

Environmental Determination

MEMORANDUM

TO: File

FROM: T. Clay Schultz, Ph. D., Director, Regional Water Project Development

DATE: October 14, 2016

SUBJECT: North Alamo Water Supply Corporation, Hidalgo County
Environmental Determination
North Weslaco Colonias Wastewater System Project
Economically Distressed Areas Program: Project 10445 (G1000341)

The attached memorandum contains the staff's views regarding the environmental soundness of the wastewater system components of the North Weslaco Colonias Wastewater System Project proposed by the North Alamo Water Supply Corporation (Corporation) in Hidalgo County, Texas. This project will utilize planning, acquisition, and design funds from grant G1000341 from the Economically Distressed Areas Program (EDAP). The Texas Water Development Board (TWDB) committed this grant on December 11, 2014, in the amount of \$1,568,000. The Corporation closed the grant on August 18, 2015.

The proposed wastewater system project will provide first-time sewage service to a cluster of colonias that includes ten subdivisions within the project area: Cielo Azul #3, Cielo Azul #5, Olivarez #4, Sunrise, La Paloma #1, La Paloma #2, Puesta Del Sol, Sunrise Hill, Mesquite, and Los Alamos, located in southeastern Hidalgo County. Specifically, the proposed project will consist of the installation or construction of: (1) approximately 56,200 linear feet of polyvinyl chloride (PVC) gravity sewer pipe; (2) approximately 5,600 linear feet of PVC force main; (3) 165 manholes, measuring 48 inches in diameter; (4) 768 4-inch-diameter service connections; (5) three lift stations; (6) a new 700,000-gallon-per-day wastewater treatment plant; and (7) necessary appurtenances, including pavement repairs.

The sanitary sewer collection lines, which will be constructed within the existing rights-of-way, will collect and transport wastewater to the proposed new wastewater treatment plant located on Mile 12-1/2 Road approximately 0.5 mile west of Farm-to-Market Road 1015 in Hidalgo County. The proposed new wastewater treatment plant will be an activated sludge plant, and will include: 1) a plant lift station; 2) headworks; 3) an aeration basin; 4) two clarifiers; 5) a return activated sludge/waste activated sludge (RAS/WAS) pump station; 6) disinfection system; 7) a one-meter belt filter press; 8) two sludge drying beds; 8) an operations/electrical building; and 9) site improvements, including plant security fencing, plant roads, and drainage.

Based on TWDB staff's environmental review, no significant adverse environmental impacts should result from the proposed project discussed in the attached Environmental

Determination. As required by 31 Texas Administrative Code § 363.14, full consideration has been given to the views and comments of the requisite regulatory agencies and affected persons. Based on this review, the following conditions have been developed in order to ensure that this TWDB-funded project is environmentally sound and will not have any adverse impacts on the quality of the human environment:

- In order to ensure compliance with the Migratory Bird Treaty Act, contract documents will include provisions that prohibit the clearing of shrubs or trees during the March to August migratory bird nesting season. Contractors will be made aware of the potential of encountering migratory birds (either nesting or wintering) in the proposed project site and be instructed to avoid negatively impacting them. If vegetation clearing and/or construction in a potential bird nesting area must be scheduled during the nesting season, contract documents will require that the vegetation area to be impacted be surveyed for active nests by a qualified biologist. If active nests are observed during surveys, the contract documents will require that a 150-foot buffer of vegetation remain around the nests until the young have fledged or the nest is abandoned;
- As per agreement with Texas Parks and Wildlife Department, and to ensure compliance with Parks and Wildlife Code § 68.015, for the protection of state-listed threatened amphibian species [black-spotted newt (*Notophthalmus meridionalis*) and South Texas siren (*Siren* sp. 1)], open cut trenching will not be used for pipeline crossing of ditches and canals. In addition, material and equipment staging areas will not be located in aquatic areas;
- Standard emergency condition for the discovery of cultural resources; and
- Standard emergency condition for the discovery of threatened and endangered species.

