



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6

1445 ROSS AVENUE, SUITE 1200

DALLAS TEXAS 75202-2733

May 16, 1998

**FINDING OF NO SIGNIFICANT IMPACT**

**To Interested Agencies, Officials, Public Groups and Individuals,**

The U.S. Environmental Protection Agency (EPA) has performed an environmental assessment in accordance with the procedures at 40 CFR Part 6, "*Procedures for Implementing the Requirements of the Council on Environmental Quality on the National Environmental Policy Act,*" for the following proposed action:

**Proposed Action:** Awarding of U.S. Environmental Protection Agency grant funds from the Border Environmental Infrastructure Fund for construction of the city of Del Rio's Water Treatment Plant Project.

**Applicant:** City of Del Rio, Val Verde County, Texas

Total Project Cost: \$ 40,250,000.00

(A combination of revenue bonds and federal grants are proposed to fund the project. Specific funding amounts are unknown at this time.)

**Proposed Project.** The city of Del Rio is located on the U.S./Mexico border in southeastern Val Verde County, Texas. The city proposes to construct a new 26 million gallon per day (MGD) water treatment plant (WTP), replace the Bedell water storage and raw water pumping facilities, and install a new distribution system pump and transfer facilities. Structures associated with the project include the administration building, the filtration building, chlorination facilities, and the disinfection clearwell structure. Two water storage tanks will be constructed at the Bedell site. A pump building will be constructed at each of the two springs. The existing raw water pump and disinfection facilities at the springs will be demolished, as will the three existing storage tanks at the Bedell site. Both areas will be cleaned up and restored after completion of construction.

The WTP will be constructed adjacent to the raw water pumping facility at San Felipe Springs. The site is accessible by paved city streets and has potable water, electric power, telephone, and natural gas supply services. The city plans to extend the sanitary sewer collection system to the site. The raw water transmission pipeline will originate at the springs, go across the San Felipe Golf Course located west of the WTP, follow along the northern boundary of the Del Rio Golf Course, run parallel to Hermann Drive, then along North Hill Drive to the new Bedell water storage tank site. The new storage tanks will be located northwest of the existing tanks, east of Bedell Avenue at Barbara Way.

**Finding.** The EPA has performed an environmental assessment (EA) of the Environmental Information Document (EID) prepared for the funding of the project and finds that no significant impacts have been identified to require an increase in the scope of the assessment. The majority of the funding is expected to be provided by municipal water utility revenue bonds. However, because of the large capital expenditures required by this project and to reduce the impact on the rate structure and service subscribers, the city of Del Rio is seeking construction grant funds and rate subsidy grant funds from the Border Environmental Infrastructure Fund (BEIF) of the EPA.

On the basis of this EA, the Regional Administrator has determined that awarding of grant funds assistance to the city for the project will not result in significant adverse impacts on the human environment and that an Environmental Impact Statement (EIS) is not warranted. Comments regarding this determination not to prepare an EIS will be accepted during the thirty (30) day period following the public notice of this FNSI. Address all comments and requests for review of the administrative record supporting this determination to:

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**ENVIRONMENTAL ASSESSMENT**  
**FOR THE AWARDING OF**  
**U.S. ENVIRONMENTAL PROTECTION AGENCY**  
**GRANT FUNDS**  
**FROM THE BORDER ENVIRONMENTAL INFRASTRUCTURE FUND**  
**FOR THE WATER TREATMENT PLANT PROJECT**  
**FOR THE CITY OF DEL RIO, VAL VERDE COUNTY, TEXAS**

United States Environmental Protection Agency  
1445 Ross Avenue  
Dallas, Texas 75202

Approved:     /S/         4/20/98    

Jerry Clifford  
Acting Regional Administrator

Date

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UNITED STATES  
ENVIRONMENTAL PROTECTION AGENCY  
REGION 6  
OFFICE OF PLANNING AND COORDINATION  
COMPLIANCE ASSURANCE & ENFORCEMENT DIVISION

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NADBank GRANT FUNDING

## 1.0 PURPOSE AND NEED FOR ACTION

### 1.1 General Information.

**Proposed Action:** Awarding of U.S. Environmental Protection Agency (EPA) grant funds from the Border Environmental Infrastructure Fund for construction of the city of Del Rio's Water Treatment Plant Project.

