UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

June 17, 2011

FINDING OF NO SIGNIFICANT IMPACT

TO ALL INTERESTED GOVERNMENT AGENCIES AND PUBLIC GROUPS:

In accordance with the environmental review guidelines of the Council on Environmental Quality found at 40 Code of Federal Regulations (CFR) Part 1500, and with the use of the implementing environmental review procedures of the United States Environmental Protection Agency (EPA) found at 40 CFR Part 6 entitled "Procedures for Implementing the Requirements of the Council on Environmental Quality on the National Environmental Policy Act" as guidance, the EPA has performed an environmental review of the following proposed action:

Wastewater Infrastructure Construction Project
Proposed by the City of Brownsville
Located in Cameron County, Texas

Estimated EPA Share: $ 15,837,002
Estimated Local Share: $ 14,162,998

The Fiscal Years 1999 through 2010 Appropriations Acts for the EPA included special Congressional funding for water and wastewater construction projects. The City of Brownsville (City) was selected to receive funding support through these special appropriations for the rehabilitation and expansion of the existing Robindale Wastewater Treatment Plant that serves the northern sector of the City. The City operates two wastewater treatment plants through the Brownsville Public Utilities Board (BPUB) which is the service entity responsible for providing drinking water, wastewater collection and treatment, and electrical services to the City. The Robindale wastewater treatment plant has deteriorated significantly over time, is not capable of meeting future improved water quality standards, and has insufficient capacity to meet future demands from the population expected to reside within the northern portion of the City. The City currently has a population of approximately 199,000 which is expected to increase to 262,000 by the year 2025. The majority of the population increase is expected to be in the portion of the City served by the Robindale treatment plant.

The BPUB is proposing to meet current and future wastewater treatment needs of the City by rehabilitating and expanding the existing Robindale treatment plant to accommodate more stringent future effluent permit discharge limits, and the increased population. The Texas Commission on Environmental Quality renewed the effluent discharge permit for the facility in November 2010, but beginning in October 2013, the plant will have to reduce ammonia from the discharge from the current 12 milligrams per liter (mg/l) limit to 4 mg/l. The plant is not designed to meet the increased water quality limits without modification and upgrading. Also, the plant capacity is not adequate to meet projected demand from an increasing population. The current design treatment capacity is approximately 10 million gallons per day (mgd), but must be increased to 14.5 mgd to meet increased wastewater treatment demand.

The BPUB is proposing to address the increased water quality standards by rehabilitation of the existing plant by converting it from contact stabilization to extended aeration, and to address the need for increased treatment capacity by construction of additional facilities on an adjoining 5-acre tract of land owned by the City and designated for this purpose. The receiving stream will continue to be the Cameron County Drainage Ditch Number 1 which eventually empties into the Brownsville Ship Channel. Upon completion, the proposed project should correct extensive deterioration of the existing equipment, increase overall wastewater treatment capacity, and mitigate the potential for public health risks associated with inadequate treatment and disposal of wastewater. The City will utilize the Congressional funding support in conjunction with local funds to finance the construction of the proposed project.

The environmental review process, which is documented by the enclosed Environmental Assessment, indicates that no potential significant adverse environmental impacts are anticipated from the proposed action. The project individually, cumulatively over time, or in conjunction with other actions is not expected to have a significant adverse effect on the quality of the environment. On that basis, I have determined that the project is not a major federal action significantly affecting the quality of the human environment, and that preparation of an Environmental Impact Statement is not necessary. My preliminary decision is based upon the enclosed Environmental Assessment, a careful review of the Environmental Information Document prepared for the project, the results of the public participation process, and other supporting data which are on file in the office listed below and available for public review upon request. Therefore, I am issuing this preliminary Finding of No Significant Impact pertaining to the project.

Comments regarding my preliminary decision may be submitted for consideration to the attention of the Office of Planning and Coordination (6EN-XP), Environmental Protection Agency, 1445 Ross Avenue, Dallas, Texas 75202-2733. After evaluating any comments received, the EPA will make a final decision. No administrative action will be taken on this preliminary decision for at least 30 calendar days after release of this Finding of No Significant Impact. The preliminary decision and finding will then become final after the 30-day comment period expires if no new significant information is provided to alter this finding.