With the addition of these conditions, the specified project elements above are environmentally sound and design and acquisition funds may be released once all other requirements are satisfied.

Enclosure

TO: T. Clay Schultz, Ph. D., Director, Regional Water Project Development

THROUGH: Mireya Loewe, Manager, Team 6 – South (Regions M and N)

FROM: Lauren Dill, Environmental Reviewer, Team 6 (Regions M and N)

DATE: October 14, 2016

SUBJECT: Environmental Summary
North Alamo Water Supply Corporation, Hidalgo County
North Weslaco Colonias Wastewater System Project
Economically Distressed Areas Program: Project 10445 (G1000341)

Pursuant to the environmental assessment requirements of 31 Texas Administrative Code § 363.14, Texas Water Development Board (TWDB) staff has conducted a review of the North Weslaco Colonias Wastewater System Project proposed by the North Alamo Water Supply Corporation (Corporation) in Hidalgo County, Texas. This project will utilize planning, acquisition, and design funds from grant G1000341 from the Economically Distressed Areas Program (EDAP). The TWDB committed this grant on December 11, 2014, in the amount of \$1,568,000. The Corporation closed the grant on August 18, 2015.

Purpose and Need¹

Ten unincorporated colonia areas, north of the City of Weslaco and within the North Alamo Water Supply Corporation's (Corporation) service area, currently utilize failing septic systems and pit privies, which pose a risk to the residents' health. The purpose of the proposed project is to eliminate a public health risk and improve water quality in the general area by providing wastewater collection and treatment services to these colonias.

Background

The Corporation initially proposed to provide new wastewater collection and treatment services to 31 subdivisions. However, the EDAP funding requires that the Texas Department of State Health Service (TDSHS) determines that there is a public health nuisance. In 2009, the TDSHS found that only 10 of the 31 subdivisions met the criteria for the determination of a public health nuisance: Cielo Azul #3, Cielo Azul #5, Olivarez #4, Sunrise, La Paloma #1, La Paloma #2, Puesta Del Sol, Sunrise Hill, Mesquite, and Los Alamos, located in southeastern Hidalgo County.

Project Description

The proposed wastewater system project will provide first-time sewage service to a cluster of colonias that includes ten subdivisions, referenced above. The proposed project

¹ North Weslaco Water Supply Corporation (July 2016). *Environmental Data Form: North Weslaco EDAP Project*, (Prepared by Melden and Hunt, Inc.). Received by TWDB on July 26, 2016. The EDF is complete with the final supplementary materials submitted to the TWDB on September 27, 2016.

will consist of the installation or construction of: (1) approximately 56,200 linear feet of polyvinyl chloride (PVC) gravity sewer pipe; (2) approximately 5,600 linear feet of PVC force main; (3) 165 manholes, measuring 48 inches in diameter; (4) 768 4-inch-diameter service connections; (5) three lift stations; (6) a new 700,000-gallon-per-day wastewater treatment plant (WWTP); and (7) necessary appurtenances, including pavement repairs.

The sanitary sewer collection lines will collect and transport wastewater to the proposed new WWTP to be located on Mile 12-1/2 Road, approximately 0.5 mile west of Farm-to-Market Road 1015 in Hidalgo County. The proposed new WWTP will be an activated sludge plant, and include: 1) a plant lift station; 2) one carousel oxidation ditch with headworks; 3) an aeration basin; 4) two final clarifiers; 5) a return activated sludge/waste activated sludge (RAS/WAS) pump station; 6) disinfection system; 7) a one-meter belt filter press; 8) two sludge drying beds; 8) an operations/electrical building; and 9) site improvements, including plant security fencing, plant roads, and drainage. Pipelines will be installed within existing rights-of-way, using open-cut trenching or boring techniques. Ditch and canal crossings will be bored.

The total estimated project cost is \$16,616,000. The planning, acquisition, and design phases of this project are being funded by the TWDB.