**Applicant:** City of Del Rio, Val Verde County, Texas

Total Project Cost: \$ 40,250,000.00

(A combination of revenue bonds and federal grants are proposed to fund the project. Specific funding amounts are unknown at this time.)

**1.2 Proposed Project.** The city of Del Rio is located on the U.S./Mexico border in southeastern Val Verde County, Texas. The city proposes to construct a new 26 million gallon per day (MGD) water treatment plant (WTP), replace the Bedell water storage and raw water pumping facilities, and install a new distribution system pump and transfer facilities. Structures associated with the project include the administration building, the filtration building, chlorination facilities, and the disinfection clearwell structure. Two water storage tanks will be constructed at the Bedell site. A pump building will be constructed at each of the two springs. The existing raw water pump and disinfection facilities at the springs will be demolished, as will the three existing storage tanks at the Bedell site. Both areas will be cleaned up and restored after completion of construction.

The WTP will be constructed adjacent to the raw water pumping facility at San Felipe Springs. The site is accessible by paved city streets and has potable water, electric power, telephone, and natural gas supply services. The city plans to extend the sanitary sewer collection system to the site. The raw water transmission pipeline will originate at the springs, go across the San Felipe Golf Course located west of the WTP, follow along the northern boundary of the Del Rio Golf Course, run parallel to Hermann Drive, then along North Hill Drive to the new Bedell water storage tank site. The new storage tanks will be located northwest of the existing tanks, east of Bedell Avenue at Barbara Way.

**1.3 Recommendation.** The EPA has performed an environmental assessment (EA) of the Environmental Information Document (EID) prepared for the funding of the project and finds that no significant impacts have been identified to require an increase in the scope of the assessment. The majority of the funding is expected to be provided by municipal water utility revenue bonds. However, because of the large capital expenditures required by this project, and to reduce the impact on the rate structure and service subscribers, the city of Del Rio is seeking construction grant funds and rate subsidy grant funds from the Border Environmental

Infrastructure Fund (BEIF) of the EPA.

On the basis of this EA, the Regional Administrator has determined that awarding of grant funds assistance to the city for the project will not result in significant adverse impacts on the human environment and that an Environmental Impact Statement (EIS) is not warranted. The proposed project is consistent with the EPA-approved Water Quality Management Plan.

## **2.0 ALTERNATIVES.**

### **2.1 Alternatives Available to the EPA.**

Approve the Grant Funding for the Project as Proposed. EPA can recommend approval of the grant funding for the proposed purpose.

Grant Funding for a Modified Project. Information received during the EA process could result in the identification of significant adverse impacts that require modification. Modification of the project to mitigate the impacts may enable the EPA to recommend approval of the grant funding.

No Action. A determination that the project as proposed could result in potentially significant adverse impacts to the environment that cannot be satisfactorily mitigated would preclude a recommendation of approval of the grant funding. An EIS would then be recommended to evaluate the potentially significant impacts. The EIS process includes a scoping meeting to identify critical facts and issues, a Draft EIS, a public comment period on the Draft EIS, a public hearing on the Draft EIS, the Final EIS, a public comment period on the Final EIS, and a Record of Decision.

### **2.2 Alternatives Considered by the Applicant.**

Membrane Filtration. Membrane filtration was selected as the best available technology based on its ability to deliver high quality drinking water under all anticipated raw water conditions, its ability to support future growth, and its ability to incorporate the development of potential alternate source waters in the future. The membrane filtration process includes microfiltration or ultrafiltration and includes a pretreatment step to remove large particles, followed by the membrane units, and disinfection. Membrane filtration will not adversely affect water quality of the receiving streams. Water will be pumped from the springs and backwash waste from the membrane filters will be returned to San Felipe Creek. The backwash will only consist of dechlorinated potable water and a concentrated amount of particulates filtered from the raw water. Further, the proposed constructed wetland system prior to discharge is expected to remove suspended solids from the stream to a level lower than the natural conditions, representing a total net environmental improvement. The impact of the returned suspended solids on the creek is expected to be minimal.

