside the City boundary is approximately 16,000 acres or 25 square miles.



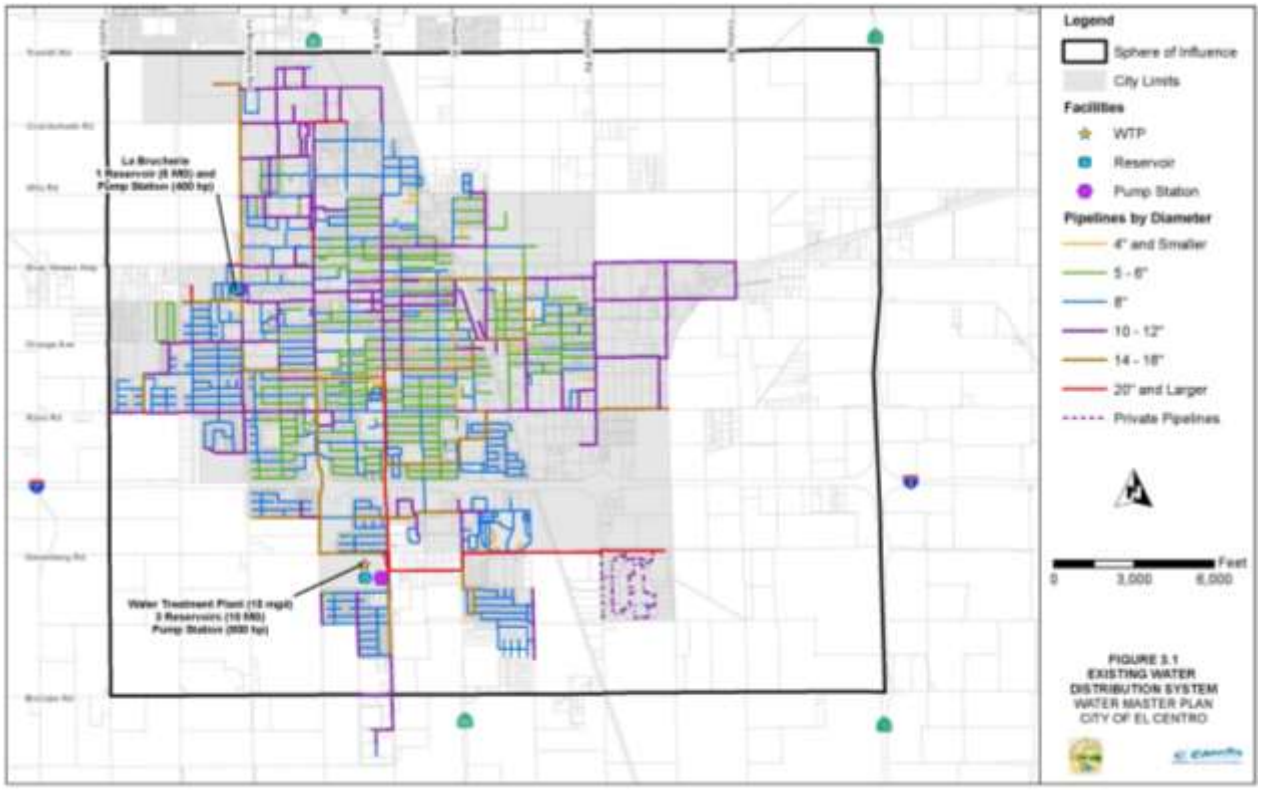

LAND USE MAP

***El Centro System Description:***

The City currently has four treated water storage reservoirs, two booster pumping stations and approximately 148 miles of pipeline. The City serves water to about 9,200 connections with an average day demand (ADD) of approximately 8.6 mgd.

The water supplied from the IID is directed to the City's treatment plant. The plant is a conventional pretreatment-filtration plant. The pretreatment consists of ferrous sulfate and polymer addition to flocculating clarifiers. There are three gravity filters. Disinfection is accomplished with the addition of chlorine followed by contact time in the three on-site storage reservoirs. The treatment plant has a normal flow pattern for the raw water storage ponds. Water is pumped into the south pond and then flows by gravity through the north pond and to the clarifiers. This configuration utilizes the largest pipes and has adequate retention time for sedimentation of silt carried in the raw water [5]. The available capacity of the plant is 21 mgd. Water from the three on-site tanks (totaling 10 MG of storage) feeds the system via the WTP booster pumping station and represents the primary water supply for the El Centro system.

The City's water system has no inter connections with neighboring cities or water utilities.



***El Centro Storage Facilities:***

Due to the minor variation in ground elevations, the system does not have any gravity reservoirs and no elevated tanks in service. Thus, all system storage is ground storage, which must be used in combination with booster pumps. The system has two primary locations with storage. The first location is at the WTP near the southern end of the City's service area. The City has two raw water ponds and three treated water tanks at the WTP site. This site has about 52 million gallons (MG) of raw water storage that is used to buffer imported water supply and provide supply reliability in case of an interruption of imported water supply. In addition, this site accommodates 10 MG of treated storage at the WTP that provides suction supply to the four booster pumps, which provide the primary water supply for the City's distribution system.

The system also has one remote ground storage location in the northwest portion of the City's distribution system near the intersection of La Brucherie Road and Barbara Worth Drive. This facility can provide additional water supply to the system during peak demands by use of the La Brucherie booster pump station. This facility is used primarily during peak demand periods and has approximately 5 MG of storage.