Reviews by Regulatory Agencies and Resulting Conditions

On the Corporation's behalf, Melden and Hunt, Inc. coordinated with the following federal and state regulatory agencies: Texas Parks and Wildlife Department (TPWD), Wildlife Division, Wildlife Habitat Assessment Program; United States Army Corps of Engineers (USACE), Galveston District; Texas Historical Commission (THC); Texas Commission on Environmental Quality (TCEQ), Water Quality Division; and United States Department of the Interior, Fish and Wildlife Service (USFWS), Coastal Ecological Services Field Office. In addition, the Hidalgo County Drainage District No. 1 was given an opportunity to review environmental information about the proposed project, including a project description and project maps, provided by Melden and Hunt, Inc. No adverse comments were received. A summary of the correspondence has been provided below.

United States Army Corps of Engineers, Galveston District

The USACE reviewed the proposed project in accordance with Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act (Project Number SWG-1999-02363). In a letter dated September 19, 2016, the USACE stated that the proposed project site does not contain waters of the United States subject to Section 10 of the Rivers and Harbors Act of 1899 or Section 404 of the Clean Water Act, and therefore, the placement of structures and/or the discharge of dredged and/or fill material on to the project site does not require a Department of the Army permit.

Texas Parks and Wildlife Department, Wildlife Division, Wildlife Habitat Assessment Program

The TPWD reviewed the proposed project and provided a response dated April 4, 2016 (Project Number 36283), with three recommendations for the proposed project regarding federal and state regulations. The TPWD received a written response from the Corporation's environmental consultant dated April 11, 2016 providing responses to the TPWD's initial comments. Based on that response, the TPWD indicated in an email dated September 13, 2016 that all recommendations provided by the TPWD have been adequately addressed. A summary of the response furnished to the TPWD is provided below.

- **Federal Regulations:** Contract documents will include provisions that prohibit the clearing of shrubs or trees during the March 15 to September 15 migratory bird nesting season, to ensure compliance with the Migratory Bird Treaty Act. If vegetation clearing and/or construction in a potential bird nesting area must be scheduled during the March to September nesting season, contract documents will require that the vegetation area to be impacted be surveyed for active nests by a qualified biologist. If nests are observed during surveys, the contract documents will require that a 150-foot buffer of vegetation remain around the nests until the young have fledged or the nest is abandoned.
- **State Regulations:**
 - The contractor will be informed about concerns regarding state-listed species. Contract documents will require that during construction and installation of pipelines, any excavations or trenches that are created are not to be left open overnight. If special circumstances exist such that any excavation cannot be filled at the end of the work day, then the contractor will be required to adequately cover the excavation. Contractors will be informed to always inspect for wildlife that may become trapped in the excavation.
 - Black-spotted newt (*Notophthalmus meridionalis*) and South Texas siren (*Siren* sp. 1), State-listed threatened species (amphibians) – Because these species occur in wet areas, such as ditches and canals, which occur in the project area, various mitigation measures will be employed to avoid aquatic species. Sedimentation and erosion control measures will be included in the contract documents to avoid potential impact to water quality. Material and equipment staging areas will be directed away from aquatic areas to avoid potential spills and leaks. Open cuts will not be used for crossing ditches and canals.

United States Department of the Interior, Fish and Wildlife Service, Coastal Ecological Services Field Office

The USFWS reviewed the proposed project and provided a response dated February 22, 2016 (Consultation Number 02ETTXX0-2016-I-0453), with a recommendation for the

proposed project regarding the Migratory Bird Treaty Act. The USFWS indicated that the proposed project complies with section 7(a)(2) of the Endangered Species Act.

A summary of the response furnished to the USFWS in a letter from the applicant's environmental consultant, dated April 12, 2016, is provided below.