Conventional Treatment. The conventional treatment process is applicable to a wide range of raw water qualities. Typically, it includes the addition of a coagulant in a rapid mix step,

followed by flocculation, sedimentation, media filtration, and disinfection. It also could include the addition of polymers prior to filtration. The conventional treatment process can present a significant potential for degradation of water quality. This process may be taxed by the wide range in the levels of turbidity of the raw water from the springs and may require expansion of the proposed site due to the size requirements of the sedimentation and filtration units. Conventional treatment was not selected.

Direct Filtration. The direct filtration process is applicable only to waters with low turbidity and is a modification of the conventional treatment process. Direct filtration includes the addition of a coagulant in a rapid mix step, followed by flocculation, filtration, and disinfection. The process eliminates the sedimentation step and could include the addition of polymers prior to filtration. As with conventional treatment, direct filtration may have an adverse effect on the water quality of the receiving stream and was not selected.

### **3.0 AFFECTED ENVIRONMENT AND PREDICTED ENVIRONMENTAL IMPACTS**

#### **3.1 Land Resources.**

Site and Land Use. The site proposed for construction of the project is owned and used by the Texas Department of Transportation (TxDOT) as an equipment and materials storage area. The vacant portion of the site adjacent to Jap Lowe Drive was previously owned by the San Felipe Independent School District and is accessible by existing paved city streets. The site has potable water, electric power, telephone, and natural gas supply services, and the city plans to extend sanitary sewer collection service to the site.

The land, as the general surrounding area, is currently zoned “R-S” (Residential Single-Family), but is being used under a “grandfathered” Industrial Use for material storage by TxDOT. The grandfathered industrial use would continue with the construction of the WTP. The proposed water storage tank site abuts the existing Bedell water storage tanks and is currently vacant. The land is privately owned and is zoned R-220, Estate Residential Single Family District, which allows for use of the land for the intended purposes. The proposed Bedell transmission line route runs parallel to single family residential areas located to the south and west of the site, and crosses vacant privately-owned land to the north and east. This land is also R-S and R-220. There is a small neighborhood park located adjacent to the route at approximately its midpoint. The San Felipe Springs Country Club and Golf Course occupies the land to the northwest and west of the proposed WTP site. The historic San Felipe Springs area is surrounded by the golf course. South of the proposed WTP site, across U.S. Highway 90 (US90), is the Moore Park recreational area which is open to the public for swimming and other recreational uses.

Transportation. Construction and operation of the proposed WTP will require access from US 90 and San Felipe Springs Road. Operation of the WTP will allow automobile traffic from Jap Lowe Drive; however, truck traffic for supplies and equipment delivery, will only be permitted from San Felipe Springs Road to avoid construction traffic congestion with traffic from the

elementary school traffic.

Construction and operation of the Bedell Water Storage Tanks will require access from Bedell Avenue and Barbara Way. Trenching and backfill of the finished water transmission line will require access from San Felipe Springs Road, Hermann Drive, and Barbara Way as well as from adjacent properties that line the route from the WTP site to the Bedell water storage tanks site. Traffic plans will be developed to control the flow of vehicles during construction.

Visual Aesthetics. Design and construction of the proposed project will take into consideration the visual and aesthetics of the area. Project pipe routing improvements will include raw water transmission lines from the springs to the treatment facility at the WTP site, and finished water transmission lines to the new water storage tanks. Piping construction areas will be returned to the existing condition after construction.