***El Centro Supplies***

The City cannot use its local groundwater due to the high total dissolved solids (TDS) concentration. Therefore, all water is supplied from the Colorado River via the All American Canal and facilities of the Imperial Irrigation District (IID). Water is pumped from the canal into the City's raw water storage ponds, with a combined capacity of 52.5 MG. This storage provides the City more than 6 days of storage under existing ADD conditions. This raw imported surface water is treated at the City's WTP before it enters the distribution system.

The City has sufficient water supplies through the deliveries of Imperial Irrigation District (IID), which supplies are governed in the Colorado River Water Delivery Agreement of October 2003.

***El Centro Emergency Storage:***

Storage is also required to meet system demands during emergencies. Emergencies cover a wide range of rare but probable events, such as water contamination, failure at the water treatment plant (WTP), power outages, transmission pipeline ruptures, several simultaneous fires, and earthquakes. The volume of water that is needed during an emergency is usually based on the estimated amount of time expected to elapse before the disruptions caused by the emergency are corrected. The occurrence and magnitude of emergencies is difficult to predict and therefore, the emergency storage is typically set as a percentage of average day demand (ADD) or MDD. However, this percentage needs to be based on water system layout and the available supply facilities. Water systems that have only one source of supply, such as the City, are more vulnerable in emergencies than water systems with a large number of groundwater wells that are located throughout the distribution system.

Based on values used for similar water systems having only one source supply, the appropriate emergency storage criterion for the City is determined to be 100 percent of MDD, which would provide enough storage for nearly two days under ADD conditions. Thus, during a power outage at the WTP due to an earthquake, fire, or other emergency, the City should be able to supply two typical days of demand. During summertime, when the demand is higher, the City can issue water conservation notices to reduce the City's water demand and extend the available water supply period.

***Earthquake Destroying the El Centro WTP Site:***

The only available supply after an earthquake that damages the facilities at the WTP site is the storage at the La Brucherie tank. The available supply in storage is 3.5 MG, which is less than the available pumping capacity (8,000 gpm or 11.5 mgd). Thus, the storage volume governs. The total supply deficit accumulated over 14 days is 81 MG.

The City's water system is vulnerable to extreme emergencies such as earthquakes due to its single source of supply and additional remote storage is cost prohibitive to address this deficiency. The use of raw water with boil-water-notices would also apply to the earthquake scenario. If the raw water inlet structure would be destroyed, the City could construct temporary above ground pipelines to other IID canals to continue its water supply service.

## CITY OF IMPERIAL:

***Demographics:***

The City of Imperial is a predominantly agricultural City situated 13 miles north of the U.S./Mexico border and adjacent to the northern boundary of the City of El Centro all within the County of Imperial. The California Mid-Winter fairgrounds, the Imperial County Airport, and the Imperial Irrigation District (IID) headquarters are the other primary elements that are identified with the City of Imperial. Due to its centralized location within the Imperial Valley, the City of Imperial is home to a number of State and Federal law enforcement agencies, including the El Centro Sector Headquarters of the U.S. Border Patrol located in the southeast portion of the City.

As of January 2012, the population within the City of Imperial is an estimated 15,353 people according to the California Department of Finance. The City's population doubled between 2000 and 2010, and the population is expected to double again to 30, 970 people by the year 2025. There are currently four (4) residential subdivisions being developed with an average of 170 new single family homes being built each year.

***Imperial's Water Facilities:***

The primary water source for the City of Imperial is the Colorado River. The river water is collected by the Imperial Irrigation District (IID) through the All American Canal, and then delivered to the City via the Dahlia Canal and a 24"diameter raw waterline. The secondary water source consists of the Newside Canal and can provide water piped