Migratory Bird Treaty Act: Contract documents will include provisions that prohibit the clearing of shrubs or trees during the March to August migratory bird nesting season, to fully comply with the Migratory Bird Treaty Act. Contractors will be made aware of the potential of encountering migratory birds (either nesting or wintering) in the proposed project site and be instructed to avoid negatively impacting them. If vegetation clearing and/or construction in a potential bird nesting area must be scheduled during the nesting season, contract documents will require that the vegetation area to be impacted be surveyed for active nests by a qualified biologist. If active nests are observed during surveys, the contract documents will require that a 150-foot buffer of vegetation remain around the nests until the young have fledged or the nest is abandoned.

The EDAP loan is conditioned to read that if threatened or endangered species happen to be encountered during construction, work will cease immediately and the Corporation will notify TWDB staff, TPWD, and the USFWS. Subsequent to notification, mitigation measures will be taken in accordance with the Endangered Species Act of 1973, as amended.

Texas Historical Commission

The THC provided a response dated February 29, 2016 in the form of a "no survey required" stamp (no tracking number provided), indicating that the proposed project may proceed without further coordination.

The EDAP loan is conditioned to read that if archeological sites are discovered during construction, work will cease immediately in that area and the Corporation will notify the THC and the TWDB of the discovery. The THC and the TWDB will then proceed in accordance with the regulations of the Advisory Council on Historic Preservation (36 CFR Part 800) prior to taking any action which would affect the cultural resources.

Local Floodplain Administrator

The Hidalgo County Drainage District No. 1 was given the opportunity to review the proposed project in a letter dated February 16, 2016. According to the response from the Hidalgo County Floodplain Administrator in a letter dated September 27, 2016, the proposed project will likely not impact drainage or other matters related to the flood plain; however, the floodplain administrator advises that proper design guidelines and construction methods be implemented for the proposed improvements to make sure that no fill is added to any areas designated as Flood Zone AE as per Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Community Panel Number 4803340450 Map Revised June 06, 2000 with Letter of Map Revision (LOMR)

dated May 30, 2002.