**3.2 Water Resources.** The city's primary drinking water-supply source is the artesian San Felipe Springs located on the east side of the city within the city limits. The normally clear springs have experienced elevated levels of turbidity, usually following a significant rainfall event in the contributing watershed. As a result, in May 1995, the Texas Natural Resource Conservation Commission (TNRCC) classified the springs as "Ground water Under the Direct Influence of Surface Water," requiring treatment of the ground water equivalent to that required for surface water treatment facilities, specifically, filtration and disinfection.

Water from the San Felipe Springs was evaluated based on historic water quality data and on sampling conducted at the springs. Results of these evaluations confirm the normally high raw water quality of the springs and provide a better understanding of the character and water quality impacts of periodic turbidity occurrences. The spring water normally has a level of turbidity (Ntu) below 1 Ntu. Levels recorded during high turbidity events have spiked as high as 240 Ntu, usually returning to below 50 Ntu within several hours, and below 5 Ntu within 24 hours.

The water quality from the Rio Grande was also considered for potential use in the future as a long-term alternative source of water for the city. The quality of the water from the Rio Grande water below Amistad Dam, the nearest sampling point to the project site, is fair to moderate according to monthly sampling and analyses by the United States Geological Survey as published in their Texas Water Resources Data for the years 1989 to 1996 (excepting 1991 and 1992).

Membrane filtration, the selected water treatment process, will result in the discharge of process backwash water containing the removed solids, with no chemicals or other constituents being added, to the receiving San Felipe Creek. There is a proposal to create wetlands to remove TSS and slow the rate of discharge to the receiving stream. This alternative provides better stream protection than the other options considered, and provides better opportunities for the enhancement of wildlife habitat and aesthetics, although it may result in slightly higher initial costs. Because of some concerns over the backwash discharge outfalls, three other alternatives

were considered to minimize the potential adverse effects on the receiving streams from the disposal of the residuals. One alternative was the partial submerging of the outfall and using a cast-in-place concrete headwall with blocks to dissipate the discharge energy; another alternative considered the total submerging of the outfall and diffusion of the outflow into the stream; and thirdly, to use a riparian (sidebank) constructed wetland to diffuse the outfall flow and enhance the removal of solids.

A conceptual National Pollutant Discharge Elimination System (NPDES) permit has been proposed which allows continuous discharge of the filter backwash stream to San Felipe Creek, requiring typical effluent quality monitoring under normal conditions, and allowing for a temporary variance from effluent limit requirements during turbidity occurrences. The proposed permit addresses microbial water quality by monitoring fecal coliform bacteria. The microbiologic qualities of the filter backwash waste stream are a concern because downstream uses of San Felipe Creek include public swimming. Low levels of coliform bacteria have been detected recently in the springs, and the concentration of microbials with other solids in the backwash stream require making adequate provisions to address potential public health impacts. Continuous raw water turbidity monitoring at each spring will be used to initiate permit variance conditions. Conceptual discharge permit terms, which are based on a 10 Ntu threshold turbidity level, specify limits on TSS, pH and fecal coliform counts. Waste stream discharge flow rate and volume will also be monitored.

**3.3 Air Quality.** Operation of the WTP will not produce air emissions of significant concern. Minimal emissions may result from periodic operation of emergency generators. Generation of dust and other emissions during construction will also be controlled. Therefore, no air quality concerns are presented by the project.

Noise. Significant sources of noise do not currently exist within the project area. Low localized noise levels result from the pumps at the existing raw water supply point at the springs. Low ambient noise levels result from minimal local traffic that uses San Felipe Springs Road, Jap Lowe Drive, and Barbara Way. Additional ambient noise levels result from heavier traffic on US90, Bedell Avenue, and from train traffic on the adjacent Southern Pacific Railroad which parallel's US90 to the south. Noise will result from construction activity. Construction equipment will be required to be equipped with appropriate noise abatement devices. Noise will be monitored to assure acceptable noise levels that meets Occupational Safety and Health Administration standards. The use of construction equipment during clearing and site preparation will result in a short term increase in noise levels of the area. Following construction, noise levels should return to normal, low ambient levels.