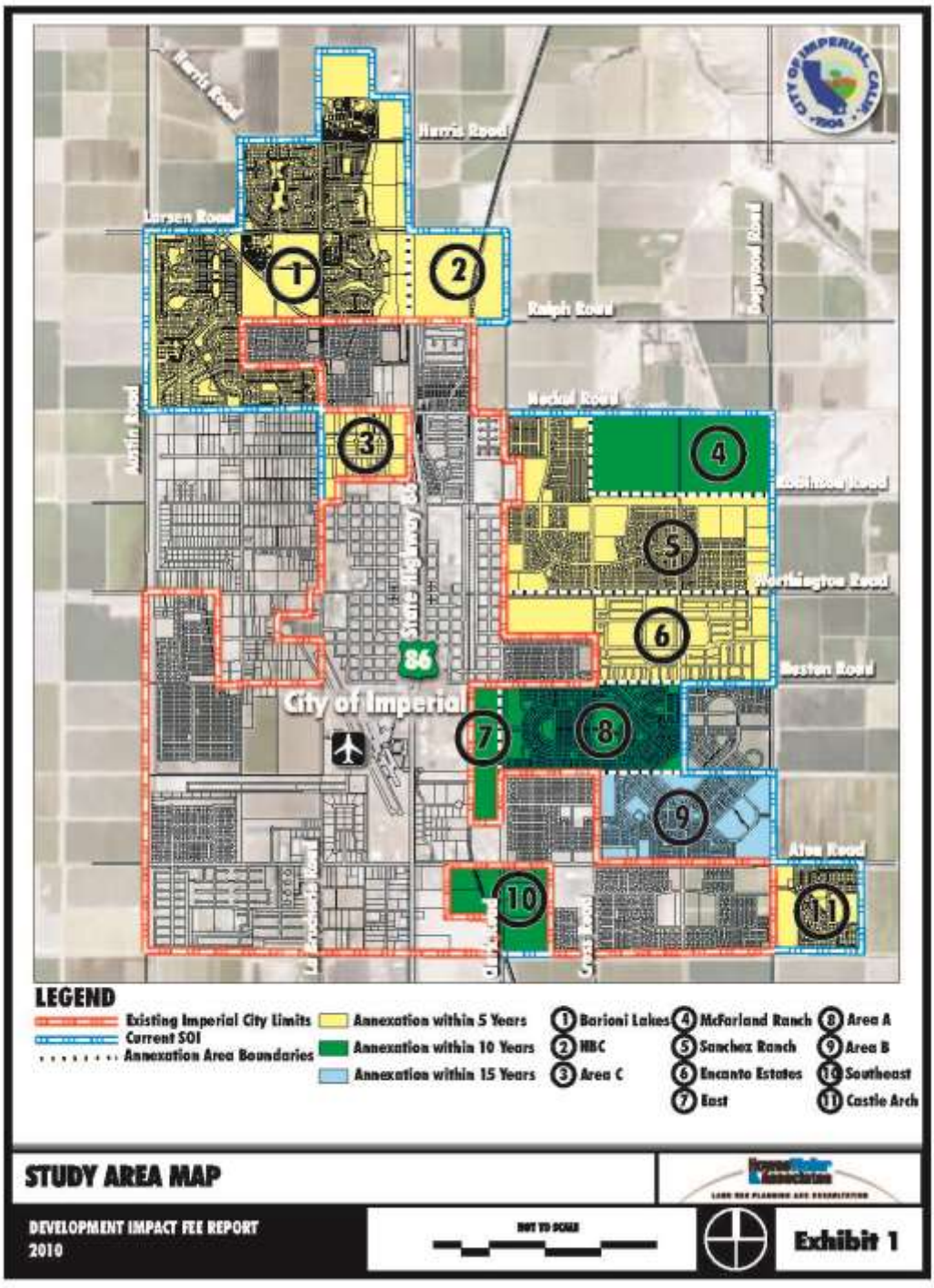
through existing 27" and 16" diameter waterlines which divert water into open reservoirs located at the Water Treatment Plant on the west side of the City. This water is then treated through a sedimentation, filtration, and disinfection process in compliance with the Surface Water Filtration and Disinfection Treatment Regulations (Chapter 17, Title 22, California Code of Regulations), the California Department of Health Services, and Local Agency requirements. The level of treatment and compliance with safe drinking water requirements varies with the quality of the raw water delivered.

The City of Imperial Water Treatment Plant currently has a capacity of approximately 7.0 million gallons a day (MGD). Surplus water is stored at the treatment site in a 2.0 MG storage ground facility. A remote 2.0 MG ground-level storage tank is located at the northeast corner of 13th and O Streets intersection. Another 2.0 MG tank was constructed near Cross Road and Fonzie Road.

To maintain sufficient water pressure (currently about 53 psi), the City has three pump stations. One main station containing three pumps is located at the Water Treatment Plant (WTP) and a smaller station consisting of two pumps is located at the 2.0 MG storage tank at 13th Street and O Street. The third is at the 2.0 MG storage tank at Cross and Fonzi and contains two pumps. The pumps are used to keep water available and to assist when higher pressure is required to fight fires. A standby generator that operates the WTP at half capacity is used during emergencies.

The existing water distribution system includes 63 miles of pipelines ranging in size from 2" to 16". However, the minimum pipeline size for new development is generally 8". A large portion of the existing water distribution system is up to 50 years old. The system contains Asbestos Cement Pipe (ACP) and Polyvinyl Chloride Pipe (PVC). The ACP is the oldest and accounts for roughly 46% of the total pipe length.

Imperial's water service area extends beyond its incorporated boundaries and includes four (4) neighborhoods within the unincorporated areas of Imperial County. There are a total of 4,410 service connections with another 6,000 connections planned over the next 20 years.


Harris Road
Larsen Road
Ralph Road
Worthington Road
Boston Road
Aten Road
State Highway 86
City of Imperial
LEGEND
Existing Imperial City Limits
Current SOI
Annexation Area Boundaries
Annexation within 5 Years
Annexation within 10 Years
Annexation within 15 Years
1 Barioni Lakes
2 HBC
3 Area C
4 McFarland Ranch
5 Sanchez Ranch
6 Encanto Estates
7 East
8 Area A
9 Area B
10 Southeast
11 Castle Arch
STUDY AREA MAP
DEVELOPMENT IMPACT FEE REPORT
2010
Exhibit 1

***Completed Work:***

1. **Planning and Environmental:** This phase is 50% complete. To date, the IRWMP has been created and the projects within this document have been prioritized. This effort has resulted in a coordinated agreement within the agencies of the needed projects, leading to this application and the agreement on a conceptual project to address the interconnection scope as well as conceptual engineering cost estimates. The project was selected as environmental studies are not anticipated, and a CEQA Negative Declaration is expected. All the work is within existing right of way and easements