Responsible Official,

John Blevins
Director
Compliance Assurance and
Enforcement Division

Enclosure

cc: Patricio Ahumada, Jr., Mayor
City of Brownsville

Kevin Ward, Executive Administrator
Texas Water Development Board

ENVIRONMENTAL ASSESSMENT

WASTEWATER INFRASTRUCTURE CONSTRUCTION PROJECT
Proposed by the
CITY of BROWNSVILLE
Located in CAMERON COUNTY, TEXAS

BACKGROUND

The Fiscal Years 1999 through 2010 Appropriations Acts for the EPA included special Congressional funding for water and wastewater construction projects. The City of Brownsville (City) was selected to receive funding support through these special appropriations for the rehabilitation and expansion of the existing Robindale Wastewater Treatment Plant that serves the northern sector of the City. The City operates two wastewater treatment plants through the Brownsville Public Utilities Board (BPUB) which is the service entity responsible for providing drinking water, wastewater collection and treatment, and electrical services to the City. The Robindale wastewater treatment plant has deteriorated significantly over time, is not capable of meeting future improved water quality standards, and has insufficient capacity to meet future demands from the population expected to reside within the northern portion of the City. The City currently has a population of approximately 199,000 which is expected to increase to 262,000 by the year 2025. The majority of the population increase in the area is expected to be in the portion of the City served by the Robindale treatment plant.

The BPUB is proposing to meet current and future wastewater treatment needs of the City by rehabilitating and expanding the existing Robindale treatment plant to accommodate more stringent future effluent permit discharge limits, and the increased population. The Texas Commission on Environmental Quality (TCEQ) renewed the effluent discharge permit for the facility in November 2010, but beginning in October 2013, the plant will have to reduce ammonia from the discharge from the current 12 milligrams per liter (mg/l) limit to 4 mg/l. The plant is not designed to meet the increased water quality limits without modification and upgrading. Also, the plant capacity is not adequate to meet projected demand from an increasing population. The current design treatment capacity is approximately 10 million gallons per day (mgd), but must be increased to 14.5 mgd to meet increased wastewater treatment demand.

The City collects wastewater from the residents of Brownsville and a portion of nearby El Jardin Water Supply Corporation. The Robindale wastewater treatment plant was originally constructed in 1980 on a 47-acre tract of land, and was expanded in the mid 1990s by constructing a new parallel treatment facility. At that time, the original treatment facilities were not renovated and are now experiencing extreme deterioration due to age. The City currently operates approximately 621 miles of wastewater collection line overall, with 350 miles of line connected to the Robindale plant. Additionally, the collection system contains

170 wastewater lift stations, with 95 connected to the Robindale plant. Over the years, various components of the facilities have deteriorated to the point that now major rehabilitation is necessary in order to keep the facility in operation. Because deterioration is such a problem, rehabilitation and expansion of the current facilities are necessary to prevent a public health hazard associated with inadequate treatment of the City's wastewater that would be caused without implementation of the proposed project.

The BPUB is proposing to address the increased water quality standards by rehabilitation of the existing plant by converting it from contact stabilization to extended aeration, and to address the need for increased treatment capacity by construction of additional facilities on an adjoining 5-acre tract of land owned by the City and designated for this purpose. The receiving stream will continue to be the Cameron County Drainage Ditch Number 1 which eventually empties into the Brownsville Ship Channel. Upon completion, the proposed project should correct extensive deterioration of the existing equipment, increase overall wastewater treatment capacity, and mitigate the potential for public health risks associated with inadequate treatment and disposal of wastewater. The City will utilize the Congressional funding support in conjunction with local funds to finance the construction of the proposed project. The project planning area is shown on the map enclosed as Figures 1 and 2.

The proposed project is considered to be a federal action requiring compliance with the National Environmental Policy Act (NEPA). In accordance with the environmental review requirements of the Council on Environmental Quality found at 40 Code of Federal Regulations (CFR) Part 1500, and with the use of the Environmental Protection Agency's (EPA) implementing regulations found at 40 CFR Part 6 entitled "Procedures for Implementing the Requirements of the Council on Environmental Quality on the National Environmental Policy Act" as guidance, the EPA is preparing this Environmental Assessment to assist in determining the environmental impacts of the proposed action, and in evaluating whether an Environmental Impact Statement or a Finding of No Significant Impact will be prepared for the proposed project.