**3.4 Biotic Resources.** Leakage from all three tanks eventually emerges as an above ground, gravity flow channel. Runoff from the site flows into two interconnected, man-made ponds located approximately 200-300 yards northeast of the tanks. Each of the two ponds is approximately 75 feet in diameter and approximately 10-15 feet in depth. The ponds are surrounded with trees and dense vegetation. After construction of the new replacement tanks and the demolition of the existing tanks, the source of water for these ponds will be discontinued.

The land will eventually return to its natural state in this semi-arid region, and the current ecosystem that has developed due to the impoundment of water from this man-made source will likely no longer be sustainable.

### **3.5 Cumulative Impacts and Other Environmental Considerations.**

Wetlands: The WTP site is located in a developed urban area. According to historic information, the area immediately surrounding the San Felipe Springs has reportedly been developed since the late 1600's, well before environmental regulations protected wetlands. In its current condition, the San Felipe Springs site supports jurisdictional wetlands. The National Wetlands Inventory Del Rio NW, NE, SE, and SW quad maps, indicates two distinctive wetlands in the vicinity of the site. One type is characterized as Riverine, lower perennial, unconsolidated bottom, permanently flooded wetland along the San Felipe Creek channel. The other type of wetland is found within and near the springs, and is characterized as a Palustrine, unconsolidated bottom, permanently flooded, diked impounded wetland. The U.S. Corps of Engineers (COE) has issued a Section 404 permit (#199600333) for the stream crossings.

Floodplain: The Federal Emergency Management Agency (FEMA) floodplain maps dated August 15, 1990, show the proposed WTP site and the existing Bedell Tank site to be outside the 100-year flood hazard area of the San Felipe and Cantu Branch Creeks. However, the raw water pump stations will be located within the 100-year floodplain for the San Felipe Creek, and will be designed and built to an elevation above the flood level of 966 mean sea level (MSL).

Wild and Scenic Rivers: No aesthetic, or wild and scenic river resources will be affected by any project related construction activity, or by operation of the proposed WTP. The Amistad National Recreation Area is located approximately nine miles north of the city of Del Rio. According to the National Park Service (NPS), there is a segment of the Rio Grande between Big Bend National Park and the Terrell County/Val Verde County line designated a "wild and scenic river." However, the segment is located upstream of the project area and will not be affected by the construction or operation of the proposed WTP. There are no designated or proposed wild, scenic, or recreational river reaches in the vicinity or downstream of the proposed project area and the NPS is not aware of any Rio Grande segments in the project vicinity that are under consideration as possible wild, scenic, or recreational reaches.

Educational, Parks and Recreational Facilities: The new Dr. Fermin Calderon Elementary School is located east of the proposed WTP site, approximately 250 feet across Jap Lowe Drive. Construction activity related to the project is not expected to affect this facility because of built-in safeguards required by the construction contract documents. The San Felipe Springs Country Club and Golf Course occupies the land to the northwest and west of the proposed WTP site. A portion of the golf course will be disturbed during the trenching, installation, and backfilling operations associated with routing the raw water transmission pipelines from the springs to the WTP. However, this is a privately owned facility for members only, and is not open to the general public. The land is owned by the city of Del Rio and leased to the country club. No compensation will be required. The construction on the golf course will take approximately two

weeks during which time the affected parts of the golf course will be closed. The remainder of the golf course not affected by the construction will remain open. Restoration of the disturbed areas will include backfilling and re-sodding.

Moore Park and San Felipe Creek Walk are areas that may be temporarily affected by the construction activities associated with the project, particularly during construction of the pipeline crossings at San Felipe Creek. The main effect of construction on Moore Park will be a temporary increase in turbidity levels of the water. It may be necessary to temporarily prohibit swimming by the public at Moore Park during the pipe crossing construction. Because swimming is not allowed currently at San Felipe Creek Walk, and since it is located approximately 4,000 feet downstream of the project site, use of that park should not be affected. There is a small city neighborhood park along the Bedell water transmission line route. This area will not be affected by the construction of the proposed project.