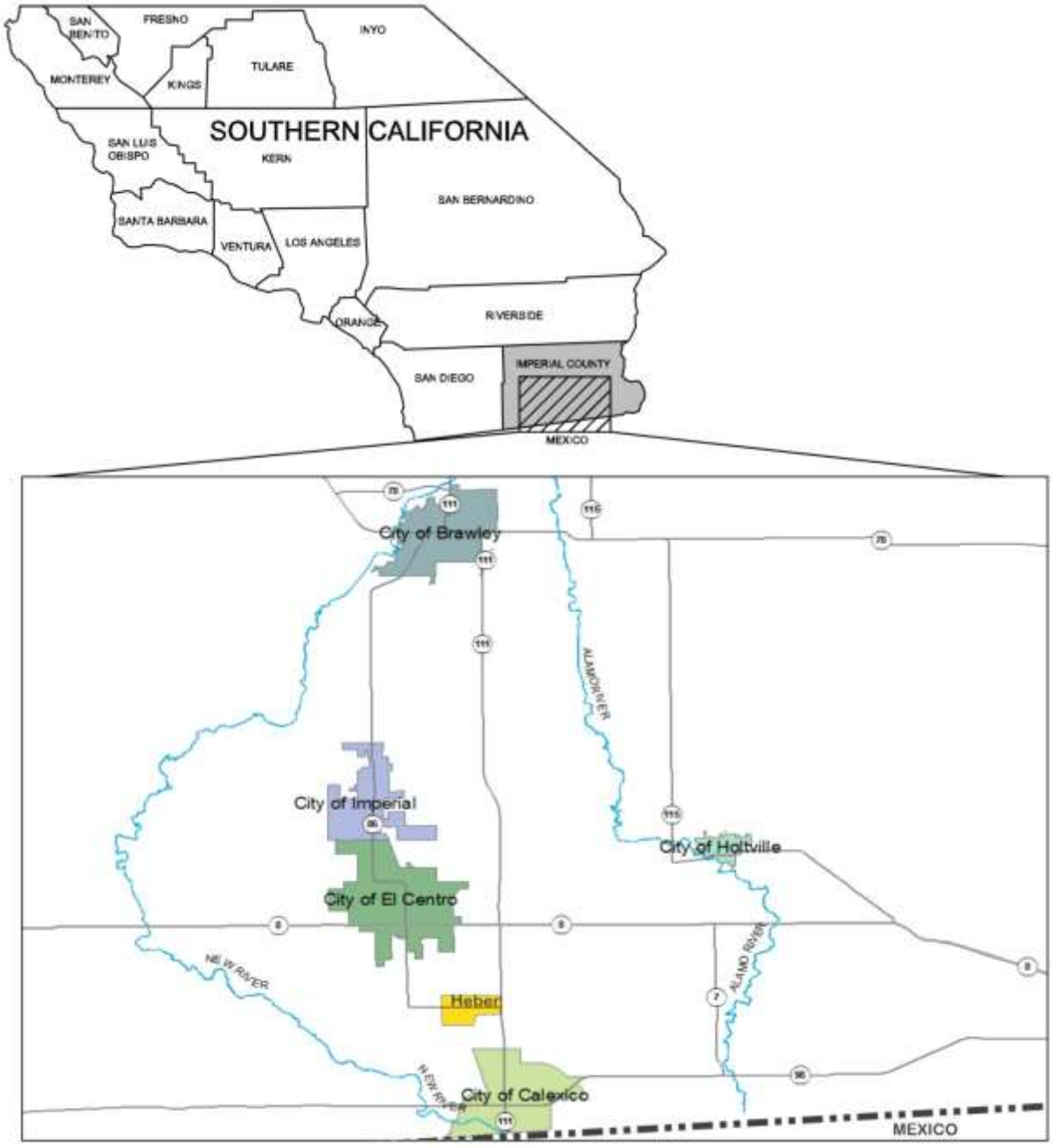
2. **Design and Permitting:** This phase is 0% complete. All agencies have approached their respective Councils or Boards and obtained approval to continue with this project and grant application.