PROJECT DESCRIPTION

The City has proposed the construction and installation of the following rehabilitation and expansion components for the Robindale wastewater treatment facility:

1. Construction of one new aeration basin and two new final clarifiers;
2. Construction of new headworks;
3. Construction of new piping from new headworks to all three treatment trains;
4. Extension of influent lines from existing headworks to new headworks;
5. Demolition of the old existing headworks;
6. Modifications to Train A: rehabilitation of digester, conversion of stabilization and contact basins to a 4 mgd aeration basin, conversion of clarifiers to a 4 mgd aeration basin, and rehabilitation of chlorine contact basins;

7. Modifications to Train B: rehabilitation of digester facilities, conversion of stabilization and contact basins to a 4 mgd aeration basin, and rehabilitation of clarifier mechanisms, and
8. Construction of new chlorination and sulfur dioxide facilities.

The proposed improvements will provide safe and dependable wastewater treatment facilities to serve the needs of the citizens living in the area. All construction activities will occur either within the footprint of the existing Robindale plant, or the adjoining 5-acre site owned by the City and designated for this project. The proposed project will not displace any existing citizen, home or business.

ALTERNATIVES TO THE PROPOSED PROJECT

The funding recipient evaluated and considered a range of various alternatives to address the infrastructure needs of the area. Important factors influencing the evaluation of the processes and their recommended solutions include environmental acceptability, overall costs, availability of land for the intended uses, maximum reuse of existing facilities when applicable, operation and maintenance costs, system reliability, accommodation of future expansion needs, and public acceptance. A complete description of the alternatives is provided in the Environmental Information Document (EID) provided by the funding recipient for the project.

ENVIRONMENTAL SETTING

The City of Brownsville is located at the far southern tip of the state on the Texas/Mexico border approximately 20 miles east of the Gulf of Mexico, and is the county seat for Cameron County. The existing Robindale wastewater treatment plant was originally constructed in 1980 on a 47-acre tract of land in the northern part of the City, is within the corporate city limits, and is located approximately four miles northeast of downtown Brownsville. The plant was expanded in the mid 1990s by constructing a new parallel treatment system, but the original facilities were not renovated at that time, and are now in various stages of major deterioration. The City owns the adjoining 5-acre tract of land, and has designated it for the proposed plant expansion. The topography of the tract is relatively flat, but does contain several areas of undulation associated with soils excavation associated with grading and construction of the expansion.

The surrounding area is characterized by agricultural land, residential properties, a few commercial facilities and a secondary school approximately 2,000 feet to the northeast. The Cameron County Drainage District maintains a drainage ditch that flows northwest to southeast immediately south of the plant, and is currently the receiving stream for effluent from the plant. This stream will continue to be the receiving stream after the plant is expanded. The local environment will be enhanced since the effluent being discharged into the canal will be of improved water quality.

The climate in the area is temperate tropical with an annual mean temperature of 74 degrees Fahrenheit. Summers are hot and humid with occasional heavy rains; winters are temperate with only occasional freezes. Annual precipitation is approximately 26 inches of rainfall, with the major peak in September and a secondary peak in May and June. Relative daytime humidity ranges from around 88 percent during morning hours to 60 percent in the afternoon.

Soils in the area may contain important farmlands which could potentially be used for food production, but presently the site is open pastureland and mowed regularly. Even though the soils may be rated as important farmlands, they are rated at a level that will not need further consideration and can be used for the intended purpose since the land has already been converted to urban uses. There are no wilderness areas, national landmarks or monuments, or wild and scenic rivers within or immediately adjacent to the project area. A more detailed description of the local environment is provided in the EID developed for the project.

IMPACTS OF THE PROPOSED PROJECT

The proposed project was analyzed to identify potential short-term, long-term, and cumulative impacts on the environment. There are no anticipated significant adverse environmental impacts associated with the proposed action that cannot be reduced to acceptable levels as identified and discussed below.

1. Biological Resources Including Threatened and Endangered Species: Based upon initial coordination with the United States Fish and Wildlife Service (USFWS) and the Texas Department of Parks and Wildlife (TDPW), construction of the proposed project should not have significant adverse impacts to biological resources. The site of the original Robindale treatment plant continues to be used for that purpose, and the adjoining 5-acre expansion site for the planned expansion is routinely mowed for weed control which likely does not provide for the opportunity for establishment of protected plant or animal species. The entire area was inspected by a biologist in February 2011, and no protected species were encountered. Therefore, the USFWS has stated that the proposed project will have no adverse effect on species protected at the federal level. The TDPW has stated that the project is not likely to adversely affect species protected at the state level since they are likely absent from the cleared area. However, the TDPW also stated that several species of plants and animals can still occur in disturbed areas on or adjacent to the expansion site, and has recommended that contractors be informed of the possibility of encountering protected species at any time, and that TDPW be notified if any are encountered. The TDPW has also recommended that best management engineering and construction practices be implemented to minimize impacts to overall natural resources. The funding recipient is responsible for continued coordination with the USFWS and the TDPW to insure protection of any protected animal and plant species that may be discovered during actual construction, including their protected habitat. Further, the funding recipient is responsible for compliance with any recommendations made by either the USFWS or the TDPW. The funding is contingent upon compliance with these requirements.

