



# **CERTIFICATION PROPOSAL**

## **CUADRILLA WASTEWATER COLLECTION AND TREATMENT PROJECT EL PASO COUNTY, TEXAS**

*Submitted: January 24, 2017*

## CERTIFICATION PROPOSAL

### CUADRILLA WASTEWATER COLLECTION AND TREATMENT PROJECT EL PASO COUNTY, TEXAS

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## EXECUTIVE SUMMARY

### CUADRILLA WASTEWATER COLLECTION AND TREATMENT PROJECT EL PASO COUNTY, TEXAS

<b>Project:</b>	The project consists of the design and construction of a wastewater treatment plant (WWTP) and replacement of the existing wastewater collection system (WWCS) to serve the Unincorporated Community of Cuadrilla, located in the Lower Valley Water District (LVWD) service area in east El Paso County, Texas (the "Project").
<b>Project Objective:</b>	The purpose of the Project is to increase access to safe and sanitary wastewater treatment and collection services, eliminating exposure to untreated or inadequately wastewater discharges contributing to the reduction of water pollution and the risk of waterborne disease.
<b>Expected Outcomes:</b>	<p>The Project is expected to generate environmental and human health benefits related to the following Project outcomes:</p> <ul style="list-style-type: none"><li>• Provide access to improved wastewater collection service for 27 sewer connections;</li><li>• Eliminate untreated or inadequately treated wastewater discharges of approximately 8,160 gallons per day (gpd).<sup>1</sup></li></ul>
<b>Population Benefited:</b>	85 residents of Cuadrilla Colonia, El Paso County, Texas. <sup>2</sup>
<b>Sponsor:</b>	Lower Valley Water District (LVWD)
<b>Estimated Project Cost:</b>	US\$1,800,000.
<b>NADB Grant:</b>	US\$1,800,000 from the Border Environment Infrastructure Fund (BEIF).

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<sup>1</sup> Based on flow data collected during the development of the Project Facility Plan of 80 gpcd.

<sup>2</sup> Based on 27 connections with an average of 3.14 residents per household in El Paso County, from the U.S. Census Quick Facts accessed 11.8.2016 <https://www.census.gov/quickfacts/table/PST045215/48,48141,00>.

**Uses & Sources of  
 Funds:**  
 (US\$ Millions)

Uses*	Amount	%
Wastewater collection and treatment	\$1.80	100
<b>Total</b>	<b>\$1.80</b>	<b>100</b>
Sources	Amount	%
NADB-BEIF grant**	\$1.80	100
<b>Total</b>	<b>\$1.80</b>	<b>100</b>

\* Includes costs related to construction, supervision, contingencies and taxes.

\*\* Funded by the Border Water Infrastructure Program of the U.S. Environment Protection Agency (EPA) .

# CERTIFICATION PROPOSAL

## CUADRILLA WASTEWATER COLLECTION AND TREATMENT PROJECT EL PASO COUNTY, TEXAS

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### 1. ELIGIBILITY

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#### **Project Type**

The Project falls within the eligible sector of wastewater collection.

#### **Project Location**

The Project is located in Cuadrilla, a small unincorporated community, in El Paso County, Texas, approximately 3.5 miles from the U.S.-Mexico border. The Project is in the border region, defined as within 100 kilometers (62.5 miles) of the U.S.-Mexico international border.

#### **Project Sponsor and Local Authority**

The public-sector Project sponsor is the Lower Valley Water District (LVWD). The utility was created in 1986, as municipal utility district to provide water, wastewater, and solid waste services to an area of approximately 210 square miles, east of the city limits of El Paso. The legal authority for the formation and operation of municipal water districts is provided by Texas Water Code Ann. § 49. LVWD serves the City of Socorro, the Town of Clint, and several unincorporated areas. Prior to this Project the Certificate of Convenience and Necessity (CCN) for Cuadrilla was issued to the Cuadrilla Improvement Corporation. As part of this Project, the LVWD revised their existing CCN to include the area, effective September 1, 2013 (HB3933), which authorizes the utility to provide services to Cuadrilla.