Cultural Resources. According to the local Chamber of Commerce, the San Felipe Springs itself is a tourist attraction. This site will be temporarily affected during the construction of the new pump stations and demolition of the current facilities. No other cultural resources are expected to be impacted by construction of the proposed project improvements. Under the Texas Antiquities Preservation Laws, the Texas Historical Commission (THC) will require further investigation of the project area and, based on the results of the investigation, an Antiquities Permit must be issued both for the historical/archeological survey and for the project construction. An archeological and historical survey is currently underway by Prewitt and Associates, Inc., as subconsultant to Malcolm Pirnie, Inc. In the event any cultural resource is uncovered during the construction of the project, on-site activity will be suspended and the THC will be notified and given the opportunity to review the finding.

Endangered Species. A listing maintained by the TNRCC indicates that four threatened or endangered aquatic species are known to occur in surface waters of Val Verde County, which include San Felipe Creek. The Devil's River minnow, *Dionda diaboli*, and the Proserpine shiner, *Notropis proserpinus*, are listed as threatened. The headwater catfish, *ictalurus lupus*, and the Rio Grande darter, *Etheostoma grahami*, are listed as endangered. In addition, the revised Threatened and Endangered Species of Texas listing, published in June 1995, by the U.S. Fish and Wildlife Service (FWS), shows that two endangered plant species are known to occur in Val Verde County. They are the Texas Snowbells, *Styrex texanus*, and the Tobusch Fishhook cactus, *Antrixtrocactus tobuschii*. These two species were not observed by the consultant at any of the project related sites, nor in the proposed Bedell transmission line route.

The FWS also lists two endangered species of birds which are known to range and have their nesting habitat within Val Verde County. They are the blackcapped vireo, *vireo atricapillus*, and the interior least tern, *Sterna antillarum*. The vireo prefers nesting areas with scattered trees and dense clumps of shrubs growing down to ground level, interspersed with open areas of bare ground, rock, or grasses and forbs. The least tern seeks nesting areas on salt flats, broad sandbars, and barren shores along wide, shallow rivers. Neither of these preferred nesting sites was observed at the project related sites nor along the Bedell transmission line route

alignment.

Impacts from the proposed project will be minimal and potentially will occur only during the two-week interval of construction of the pipeline crossing. The contractor will be required to minimize sedimentation during construction of the pipeline crossings. Stormwater runoff from the adjacent construction areas on the remainder of the project will be controlled by an NPDES Stormwater Pollution Prevention Construction Permit.

Socioeconomics. Population wise, Val Verde County is the 68th largest of the 254 counties in Texas, with an estimated population of 40,022 in 1991. Estimates project the 1998 population at 44,388 persons. The median age of the 1990 population was 27.6 years old, compared with the statewide average of 30.9 years and the national average of 35.9 years of age. In 1990, 14 percent of the population in Val Verde County was between the ages of 14 and 21, and 17 percent were 55 or over. Wool and mohair production accounts for a large portion of the county's \$16 million annual agricultural income. Non-agricultural industries include mining, construction, manufacturing, transportation/utilities, wholesale/retail trade, services, finance, and government, with government being the major industry sector at 42 percent, followed by wholesale/retail trade at 28 percent. Laughlin Air Force Base, which is located approximately six miles east of Del Rio, is a major generator of income and employment, employing 1,400 military and 1,800 civilian workers.

According to the Texas Employment Commission, the county civilian labor force numbered 15,087 in March of 1991. The unemployment was 1,942, and increased from 1,803 in March of 1990. The county unemployment rate, which decreased over the three years, was 12.9, 12.7, and 10.9 percent for March 1990, 1992, and 1993, respectively. The statewide unemployment rate was 7.4 percent in March 1992 and 6.7 percent in March 1993. In 1988, the per capita personal income level for the county of Val Verde \$8,875, with a statewide average of \$14,590. By 1990, per capita income had increased to \$10,326 for the county. Based on the 1990 Census, the median household income for families in the county was \$18,042, with a statewide average of \$27,016. The average weekly wage for all covered employment in the county in the first quarter of 1992 was \$294.40, compared with the statewide average of \$445.65.