2. Cultural/Historic Resources: Based upon coordination with the State Historic Preservation Officer (SHPO), construction of the proposed project should not have significant adverse impacts to archaeological, historical, architectural, or cultural resources since these protected resources are not known to occur in the project area. However, 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 SHPO of the discovery. Any such resources discovered will be evaluated in accordance with the requirements of 36 CFR Part 800, and appropriate mitigation measures developed and implemented, as needed, in consultation with the SHPO before construction in the area is allowed to continue. The funding is contingent upon compliance with these requirements.

3. Floodplain: Based upon coordination with the Federal Emergency Management Agency and the Texas Water Development Board, the City is a participant in the National Flood Insurance Program and has implemented the appropriate Flood Damage Prevention Ordinance. Therefore, the funding recipient was required to coordinate with the local Floodplain Administrator (FA) for review, and must complete any permit requirements prior to construction of the proposed project. The required initial coordination with the FA has been completed, and that office stated they do not have specific comments about the project. Compliance with any requirements imposed by the FA prior to construction activities should insure that there will be no significant impacts to the floodplain from the proposed project. The funding recipient is responsible for continued coordination with the FA during actual construction activities. The funding is contingent upon compliance with these requirements.

4. Wetlands: Based upon coordination with the United States Army Corps of Engineers (COE), construction of the proposed project will not require the issuance of a project-specific construction permit under Section 404 of the Clean Water Act or Section 10 of the Rivers and Harbors Act to protect any wetlands and jurisdictional waters of the United States that may be present. The funding recipient is responsible for continued coordination with the COE, and must complete any subsequent permitting process prior to the initiation of actual construction activities. Compliance with the permit should insure that construction of the proposed project should not have significant adverse impacts to designated wetlands within the project construction area. The funding is contingent upon compliance with these requirements.

In order to further protect the natural beneficial functions of the floodplain and wetlands, and to minimize the potential flood hazards to life and property, the construction funding is conditioned to read:

a. The recipient agrees not to collect or treat wastewater generated by new development in the floodplain or wetlands by the project facilities for a period of 50 years from the date of the environmental assessment related to this project. This restriction does not apply to development in the floodplain or wetlands which existed prior to that date;

b. The recipient agrees to adopt and enforce suitable ordinances and implementing procedures for effective local administration of this floodplain and wetlands service area restriction. On application of the recipient's governing body and after considering all relevant information on a proposed development's effects on the natural functions and values of the affected floodplain and wetlands, the EPA Regional Administrator may waive the service area restriction in individual cases; and

c. EPA and the recipient intend that this floodplain and wetlands service area restriction shall benefit any person, organization, or entity possessing an interest in preservation of the natural environment in the 100-year floodplain and wetlands subject to this restriction. Any such beneficiary may seek enforcement of the restriction against the recipient or its successor in a court of competent jurisdiction, if notice of the intent to seek enforcement is first given to the recipient and the EPA Region 6, and neither entity initiates corrective action within 90 days of receiving such notice.

5. Surface Water Resources: Based upon initial coordination with the EPA Region 6 Water Quality Protection Division, the TCEQ, the International Boundary and Water Commission and the National Park Service, construction of the proposed project should not have significant adverse impacts to protected surface water resources. There will be no discharge into any waters which have been designated as a wild and scenic river. Since the proposed project will disturb in excess of one acre of land, the funding recipient must comply with the Texas Storm Water Construction General Permit which also requires the preparation and implementation of a Storm Water Pollution Prevention Plan. The funding recipient is responsible for continued coordination with the TCEQ, and must complete any subsequent permitting process prior to the initiation of actual construction activities. The funding is contingent upon compliance with these requirements.

6. Ground Water Resources: Based upon initial coordination with the EPA Region 6 Sole Source Aquifer Program within the Ground Water/UIC Section, the TCEQ and the Brownsville Irrigation District, construction of the proposed project should not have significant adverse impacts to protected ground water resources since the project area is not located over a designated sole source aquifer. The funding recipient is responsible for continued coordination with the TCEQ, and must complete any subsequent permitting process prior to the initiation of actual construction activities. The funding is contingent upon compliance with these requirements.