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### 2. CERTIFICATION CRITERIA

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#### 2.1. TECHNICAL CRITERIA

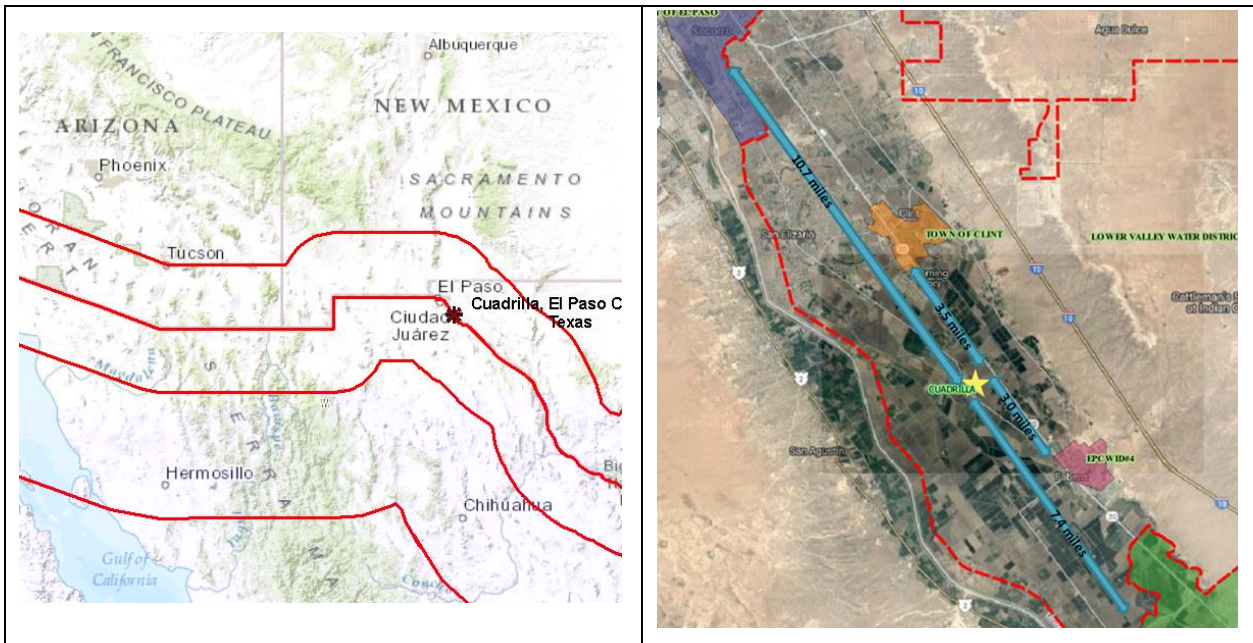
##### 2.1.1. Project Description

#### **Geographic Location**

Cuadrilla is in El Paso County, approximately 20 miles southeast of downtown El Paso. The Project's latitude and longitude are 31°31'57"N, and 106°12'5"W, respectively. Figure 1 shows the approximate location of the Project.

Figure 1

## PROJECT LOCATION



### **General Community Profile**

Cuadrilla is a small, unincorporated residential community designated as a \_\_\_\_\_ by El Paso County, due to the lack of adequate water, wastewater, road and housing infrastructure existing to support the community. Census data specifically for the community is not available. There are 52 residences in Cuadrilla; the LVWD provides potable water to 51 homes, and there is one residence without any public services. The area's population has been estimated at 163 based upon 52 residences with an average of 3.14 inhabitants per household unit in El Paso County.<sup>3</sup>

The estimated Median Household Income (MHI) for El Paso County is \$40,783, and in the nearby community of Fabens, Texas, the MHI is only \$24,327. It can be expected that the MHI of residents in Cuadrilla is more closely aligned with the lower income level described for Fabens. In comparison, the Texas statewide average MHI is of \$52,576. Census figures report that 48.5% of the population of Fabens lives below the poverty line, versus 23.4% for the El Paso countywide and 15.9% for the Texas statewide averages.<sup>4</sup>

The status of public services provided within the service area of LVWD is described in Table 1.

<sup>3</sup> Source: <https://www.census.gov/quickfacts/table/PST045215/48,48141,00>, accessed 11/08/2016.

<sup>4</sup> Ibid.

**Table 1**  
**BASIC PUBLIC SERVICES AND INFRASTRUCTURE**

Water System			
Coverage	~90%		
Supply source	Hueco-Bolson Aquifer purchased from El Paso Water (EPW)		
Number of hookups	16,442		
Wastewater Collection			
Coverage	~75%		
Number of connections:	14,051		
Wastewater Treatment			
Coverage	100%		
Treatment facilities	Plant	Type	Capacity
	EPW Roberto Bustamante WWTP	Extended aeration activated sludge	39 MGD
Solid Waste			
Collection coverage	~90%		
Final disposal	Landfill		
Street Paving			
Street paving coverage	85%		

\* Service coverage for wastewater treatment equals the percentage of discharges collected through the centralized collection infrastructure that are treated by a centralized wastewater treatment facility”.