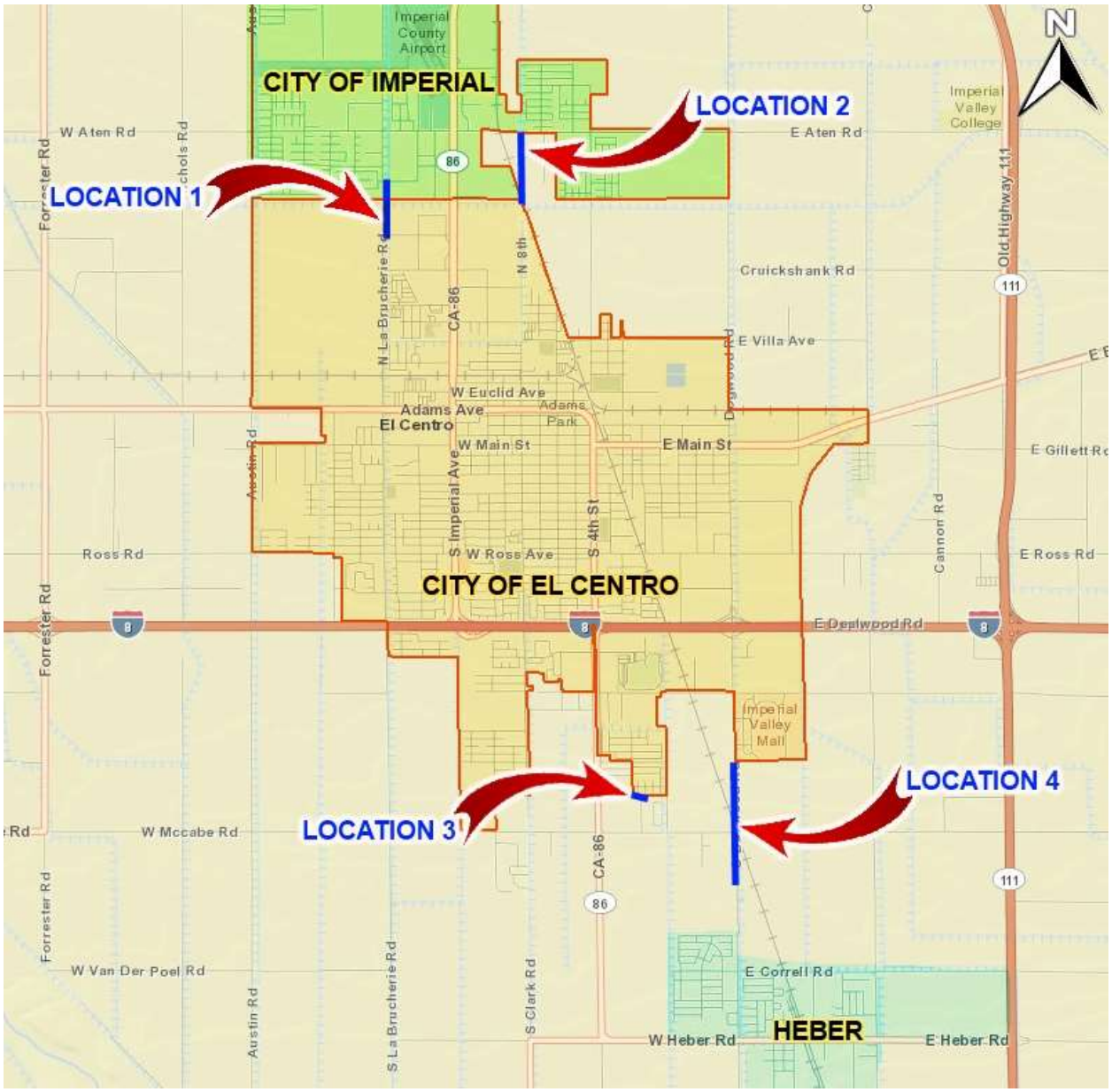
3. **Construction and Construction Management:** This phase is 0% complete. The next step is to secure funding in order to design and construct the project

***Existing Data and Studies:***

Agreement has been obtained to move forward with the Interconnect project from the stakeholders on the project scope as per this application. No formal studies have been performed regarding the interconnection, however the benefits are clear. The City of El Centro's Master plan reads: "The City's water system is vulnerable to extreme emergencies such as earthquakes due to its single source of supply." This project will reduce this vulnerability. Each agency has water master plans and distribution system maps. Staff familiar with the systems has met and agreed on the locations for the interconnections with their respective systems.

***Project Map:***


SAN BENITO
FRESNO
INYO
MONTEREY
KINGS
TULARE
SOUTHERN CALIFORNIA
SAN LUIS OBISPO
KERN
SAN BERNARDINO
SANTA BARBARA
VENTURA
LOS ANGELES
ORANGE
RIVERSIDE
SAN DIEGO
IMPERIAL COUNTY
MEXICO
City of Brawley
ALAMO RIVER
City of Imperial
City of Holtville
City of El Centro
NEW RIVER
ALAMO RIVER
Heber
NEW RIVER
City of Calexico
MEXICO


CITY OF IMPERIAL
LOCATION 1
LOCATION 2
LOCATION 3
LOCATION 4
CITY OF EL CENTRO
HEBER
Imperial County Airport
Imperial Valley College
W Aten Rd
E Aten Rd
Forrester Rd
Old Highway 111
Cruickshank Rd
E Villa Ave
N La Brucherie Rd
CA-86
N 8th
W Euclid Ave
Adams Ave
El Centro
Adams Park
W Main St
E Main St
S Imperial Ave
S 4th St
Austin Rd
Dogwood Rd
E Gillett Rd
Cannon Rd
Ross Rd
S W Ross Ave
E Ross Rd
E Desiwood Rd
Imperial Valley Mall
W Mccabe Rd
W Van Der Poel Rd
S La Brucherie Rd
S Clark Rd
E Correll Rd
W Heber Rd
E Heber Rd
N
8
86
111

***Project Timing and Phasing:***

There are four phases to the project. All can be accomplished within a 12 month time frame. The project will be spearheaded through the Phases by the City of El Centro's Engineering Department. The phases can commerce as soon as funding is available.