According to the Census Bureau, the ethnic distribution in Val Verde County in 1990 was approximated as 27 percent white, two percent black, 71 percent Hispanic, and one percent other. Two public schools and six private schools provide education in the area, as well as a number of colleges, trade schools, and adult and continuing education centers. In 1990, 13 percent of the residents age 25 and over in Val Verde County had college degrees (Bachelors) or higher. School districts in the county showed 9,079 average daily attendance in 1990, which represents a decrease from the 1986 school year of 9,355. Public school dropouts in 1991 were down from 272 in 1989 to 219, with a greater number of dropouts occurring after the ninth grade. According to the Uniform Crime Reports, 1,838 total major crimes were reported in the county in 1989. In 1991, this number increased to 2,340, representing an increase of 27 percent in two years. In 1991, major crime in Val Verde County was 75 percent of the Texas average.

Tourists are attracted to the city of Del Rio due to its location on the Mexico border, its proximity to nearby Lake Amistad, and its comfortable climate. The city of Del Rio and the unincorporated areas served by the city have enjoyed an active economic growth since 1995 which has been attributed to North American Free Trade Agreement and other economic factors affecting the border region. The number of building permits and utility hook-ups have increased in the last few years.

Environmental Justice. The project area has a high Environmental Justice (EJ) index. Coupled with the overall beneficial nature of the environmental impacts associated with the project, the high EJ index gives the project area a high priority and makes it a primary target for assistance. The EJ analysis uses U.S. Bureau of the Census data and is based on a comparison of (1) the percentage of minority people, (2) the percentage of economically stressed households making less than \$15,000 a year, and (3) the population within a one-half mile, which is a one square mile area, and a four-mile radius, which is a 50 square mile area, of the site against the corresponding percentages for the state. The one-half mile radius has an EJ index of 60 and consists of 91.4 percent minority and 51.3 percent economically stressed households. The four-mile radius has an EJ index of 24 with a minority percentage of 78.4 and an economically stressed household percentage of 43.5.

Cross-border Impacts. There are no identified potential effects beyond the national boundary. Of significant benefit to the general environment is the improved quality of the drinking water through replacement of the water storage tanks and the treatment process. A beneficial impact is the reduction of potential health vectors and communicable diseases through the elimination of the potential sources of contamination. Another potential by-product of the proposed WTP that may have both adverse and beneficial impacts on the socio-economic fabric of the area is the increased growth and development. Also, the existence of a WTP to provide a dependable water supply to the area may make it more appealing to industry and immigrants tending to an overload the system. However, these same phenomena may make it possible to improve the socio-economic well-being of residents of the area.

Other Factors. Other factors evaluated and determined not to be of significant or relevant consequence include radiation, solid or hazardous waste disposal, man-made hazards, natural hazards, and loading on infrastructures, municipal services and support systems, and health services and facilities. The project is not located within a county bordering the Gulf of Mexico and there are no coastal zone management areas that will be affected by the project.

#### **4.0 OTHER ENVIRONMENTAL ISSUES CONSIDERED BY EPA**

**4.1 Unavoidable Adverse Effects.** Unavoidable impacts from the implementation of this project are a permanent change in land use of approximately 19 acres of urban land from the light industrial land use of the TxDOT storage and maintenance yard to the light industrial land use of the proposed water treatment plant; the conversion of approximately three acres of undeveloped land to municipal land use for the remainder of the WTP site; and the conversion of approximately eight acres of undeveloped land to municipal land use for the new Bedell Street

water storage tanks.