### **Local Wastewater Systems**

LVWD owns and operates the water distribution system and the wastewater collection system, serving the residents within the District and CCN boundaries including the incorporated communities of Clint and Socorro. The District has inter-local agreements with El Paso Water (EPW) to purchase bulk potable water and the wastewater collected by LVWD is conveyed to wastewater conveyance and treatment facilities owned and operated by EPW. Currently all wastewater collected by the District is treated at the Bustamante WWTP.

As described in Table 1, above, while LVWD has approximately 90% coverage for drinking water service, the District’s WWCS only provides service to about 75% of the homes. In areas that lack access to LVWD’s existing WWCS, septic tanks or other on-site systems are typically used to manage wastewater disposal; however, in the case of Cuadrilla, an aged and deteriorated wastewater collection system infrastructure and a small non-compliant WWTP currently exist and serve approximately half of the homes within the community.

This existing system was constructed by the Cuadrilla Improvement Corporation (CIC) in 1990. The CIC was unable to adequately operate and maintain the WWTP. Due to recurring violations of its discharge permit followed by complete failure of the treatment process, the Texas Commission for Environmental Quality (TCEQ) transferred responsibilities for CIC’s services to the El Paso Water Conservation and Improvement District #4 (EPWCID#4) in September 1999, as a temporary receivership. In 2010, EPWCID#4 submitted an application to BECC, for consideration by the U.S.

EPA Border Water Infrastructure Program for funding to replace the non-compliant treatment facility. These conditions allowed the Project to be selected under Category 1 requirements for U.S.-Mexico Border Water Infrastructure funding, provided by EPA and administered by the Border Environmental Cooperation Commission (BECC) and the North American Development Bank (NADB).<sup>5</sup> While the application was selected for project development support, the immediate requirement to define permanent ownership of the system needed to be resolved prior to initiating the planning process.

Cuadrilla was never annexed into EPWCID#4's service area and the status of the ownership of infrastructure remained in limbo until the Texas legislature modified the CCN boundaries of the LVWD to include Cuadrilla, at the District's request in September 2013. LVWD currently provides water services to the colonia and the dilapidated WWTP continues to receive wastewater from the community, before it is discharged with minimal treatment to an irrigation ditch which eventually reaches the Rio Grande River. Since the WWTP's failure in 1999, it has never been re-permitted and the wastewater collection system is also severely deteriorated and requires replacement.

Resolving the current situation with Cuadrilla's existing infrastructure is a priority for LVWD since it leaves the District in violation of TCEQ regulations, which has been documented with formal Notices of Violation (NOVs) issued to the District from TCEQ. Currently, the NOVs have not required the payment of fines because there has been consistent progress in working to resolve the problem; however, if progress towards a resolution stops, penalties will become monetary. Furthermore, the existing condition of the facility requires constant maintenance attention and the costs are accumulating quickly. Finally, there is a continuous risk that the management entity for the irrigation canal, El Paso County Water Improvement District #1 (EPCWCID#1), could demand that LVWD discontinue the use of its infrastructure and find a way to haul the wastewater effluent from the WWTP to an appropriate liquid waste facility.

### **Project Scope**

The proposed Project will serve 27 residential connections in Cuadrilla and will consist of the following elements:

- Construction of nearly 2000 LF of 8" gravity line to replace the existing sewer lateral system.
- Installation of a package WWTP with the capacity to treat an average of 8,000 gpd of residential wastewater to meet the anticipated TCEQ and EPCWCID#1 discharge permits.<sup>6</sup>
- Decommissioning and removal of the existing Cuadrilla WWTP.

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<sup>5</sup> The intent of this category is to identify projects that correct an immediate adverse environmental effect or the potential for an adverse human health effect. These projects are designed to improve a community's quality of life with adequate and safe services.