1. **Phase 1 – Planning and Environmental** is anticipated to be CEQA negative declaration and 1 month is estimated for this phase.
2. **Phase 2 – Design and Permitting** involves hiring a consultant to design the project and get it ready to bid. This would be a 4 month phase.
   - Phase 2B – Inter-agency memorandums of understanding and agreements for use of interconnection would run concurrent with the Phase 2.
3. **Phase 3 – Construction and Construction Management** would be a 6 months phase and includes 3 months for project advertising and award.

***Proposed Work:***

**Task 1: General Administration** – Administration involves applying for and securing funds, managing grants, and managing contracts with subcontractors such as: labor compliance consultant, designer, contractor, construction manager. The project is routed through stakeholders approving Board or Council.

**Deliverables:** Successful contract and successful grant.

**Task 2: Labor Compliance Program** – This task involves the establishment of a labor compliance program or the hiring of a consultant with an approved labor compliance program to ensure compliance with state prevailing wage requirements.

**Deliverables:** An approved labor compliance program via in-house or through a hired consultant.

**Task 3: Reporting** – This task involves the submission of status updates to all stakeholders and grant administrators on project via quarterly progress reports and final reports.

**Deliverables:** Quarterly and Final reports to stakeholders

***Planning/Design/Engineering/Environmental Documentation:***

**Task 4: Project Assessment and Evaluation** – This is the conceptual set to establish environmental requirements and limits. This task is almost complete.

**Deliverables:** Establishment of final location and size for interconnections and establishment of any needed agreements.

**Task 5: Project Design** – This task includes the contracting of a design consultant through an RFP process where all stakeholders are involved in the selection process. The coordination of stakeholders with the design consultant will carry the project to final design. The City of El Centro will lead this.

**Deliverables:** Final design plans and specifications approved by all stakeholders.

**Task 6: Environmental Documentation** – This occurs concurrent with Task 5 and involves processing the process through CEQA to obtain environmental clearance.

**Deliverables:** Approved CEQA document, Negative Declaration or Notice of Exemption expected.

**Task 7: Permitting** – This involves securing permits with affected utilities, including the Imperial County, the Imperial Irrigation District and Union Pacific. The new pipes will cross these facilities. The process can be run concurrent with Task 5.

**Deliverables:** Approved permits from the affected Utilities and Agencies.

***Construction Implementation:***

**Task 8: Construction Contracting** – City of El Centro will bid the project for construction. This will require prior approval from stake holders.

**Deliverables:** Approved contract with construction company

**Task 9: Construction** – City of El Centro will manage, with the help of a construction manager the project. Construction will involve traffic control, mobilization, trenching, installation of pipes and bidirectional meters, and disinfection of new lines.

***Environmental Compliance/Mitigation/Enhancement:***

**Task 10: Environmental Compliance/Mitigation** – This is a "place holder" item as we do not expect any mitigation measures to be associated with this project.

***Construction Administration:***

**Task 11: Construction Administration** – The City of El Centro will contract a construction manager to manage the day to day activities of the construction. Invoicing and contract management will be managed by City of El Centro staff.

## WORK PLAN: STORMWATER DRAINAGE IMPROVEMENTS TO THE TOWNSHIP OF SEELEY

***Project:***

The City of Seeley is seeking to provide the City with much needed drainage infrastructure. This project will convey rainwater away from the community and will in turn help to prevent the flooding of streets and provide a better and safer public access for vehicles and pedestrians in the community. In addition, as this project utilizes a storm water treatment system to cleanse water as it drains, it will reduce the risk of disease from standing water.

The proposed project will provide additional drainage infrastructure to convey storm water away from Seeley to alleviate the severe flooding issues that plague the residents of this community. The project, which is considered a maintenance improvement, is located within the unincorporated Township of Seeley in the County of Imperial, approximately eight (8) miles west of the City of El Centro, California

***Project Goals and Objectives:***

The project goal is to provide flood protection by improving the drainage infrastructure, and to do so with minimal adverse impacts to the environmental and the disadvantaged community which it serves. The project is consistent with the goals and objectives of the adopted Imperial Integrated Regional Water Management Plan, specifically the goal of flood protection and storm water management.

- **Objective 1: Expand Environmental Stewardship –** The storm water in Seeley currently ponds in the streets and at the side of the road. Seeley residents are at health and safety risk because the standing water causes vector control issues. The water also contains the usual contaminants from vehicles, such as those found in oil and grease. The project will expand environmental stewardship, in that it will drain the water away from the community and will go through a passive storm/nuisance water treatment system, which will trap sediment before the water drains naturally into the New River. It will also lower the risk of disease by reducing standing water that breeds mosquitoes.

- **Objective 2: Practice Integrated Flood Management –** The Township of Seeley currently has a minimum number of engineered drainage structures. The project will construct drain pipes under roadways, which will convey storm water away from the community. The improvement will prevent further flooding of the streets, and will provide better and safer access for vehicles and pedestrians. The project will provide better emergency response time when the streets are flooded, as emergency vehicles will not be hindered by driving through deep water. The improvement will prevent further flooding of the streets, and will provide better and safer access for vehicles and pedestrians.

- **Objective 3: Protect Surface Water –** Seeley's storm water already flows naturally into the New River; however a good deal of the storm water is trapped in the town because of the poor drainage. The drainage improvements will mean

that most of the storm water will drain away from the Community and into the New River. The water treatment system that is a part of this project will mitigate the effect of the additional storm water draining into the New River.