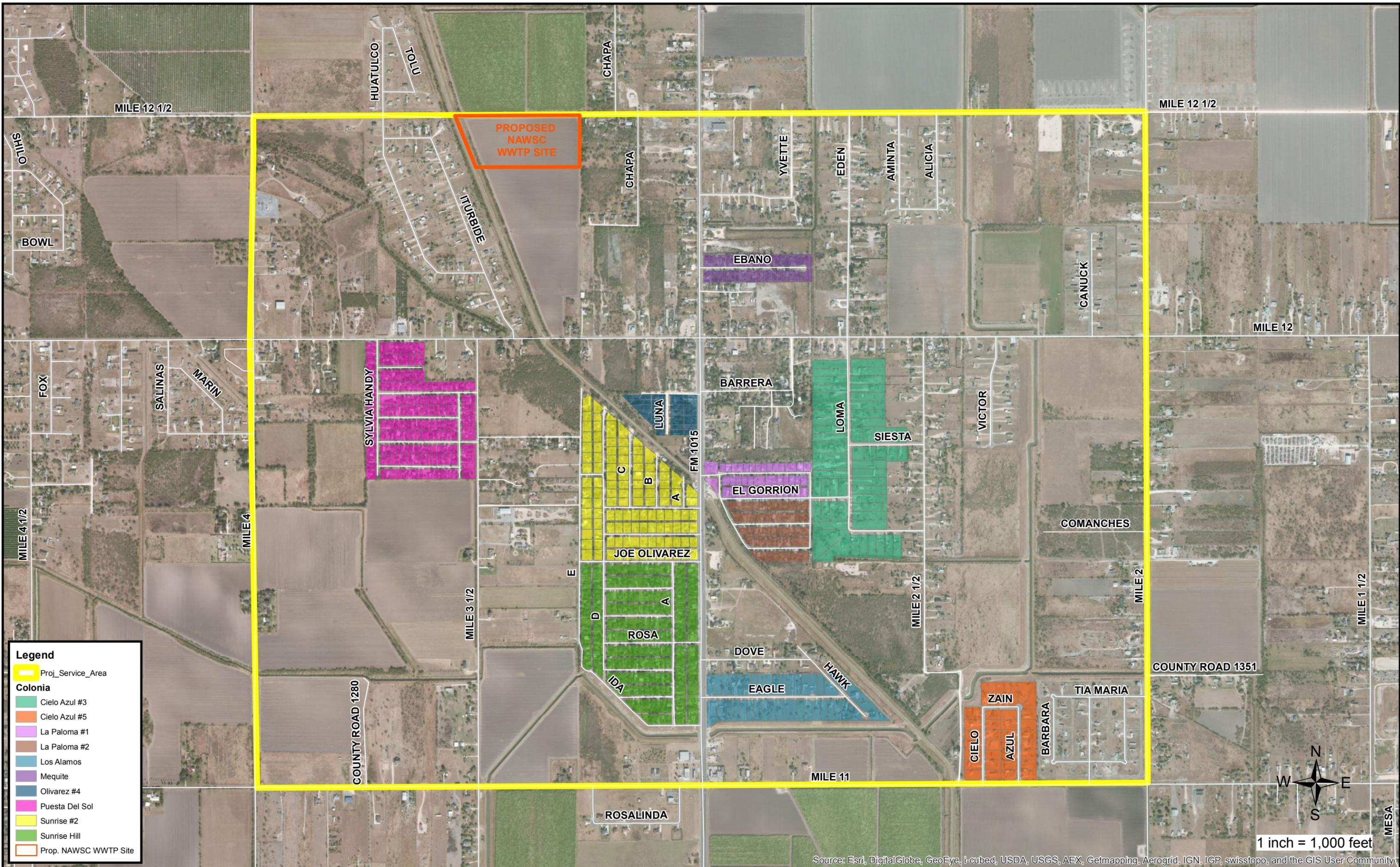
Conditions and Recommendations

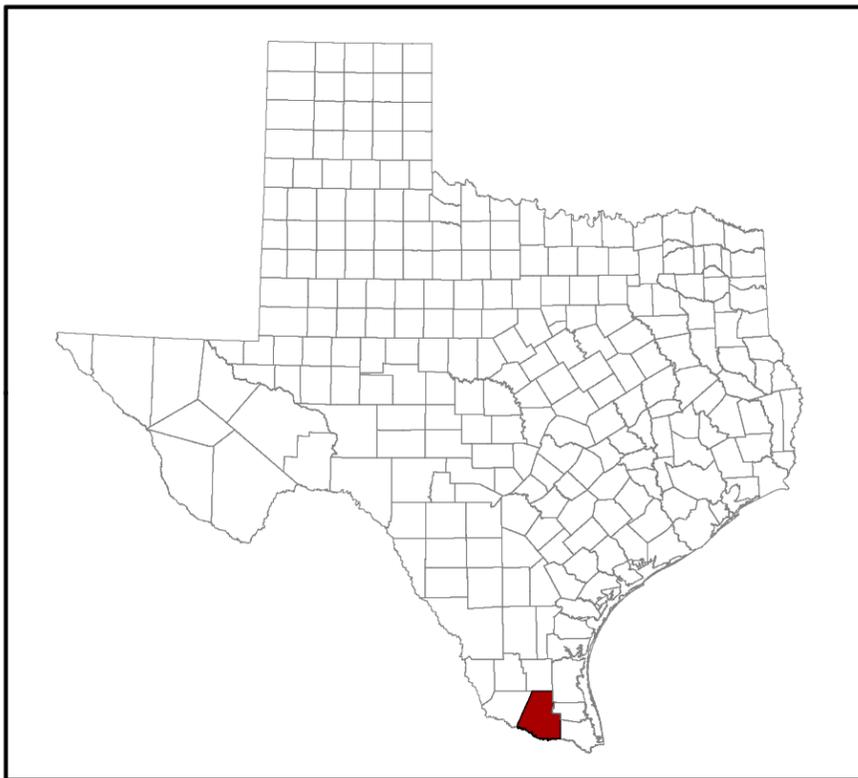
Full consideration has been given to the views and comments of the requisite regulatory agencies and affected persons. Based on a detailed environmental review consistent with 31 TAC § 363.14, the following conditions have been developed in order to ensure that this TWDB-funded project is environmentally sound and will not have any adverse impacts on the quality of the human environment:

- In order to ensure compliance with the Migratory Bird Treaty Act, contract documents will include provisions that prohibit the clearing of shrubs or trees during the March to August migratory bird nesting season. Contractors will be made aware of the potential of encountering migratory birds (either nesting or wintering) in the proposed project site and be instructed to avoid negatively impacting them. If vegetation clearing and/or construction in a potential bird nesting area must be scheduled during the nesting season, contract documents will require that the vegetation area to be impacted be surveyed for active nests by a qualified biologist. If active nests are observed during surveys, the contract documents will require that a 150-foot buffer of vegetation remain around the nests until the young have fledged or the nest is abandoned;
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- Standard emergency condition for the discovery of threatened and endangered species.

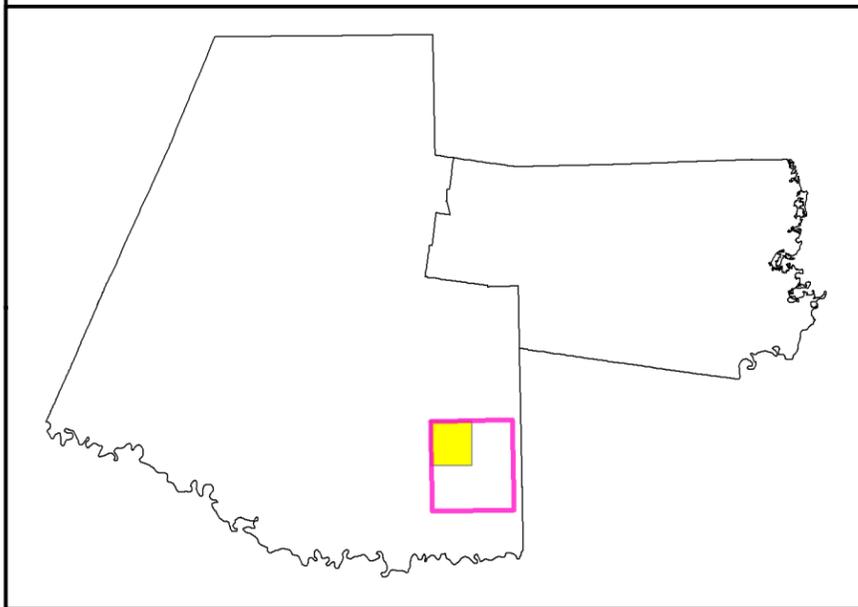
With the addition of these conditions, I recommend that the Executive Administrator find the specified project elements above to be environmentally sound and that design and acquisition funds be released once other requirements are satisfied.