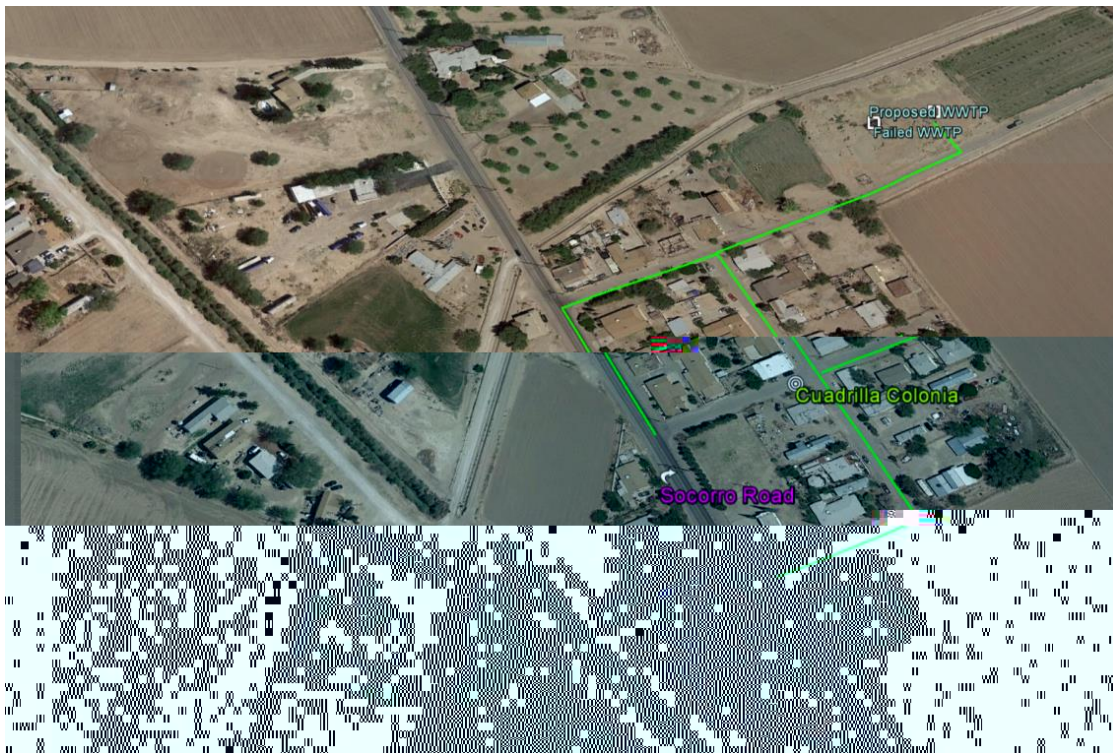
<sup>6</sup> Wastewater "package" plants are predesigned facilities, constructed in a manufacturing plant, transported to the final installation site, where the plant is connected to the collection and discharge infrastructure. Package plants typically come in units with set capacities, and in some cases may be expanded by adding additional units.



Although the community has a total of 51 homes, the areas to the east of Socorro Road and to the north of the WWTP site are not going to be served by this Project. Rights-of-way and easement issues need to be resolved and a small lift station will be required to convey wastewater across irrigation canals. Currently, these residences use permitted septic tanks and no issues have been identified.

Figure 2 below shows a schematic layout of the proposed system. The new WWCS is shown in green and the location of the new WWTP is also noted. The new treatment facility will be installed on the same lot as the existing plant and discharged to the same EPCWCID#1 infrastructure.

**Figure 2**  
**SCHEMATIC OF CUADRILLA IMPROVEMENTS**



The Project will be implemented using a design-build procurement process. While the design of the WWCS was completed in April 2016, the design-build package will require the design, acquisition and installation of a small package WWTP to receive the wastewater flows conveyed by the new WWCS. The construction of the WWCS along with some site preparation work can initiate in parallel with the design phase for the WWTP, which is expected to require only four to six weeks. As soon as the design of the package WWTP is complete, a discharge permit application will be submitted to both TCEQ and EPWID#1.

Table 2 shows the proposed schedule for Project implementation milestones.

**Table 2**  
**PROJECT MILESTONES**

Key Milestones	Status
Procurement	Anticipated: First quarter 2017
Discharge Permits	Pending and required prior to operation
Design, acquisition and installation	Complete within one year from NTP

## **2.1.2. Technical Feasibility**

### **Design Criteria**

The design of the WWCS conforms to the standards of the (TCEQ) (Chapters 217 and 317: Design Criteria for Domestic Wastewater Systems, August 28, 2008, and Design Criteria for Sewerage Systems, January 6, 2005 respectively). The TCEQ sets standards for design, submittals, operations, maintenance, construction and safety. The applicable design standards include the sewer sizing, pipe slopes, minimum pipe cover, manhole sizing and spacing, pipe materials, pipe bedding, etc. The TCEQ standards have been developed to ensure that the sewage will flow through the system with an adequate velocity as well as to minimize operations and maintenance needs.