- **Objective 4: Ensure Equitable Distribution of Benefits –** Seeley is classified as a disadvantaged community. The US Census Bureau reports that the mean household income is $34,432. The U.S. Department of Housing and Urban Development classifies Seeley as a "Colonia". Colonias are rural communities located within 150 miles of the US–Mexican Border, which tend to lack basic necessities in infrastructure such as running water, electricity, and paved roads. Ruben Castro, the Seeley Union School District Superintendent reports that 100% of Seeley students are eligible for free or reduced meals; and approximately 80% of the children walk or bicycle to school. The project will benefit all members of the small Community, regardless of income or social status.

***Project Purpose and Need:***

A minimum number of engineered drainage structures currently exist within the community of Seeley. The goal of the proposed project is to provide the Township of Seeley with much needed drainage infrastructure. The project will construct drain pipes under the roadways, which will convey rainwater away from the community. The improvements will prevent flooding of the streets, and will provide better and safer access for vehicles and pedestrians, as well as reduce the risk of disease from standing water.

The proposed improvements will provide financial, educational, and health and safety benefits to the residents of Seeley.

- **Financial**: Prevent loss of revenue to school on rainy days, and the days shortly after rain events. Lower costs to County for road maintenance and repairs, as well as the costs of pumping water and vector control.

- **Health**: Reduce problems with mosquitoes and the diseases they carry.

- **Safety**: Make it safer for pedestrians, who currently walk in the road to prevent walking in the deep water at the sides of the road, and the mud in the shoulders. Safety for school children crossing the street to school, by eliminating the need for the school to place the wooden pallets across the street. Provide easier, quicker access for emergency vehicles.

- **Educational**: Fewer student absences due to rain.

Seeley is categorized as a disadvantaged community by the US Census Bureau. The 2007-2011 American Community Survey 5-Year Estimate, reports that the mean household income in Seeley is $34,432, which is less than 80 percent of the statewide annual median household income.

***Completed Work:***
The City of Seeley project, the County has prepared, through a consultant, the "Seeley Area Drainage Master Plan and Capital Improvement Program Report", please find in attached *Work Plan Exhibit B***.** Preliminary design has been completed.

***Existing Data and Studies:***
The "Seeley Area Drainage Master Plan and Capital Improvement Program Report", is the result of a thorough study. The report identifies, recommends and prioritizes drainage improvements for Seeley. The project, for which these funds are being requested, is designated as priority number one of the Plan. The project is discussed on page 3 of the Plan. Because of the cost, the improvements must be done in several smaller segments. A comprehensive Benefit Cost Analysis was performed in 2011, which provided a Benefit Cost Ratio of 1.78.