7. Prime and Unique Farmlands: Based upon coordination with the Natural Resource Conservation Service (NRCS), construction of the proposed project should not have significant adverse impacts to prime or unique farmlands. The NRCS stated that the 5-acre expansion area may contain important farmland soils, but since the land has already been converted to urban uses, the property is excluded from review under the Farmland Protection Policy Act. The NRCS has recommended the use of accepted erosion control methods during actual construction activities, and to replace topsoil as the surface layer when backfilling trenches. The funding recipient is responsible for continued coordination with the NRCS, and must comply with NRCS recommendations during construction activities. The funding is contingent upon compliance with these requirements.

8. Air Quality: Based upon coordination with the TCEQ, construction of the proposed project should not have significant adverse impacts to air quality since the project is located in an area which is in compliance with the National Ambient Air Quality Standards (NAAQS) for all criteria air pollutants. Therefore, general conformity rules under the air State Implementation Plan do not apply. To further insure compliance with NAAQS standards, all vehicles and motorized equipment used in construction must comply with regulations regarding the control of air pollution from mobile sources. The funding recipient is responsible for continued coordination with the TCEQ, and must complete any subsequent permitting process prior to the initiation of actual construction activities. The funding is contingent upon compliance with these requirements.

9. Environmental Justice: The project was reviewed to ensure that construction will be conducted in an appropriate manner so that all persons and populations are served equally by the infrastructure improvements. Based upon the results of an evaluation to rank the potential environmental impacts to local communities using a computer-assisted mathematical formula, including Geographical Information System maps and census demographic data, no persons or populations will be discriminated against or denied the benefits of the proposed project. Since all persons and populations will be served equally by the project, there will be no adverse impacts that are considered disproportionate to any particular portion of the population.

10. Coastal and Barrier Resources: Based upon coordination with the Texas General Land Office (GLO), construction of the proposed project should not have significant adverse impacts to coastal and barrier resources. The project is located in a county adjacent to the Gulf of Mexico, and therefore within the jurisdictional boundary of the Texas Coastal Management Program under the GLO. The Texas GLO is responsible for conducting a federal consistency review of project plans and specifications to insure consistency with the goals and policies of the state coastal management program. The results of the review determined that the project will not have an adverse impact on coastal natural resource areas in the coastal zone. The funding recipient is responsible for continued coordination with the GLO. The funding is contingent upon compliance with these requirements.

11. Cumulative Impacts: Potential cumulative impacts would be those impacts to the local environment that would result from the proposed project in combination with other ongoing actions, and those reasonably foreseeable future actions. No other major construction activity is being conducted presently or planned for the immediate future. The proposed project will not individually nor cumulatively over time have a negative impact on the quality of the human or natural environment. To the contrary, improved infrastructure will have a positive environmental effect by enhancing public health and protecting the natural environment from continued contamination and degradation.

DOCUMENTATION, COORDINATION, AND PUBLIC PARTICIPATION

A public hearing for the proposed project was held on January 19, 2011, in the Board Room of the offices for the Brownsville Public Utilities Board located at 1425 Robinhood Drive in Brownsville. The purpose of the meeting was to inform the public of the proposed project, to identify any concerns, and to request public participation in the development of the project. There were no adverse public comments received during the hearing specific to construction of the proposed project, but several citizens expressed concerns about odors. The BPUB stated that the control of odors will be a priority for the proposed project, and will be addressed during the actual design of the expanded and new facilities.

During the process of conducting the environmental review and preparing this Environmental Assessment for the project, coordination has been conducted with all required resource protection agencies and offices to solicit and incorporate their initial review and comments. Copies of this Environmental Assessment will be provided to those agencies and offices for their final review and comments. Other interested parties may request a copy of the Environmental Assessment in writing from the EPA, Office of Planning and Coordination (6EN-XP), 1445 Ross Avenue, Dallas, Texas 75202-2733.

References

1. Environmental Information Document, Robindale Wastewater Treatment Plant Rehabilitation and Expansion, Brownsville Public Utilities Board, March 2011.

RECOMMENDATION

Based upon completion of this Environmental Assessment, and a detailed review of the Environmental Information Document for the project, it has been determined that construction activities are considered to be environmentally sound. Therefore, it is recommended that a Finding of No Significant Impact be issued.