The same design criteria will be followed for the package WWTP and performance standards for treatment will be set based on the anticipated discharge quality required by TCEQ and the EPCWCID#1.<sup>7</sup> BECC has contracted a consultant to assist the sponsor in preparing the design-build procurement package to assure that the performance standards are aligned with the applicable laws and regulations for discharge into an irrigation canal. The discharge permit applications will be submitted once design is complete.

### **Selected Technology**

The Facility Plan (FP) developed during the planning stages of the Project included an alternative analysis of technical solutions to provide adequate wastewater collection and treatment infrastructure to the residents of Cuadrilla. The options considered viable for providing service to the community included:

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<sup>7</sup> TCEQ typically sets discharge standards during the permitting process, and the standards are dependent on variety of factors such as discharges for irrigation versus to rivers, the quantity of discharge, and the source of the wastewater. For this Project the plant will likely need to meet a discharge requirement of 20 parts per million (ppm) for both Biochemical Oxygen Demand (BOD) and Total Suspended Solids (TSS).

**Table 3**  
**ALTERNATIVE ANALYSIS**

Alternative Description	Estimated Cost (US\$)	Selection Result
Discharge to LVWD's existing WWCS	4.5 M	Advantages included opportunities to serve additional subdivisions along the conveyance route. Disadvantages included high cost and construction challenges.
Discharge to WCID#4's (Fabens, TX) existing WWCS	3.2 M	Advantages included existing water customers and shorter conveyance route. Rejected due to WCID#4's decision to decline the expansion of its service area to include Cuadrilla
Construct a new package plant	1.8 M	Advantages included lowest cost, ease of construction, committed sponsor (LVWD), and sponsor's preference for technical approach. Disadvantages included requirement for permits and lack of sponsor experience with WWT.

While the replacement of the existing package plant with a new facility at the same site was the lowest cost solution, initially, the recommended alternative was to convey wastewater from the community to a manhole in the LVWD's existing WWCS. LVWD preferred this alternative because it would provide access to wastewater infrastructure to other un-served subdivisions along the conveyance route. The design of this option required the construction of two lift stations and approximately 10,000 linear feet of gravity sewer and 13,000 linear feet of force main along Alameda Avenue. After final design was complete, the originally estimated cost for the infrastructure had grown from US\$3.5 million to nearly US\$5 million due to pipe installation challenges such as required lift station sizing, construction depth and dewatering.

Based on the high cost of the conveyance option, change in management and newly acquired technical capacity by LVWD staff to operate a package WWTP, the sponsor proposed the reconsideration of the more cost-effective option, which was accepted by EPA. However, due to the time and funds invested in the previous alternative, it was necessary to also consider methods to advance the Project as quickly as possible. A design-build procurement process will be utilized to meet this expectation because of the following Project characteristics:

- Reasonable confidence is achieved for Project cost because the final design for the WWCS is already complete and the estimated cost of the small package WWTP can be solicited from a number of vendors based simply on treatment capacity requirements.
- Package WWTPs are typically procured through a design-build process since the facility will be a standard design provided by the manufacturer based on capacity and performance standards and design for site work will be minimal.

- The design-build scheme will allow construction activities such as the installation of the WWCS and site work to advance in parallel with the completion of the design and acquisition of the package WWTP from the manufacturer.

The existing wastewater collection system will be abandoned in place and replaced with a conventional gravity collection system utilizing 8-inch PVC pipe materials, selected for proven to be reliability as well as familiarity and ease of operation and maintenance. The pipe diameter was selected using appropriate slopes and velocities to prevent pipe silting and clogging, septic conditions, over-excavation or the need for pumping facilities that could increase project costs.

### **2.1.3. Land Acquisition and Right-of-Way Requirements**

All work will be conducted within the existing rights-of-way (ROW) and will not require the purchase of any additional land or easements. The WWTP will be installed on property currently owned by the LVWD. Work within the El Paso County ROW's will require traffic control during construction. The design and construction plan for the WWCS has been reviewed and approved by the County.

### **2.1.4. Management and Operations**

The construction, operations and management of the proposed Project will be the responsibility of LVWD. As the managing authority, LVWD will ensure that sufficient resources, training, and staff are available to properly operate the new wastewater collection and treatment system.

LVWD provides both water distribution and wastewater collection services and has established procedures for operations and maintenance for both systems. LVWD was established in 1986 as a municipal water district, since that time the utility has worked to expand its water and wastewater systems to provide services throughout its service area. The utility provides service to approximately 16,442 water connections and 14,051 wastewater hookups. In order to provide adequate services to its customers the utility maintains a highly trained operations and engineering staff.