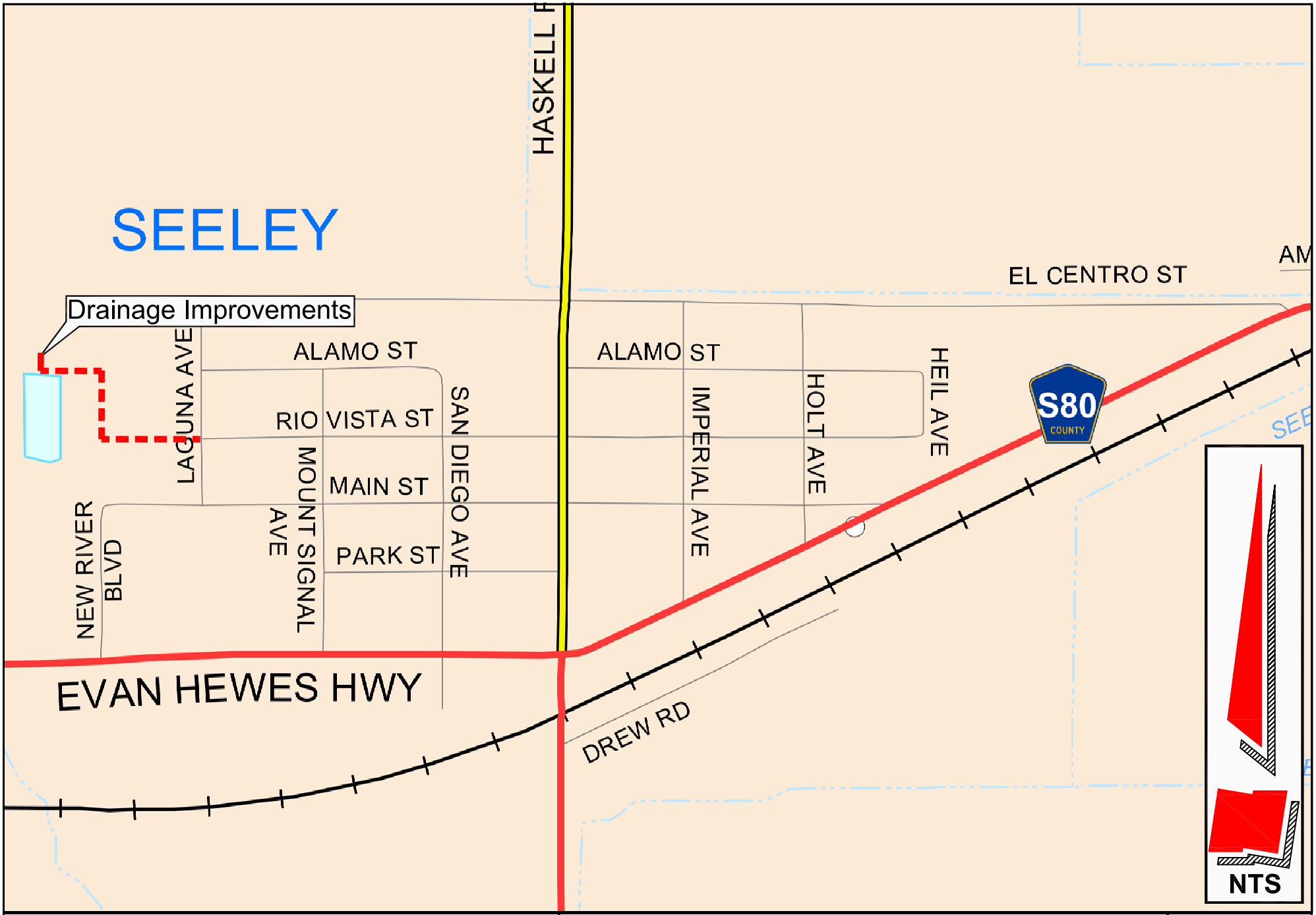
***Project Map:***


**IMPERIAL COUNTY**
**PUBLIC WORKS DEPARTMENT**
**EL CENTRO, CALIFORNIA**

Drainage Improvements in the
Townsite of Seeley;
County Project No. 5363

**LOCATION MAP**

| | |
|---|---|
| DRAWN: | L. LEAL |
| DRAWING No.: | L-854 A |
| DATE: | 07/26/11 |




**IMPERIAL COUNTY**
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Drainage Improvements in the
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***Project Timing and Phasing:***

The recommended improvements identified in the Seeley Master Drainage Plan in *attachment Work Plan Exhibit C,* were prioritized in order of recommended construction from SD-01 (the first recommended phase) to SD-07 (the final recommended phase). The drainage improvements were prioritized in the Plan based on the requirement to construct downstream facilities first. The proposed project represents the first 1600 linear foot segment of the first priority phase (SD-01). The completed project will operate on a stand-alone basis until improvements can be extended in future phases.

The Seeley Master Drainage Plan (the larger project), which covers the entire Township of Seeley, is designed to improve flooding conditions in the Seeley area during runoff producing rainfall events

***Proposed Work:***

The total anticipated cost of the project is estimated at $8,000,000. The estimated $8,000,000 in cost includes design costs ($550,000), construction costs ($6,900,000), construction management ($550,000) and minimal soft costs such as project administration costs**.** The requested funding, $1,900,000 would be a component of the total project cost for the rehabilitation of the WWTP and would be used towards the construction component. Thus far, 50% of design costs will be covered by a grant obtained through the Border Environmental Cooperation Commission and bonds issued in 2011 are available for the other half of design costs. The City is seeking $1,900,000 in grant subsidy from the Department of Water Resources (DWR) to be used towards construction. The remaining funding gap is anticipated from the Clean Water State Revolving Fund (SRF) Program as a subsidized loan. Please refer to *Attachment 4 Budget Project Budget Table 7* for a detail of sources and uses.

The proposed start date for the actual construction is July 15, 2014 and the proposed completion date for the actual construction is November 15, 2014. The detailed plan includes:

**Administration:**

**Task 1: General Administration** – This task includes invoicing and reporting (quarterly and final) as specified in grant agreement. An MOU will be signed with the lead agency and the City of Imperial.

***Planning/Design/Engineering/Environmental Documentation:***

**Task 2: Project Assessment and Evaluation** – Preparation of final plans and specifications; environmental studies and CEQA/NEPA clearance; tribal notification; permits through US Army Corps of Engineers (likely a Section 404 of the Clean Water Act Permit) and California Fish and Game. Discussion has been conducted with the US Army Corps of Engineers.

This will include, bid advertisement; evaluation of bids and the award of a contract. RFP's will be released for resident engineer and construction inspection services.

***Construction Implementation:***

**Task 3: Construction Contracting** – Set up of traffic control & construction area signs; construction of drainage system consisting of 84 and 36 inch storm drain pipe, which will cross underneath roadways and drain into curb inlets at the sides of the road, and will go through a passive storm/nuisance water treatment system, and then will drain naturally into the New River.

There will be construction of approximately 200 linear feet of PCC curb and gutter, with installation of curb inlets, at locations along the project that do not currently have curb and gutter. This project will include subgrade preparation and earthwork along the length of the project to accommodate pavement section of 4" asphalt concrete over 14" asphalt base and trenching. In addition there will be construction of a concrete asphalt pavement section of 4" asphalt base along the streets, going outward 20 feet on both sides starting at centerline of a crossing pipe for a total width of 40 feet to convey storm runoff to curb and gutter.

***Environmental Compliance/Mitigation/Enhancement:***

**Task 4: Environmental Compliance/Mitigation** – Materials testing; passive storm/nuisance water treatment system.

***Construction Administration:***

**Task 5: Construction Administration** – Project management, construction inspection, quality assurance; ensure labor standards compliance; job safety review and enforcement.

***Project Closeout:***

**Task 6:** The City will submit progress reports as well as a final report.