No significant adverse impacts on natural resources such as water and wastewater, community infrastructures such as public schools, emergency medical care, or public safety, recreation or transportation are expected to result from the direct, secondary or cumulative effects of the operational facility.

San Felipe Creek is a minor tributary to the Rio Grande, and water quality changes to the creek will affect the water quality of the Rio Grande. Impacts to the creek and river are limited to the periodic turbidity occurrences. However the proposed discharge permit addresses microbial water quality by disinfecting the backwash waste stream, and dechlorination of the backwash stream prior to discharge protects the stream ecosystem. A conceptual permit has been proposed that would allow a continuous discharge of the backwash stream from membrane to San Felipe Creek, require typical effluent quality monitoring during normal conditions of the springs, and allow for a temporary variance from effluent limit requirements during high turbidity events. Continuous raw water turbidity monitoring at each spring will be used to initiate permit variance conditions. The flow rate and volume of the waste stream discharge will also be monitored.

**4.2 Relationship Between Local, Short Term Use of the Environment and the Maintenance/Enhancement of Long Term Beneficial Uses.** Construction and operation of the proposed system will result in medium to high benefits to the health and economy of the area. In the short term, there will be the inconveniences, the dust and sedimentation resulting from the disturbance of the area for trenching of streets and connecting pathways to the WTP. The long term beneficial uses of the environment will result in a better social and community setting because of the correction of a public health and safety hazard.

The design of the WTP will allow for future expansion from 26 MGD to 39 MGD treatment capacity to ensure a safe, dependable water source for a growing community in future years. In addition, the deteriorated condition of the Bedell concrete water storage tanks has resulted in a significant amount of leakage from all three tanks. The storage tanks have been losing an estimated 250,000 to 500,000 gallons per day (gpd) of drinking water which eventually emerges into an above ground, gravity flow channel. There is an administrative order (AO) from the TNRCC that requires the repair or replacement of the storage tanks because of the risk of contamination through contact of the potable water with ground or surface water. The AO requires that the treatment and storage improvements be in place by May 31, 1999. Replacement of the existing Bedell water storage tanks with new tanks will effectively remove the possibility of catastrophic structural failure of the leaking tanks and will have a direct positive impact toward conservation of limited groundwater resources of the region.

There are no unacceptable short or long term impacts to any sensitive habitat, jurisdictional wetlands, or endangered or threatened species expected as a result of this project. Therefore, only minor mitigation action is proposed. The creation of a riparian wetland will help reduce the potential impacts from the increased backwash solids prior to discharge to the creek.

**4.3 Irreversible and Irretrievable Commitment of Resources.** Irreversibly and irretrievably committed resources associated with the facility are primarily the materials needed for the construction, the fossil fuels and energy resources needed to operate the facility. The proposed WTP will result in an irreversible commitment of approximately 30 acres of land resources to be converted to the infrastructure necessary to serve the community. It is not likely that they would ever be abandoned and therefore this action constitutes an irreversible commitment of land resources.

## **5.0 ENTITIES TO WHOM COPIES OF THIS ENVIRONMENTAL ASSESSMENT WERE MAILED FOR REVIEW AND COMMENT**

Copies of the EA will be provided to the following agencies and to groups, officials, and individuals on the general mailing list for review and comment. Interested parties may obtain copies of the EA by contacting the EPA, Office of Planning and Coordination (6EN-XP), 1445 Ross Avenue, Suite 1200, Dallas, Texas 75202-2733, or telephone 214-665-2258.

U.S. Army Corps of Engineers  
U.S. Fish and Wildlife Service  
U.S. Natural Resources Conservation Service; District Conservationist  
Federal Emergency Management Agency  
International Boundary and Water Commission  
Texas Water Development Board  
Texas Parks and Wildlife Department  
Texas Historical Commission, State Historical Preservation Officer  
Texas Natural Resource Conservation Commission  
Val Verde County  
City of Del Rio

## **6.0 FIGURES, TABLES AND COORDINATION LETTERS**

## **7.0 REFERENCES AND ENDNOTES**