Interlocal agreements between LVWD and EPW have been established that allow LVWD to purchase potable water from EPW and to send collected wastewater flows to EPW for treatment. Since the EPW is the ultimate service provider for wastewater treatment LVWD complies with the pretreatment rules and regulations of the EPW. The community of Cuadrilla has residential users only; therefore, it is highly unlikely that pretreatment will be required in the community.

The LVWD does not have long-term experience operating a wastewater facility; however, it does have staff qualified to operate the new package plant and has been operating and maintaining the existing plant since 2015. LVWD is interested in pursuing the package WWTP solution, in this case, because the District includes many similar isolated communities that cannot be easily connected to the existing WWCS and similar systems may be appropriate to meet those unincorporated community needs. The LVWD anticipates that using package plants may be a

viable option in many areas. In addition to the works described as part of this Project, LVWD will be rehabilitating the water distribution system serving the residents of Cuadrilla.

The wastewater services will be supported by a base rate for wastewater of no more than \$22.75 per connection and an average monthly combined water and wastewater bill of \$65.00, reflecting the same charges as to any LVWD customers receiving both services. The impacts of the proposed Project to the O&M budget and procedures have been reviewed and considered financially-sustainable.

LVWD has significant experience working with the Border Water Infrastructure Program with previous PDAP/BEIF program funding awards for a WWCS project in Cotton Valley (December 2014), WWCS project in Clint (December 2009), and a district-wide drinking water and WWCS project (June 1998). The Cotton Valley project will initiate construction in February 2017 and will benefit 78 new connections and eliminate the untreated or inadequately treated discharges related to the existing substandard on-site wastewater disposal systems, which will be decommissioned as part of that project.

## **2.2. ENVIRONMENTAL CRITERIA**

### **2.2.1. Compliance with Applicable Environmental Laws and Regulations**

#### **Applicable Laws and Regulations**

The Project is subject to the National Environmental Policy Act (NEPA) environmental clearance process (42 USC §§4321-4370f). To be eligible for funding from the US-Mexico Border Water Infrastructure Program, all projects must obtain a Finding of No Significant Impact (FONSI). EPA Region 6 completed the environmental review and clearance process for this project, in accordance with the NEPA Council on Environmental Quality (CEQ) regulations found at Title 40 CFR §§1500.1-1508.28, and EPA NEPA regulations at 40 C.F.R. Part 6.

The Clean Water Act (CWA) is the primary law regulating public wastewater systems. In accord with the CWA, all discharges are regulated through the EPA's National Pollutant Discharge Elimination System (NPDES). The Texas Commission for Environmental Quality monitors and inspects all point discharges to verify compliance with requirements set by the utility's permit requirements.<sup>8</sup> As a result of this Project discharges will be monitored and permitted.

#### **Environmental Studies and Compliance Actions**

The Project is subject to regulations under NEPA; therefore, an Environmental Information Document (EID) was prepared for the Project and submitted to EPA in November 2013. The EID addresses the environmental impacts that would result from the implementation of the proposed action specific concerns addressed in the NEPA process include:

- Air quality, odors, and greenhouse gas emissions
- Noise impacts

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<sup>8</sup> Source: <https://www.tceq.texas.gov/permitting/wastewater>.

- Water quality, hydrology and floodplain impacts
- Biological resources and wetland impacts
- Cultural and historic resource impacts
- Geology and soils impacts
- Municipal and public service impacts
- Public health, hazards and waste management
- Socioeconomic conditions
- Land use and planning
- Transportation and circulation
- Utilities and service systems, and
- Environmental justice

Based on the findings and conclusions of the EID, EPA Region 6 prepared an Environmental Assessment (EA) and a Finding of No Significant Impact (FONSI), which was issued on September 29, 2014, determining that implementation of the proposed Project will not result in significant impacts to the environment. Although the EA concluded that there will be no significant adverse impacts on the environment, mitigation measures were established in the document to address temporary, minor adverse impacts during construction and are enforceable under the FONSI. These measures are provided, in summary, in Section 2.2.2. below, and available for detailed review in the official FONSI document.

#### **Pending Environmental Tasks and Clearances**

There are no pending environmental tasks or authorizations.

#### **Compliance Documents**

The FONSI for this Project was issued on September 29, 2014 and is available for review.