Figure #2 Targeted Subdivisions

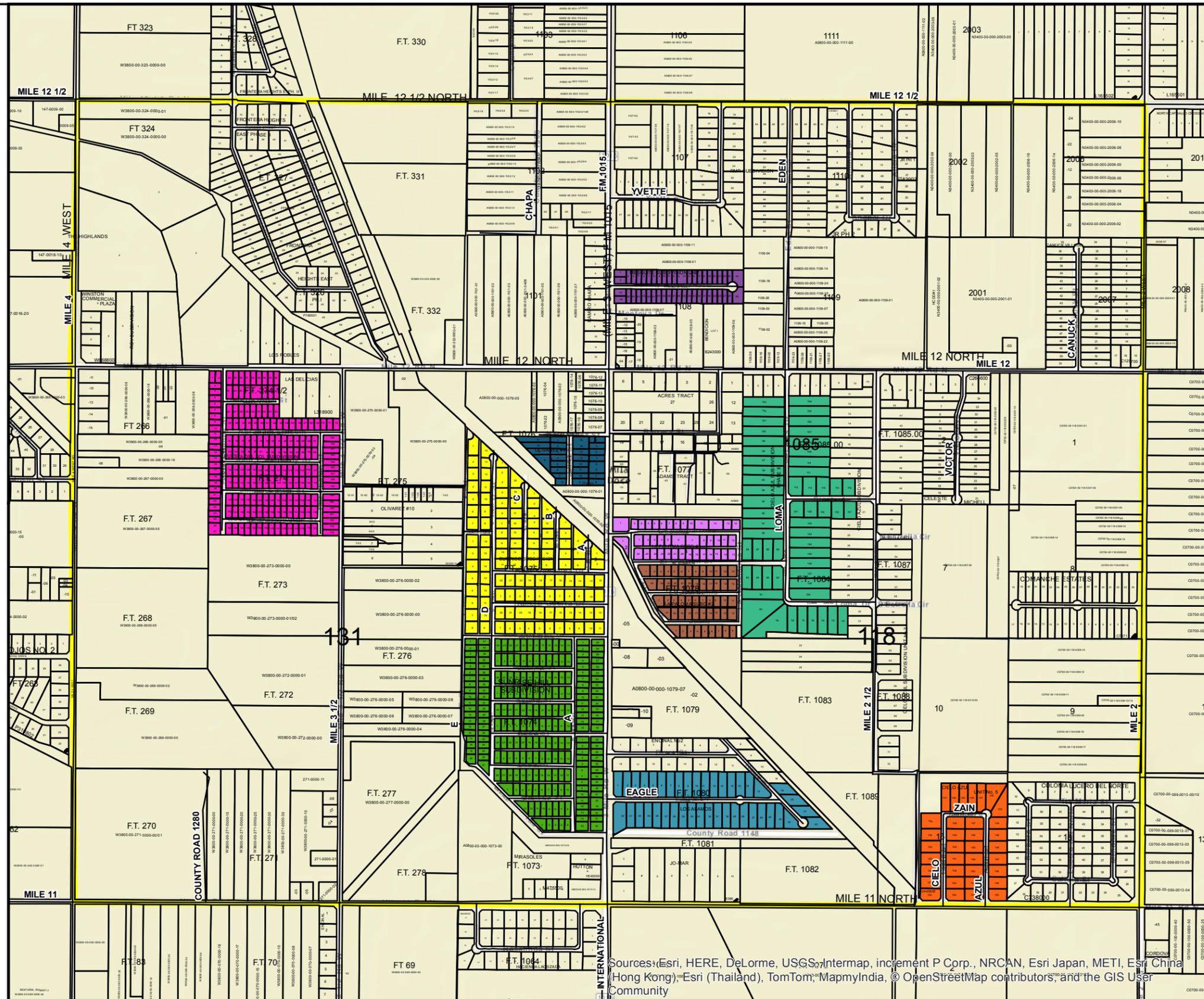




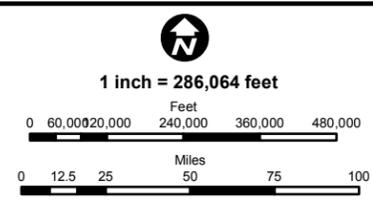
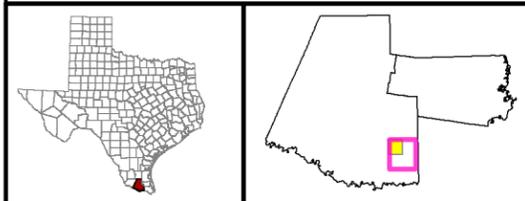
TEXAS



HIDALGO COUNTY



Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community



**North Alamo Water Supply Corporation
North Weslaco EDAP Project**

**Figure #1
Project Location Map**

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