### **2.2.2. Environmental Effects / Impacts**

#### **Existing Conditions and Project Impact – Environmental**

Currently, residents in the community of Cuadrilla receive drinking water services from LVWD. Just less than half of the homes in the community use on-site septic systems for wastewater disposal. These homes have larger lots and no problems with the existing on-site systems have been identified. The other 27 homes in the community, located on smaller lots, which do not meet TCEQ regulations for individual on-site systems, are connected to an aged and deteriorated wastewater collection system infrastructure, which conveys collected flows to an unpermitted WWTP, which discharges untreated or inadequately treated discharges to an irrigation canal adjacent to the WWTP site.

While the problems with the Cuadrilla infrastructure existed prior to LVWD's ownership, the District has taken responsibility to operate and maintain the existing WWCS and failed wastewater

treatment facility. It is a priority for the District to replace the existing system and avoid environmental and human health risks caused by the current operating conditions. The Project is expected to generate environmental and human health benefits related to the following outcomes:

- Provide access to improved wastewater collection service for 27 sewer connections;
- Eliminate untreated or inadequately treated wastewater discharges of approximately 8,160 gallons per day (gpd).<sup>9</sup>

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Although implementation of the Projects will have no significant adverse impacts on the environment, mitigation measures were established to address temporary, minor adverse impacts during construction. Potential impacts during construction include the following:

- The local air basin will be temporarily impacted by emissions of carbon monoxide, nitrous oxide and sulfur dioxide emissions due to vehicles and equipment used during construction.
- Noise levels may be elevated during construction activities. This impact is short in duration and concentrated to the work area and will include temporary roadway blockages; as well as presence of workers in the area.
- Surface water resources could be temporarily impacted by construction storm water runoff.
- Threatened and endangered species may be disturbed.

In summary, the mitigation measures include the following:

- Best Management Practices (BMP) and compliance with local ordinances to reduce the temporary impacts of construction.
- The LVWD is responsible for continued coordination with both the U.S. Fish and Wildlife Service (USFWS) and the Texas Park and Wildlife (TPWD) to insure that protected species and their designated habitat in the area will not be adversely impacted by construction.
- If cultural materials are encountered during construction, work will stop immediately in the general area of the discovery, and the funding recipient will immediately notify the State Historic Preservation Office (SHPO) of the discovery.
- The LVWD is responsible for continued coordination with the TCEQ, and must obtain and abide by any/all necessary permits to insure that ground water resources in the area will not be adversely impacted by the construction.
- All vehicles and equipment used in the construction of this project must comply with federal regulations concerning the control of air pollution from mobile sources.

By following BMPs the temporary impacts due to construction will be minimized and long-term environmental impacts resulting from the Project's implementation will be positive overall.

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<sup>9</sup> Based on estimates provided in the Facility Plan of 80 gpcd.

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The Project contributes to improved water resource management and conservation, by protecting groundwater from inadequately treated sewage discharges and protecting surface waters by eliminating untreated discharges from the existing WWTP. The new wastewater treatment facility will be fully compliant with discharge permit requirements. The WWCS will operate using gravity, eliminating the need for external energy inputs for conveyance to the WWTP. Energy efficiency will also be employed as a performance standard for the selected package WWTP.

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The no-action alternative was not considered because the consequences of not developing the Project included the following:

- Non-compliance with environmental and health-related directives developed by the EPA and the Texas Department of Health.
- Non-compliance with federal- and state-mandated environmental protection laws, rules, and regulations, resulting in formal violations and fines.
- Increasing potential for surface water and groundwater contamination.
- The health and safety of the Project area residents would be negatively impacted by the lack of adequate wastewater collection and treatment services.
- Operation and maintenance costs will continue to rise based on continuously deteriorating infrastructure conditions.

#### **Existing Conditions and Project Impact – Human Health**

The project is aimed at eliminating health risks resulting from human contact with inadequately treated wastewater discharges. According to World Health Organization (WHO), sanitation projects can have the following benefits:<sup>10</sup>

- Diarrheal diseases account for 2 million deaths annually worldwide, improved sanitation reduces diarrhea morbidity by 32%.
- One gram of feces may contain 10M viruses, 1M bacteria, 1000 parasitic cysts, and 100 worm eggs.
- 4% of global disease burden can be prevented through improved water supplies, sanitation, and hygiene.

Waterborne diseases are caused by pathogenic microorganisms that are transmitted as a result of inadequate wastewater disposal practices and unsafe water supplies. An individual may become ill after drinking water that has been contaminated with these organisms; eating uncooked foods that have been in contact with contaminated water; or through poor hygiene habits that contribute to the dissemination of diseases by direct or indirect human contact. Table 4 shows waterborne statistics for El Paso County, Texas.

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<sup>10</sup> Source: WHO, Water, Sanitation and Hygiene Links to Health, Facts and figures, accessed May 11, 2015  
[http://www.who.int/water\\_sanitation\\_health/facts\\_figures/en/](http://www.who.int/water_sanitation_health/facts_figures/en/).



**Table 4**  
**WATERBORNE DISEASE STATISTICS FOR EL PASO COUNTY, TEXAS**

Disease	Number or Annual Cases				
	2011	2012	2013	2014	2015
Amebiasis	0	1	4	1	4
Campylobacteriosis	38	45	51	58	71
Cryptosporidiosis	2	2	1	3	NA
Hepatitis A	3	2	3	2	2
Shigellosis	109	60	31	23	24

Source: Texas Department of State Health Services (<http://www.dshs.texas.gov/idcu/default.shtm> accessed 11/08/2016).

### **Transboundary Effects**

No negative transboundary impacts are anticipated as a result of the Project. The package plant will eliminate a source of untreated discharges to an irrigation canal, which eventually reaches the Rio Grande. A positive effect on the Rio Grande watershed is supported by the proposed Project.

### **2.3. FINANCIAL CRITERIA**

The total estimated cost of the Project is US\$1,800,000, which includes the funding for construction, supervision, and contingencies. The Project meets all BEIF program criteria and has been approved by EPA for a BEIF grant of up to US\$1,800,000 to complete the financing of the Project. Table 3 presents the total Project costs, as well as the sources of funds.

**Table 5**  
**USES AND SOURCES OF FUNDS**  
(US\$)

Uses*	Amount	%
Wastewater collection and treatment	\$1,800,000	100.0
<b>TOTAL</b>	<b>\$1,800,000</b>	<b>100.0</b>
Sources	Amount	%
NADB-BEIF grant**	\$1,800,000	100.0
<b>TOTAL</b>	<b>\$1,800,000</b>	<b>100.0</b>

\* Includes construction, contingencies and supervision.

\*\* Funded by U.S. EPA Border Water Infrastructure Program.

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### **3. PUBLIC ACCESS TO INFORMATION**

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#### **3.1. PUBLIC CONSULTATION**

BECC published the draft Project Certification Proposal for a 30-day public comment period beginning December 16, 2016. The following Project documents were made available, upon request, for public access:

- Improvements to the Wastewater Collection System for The Cuadrilla Colonia, Texas Environmental Information Document, Huitt-Zollars, Inc. July 2013
- Finding of No Significant Impact for Wastewater Infrastructure Construction Project Located in the Cuadrilla Colonia, El Paso County, Texas September 29, 2014.
- Final Design for the Cuadrilla Wastewater Collection System, Cuadrilla Colonia, El Paso County, TX, Huitt-Zollars, Inc. June 2015.

The public comment period ended on January 15, 2017, with no comments received.

#### **3.2. OUTREACH ACTIVITIES**

LVWD conducted outreach efforts to communicate the Project's characteristics, including cost and fees and to obtain the support of the residents of the Project's service area. In accordance with the public outreach requirements of the U.S.-Mexico Border Water Infrastructure Program, activities such as the use of a local Steering Committee, public meetings, and access to Project information were followed as described in the Project's Public Participation Plan (PPP). The following information provides a summary of the outreach activities carried out for the Project.

The local Steering Committee was formed in April 2012. The Steering Committee includes members of the sponsor's staff and community members. The Steering Committee developed a public participation plan and periodically met with the Project team throughout the development period to help the Project sponsor to disseminate information regarding the Project. The Project's

technical and financial information was made available to the public for review. The Local Steering Committee, with assistance from the Project sponsor, prepared a fact sheet and a presentation on the Project. Information on the Project has been presented to the community during two public meetings held on June 13, 2012 and August 7, 2013.

Notices for the first two public meetings were posted on June 1, 2012, and July 3, 2013 respectively. The meetings were held at St Anthony's Catholic Church in Cuadrilla. The purpose of these meetings was to present the anticipated Project benefits, potential environmental impacts and other technical information. The meeting gave residents the opportunity to comment on the proposed Project. Seven residents attended the June 13<sup>th</sup> meeting and 31 residents attended the second public meeting, support for the project is strong based on survey responses.

Additionally, the Project included a public comment period that preceded EPA's issuance of the FONSI in September 2014. No public comments were received related to the proposed Project, nor were there any identified environmental effects for the Project.

To further gauge public access to Project information, BECC also conducted a media search to identify any relevant news coverage or potential public opinion about the Project. The search did not find any Project-related articles.