City of Las Cruces
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ENVIRONMENTAL INFORMATION DOCUMENT

PCE Treatment Facility

Las Cruces, New Mexico

January 2010

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PCE Treatment Facility
Las Cruces, New Mexico

Submitted to
City of Las Cruces

Submitted by
Marron and Associates, Inc.
and
Daniel B. Stephens Associates

January 2010

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FROM: Peggy Ulman, Marron and Associates, Inc.

RE: Las Cruces PCE Treatment Facility Environmental Information Document, January 2010

DATE: January 12, 2010

Please find enclosed two copies of the draft Environmental Information Document (EID) for the proposed Las Cruces PCE treatment facility. These copies are sent for review and comment by you and your client, the City of Las Cruces. If you or your client need additional copies, please let us know. We will revise the draft EID if you have comments or revisions that you or your client would like to have addressed in the draft document.

The draft (or revised draft) EID should then be submitted to the New Mexico Finance Authority (NMFA) at the following address: NMFA, Attn: Michael Vonderheide, 207 Shelby Street, Santa Fe, NM 87501. The NMFA would then provide a review checklist to let us know if there is any additional information that may be needed in the final EID. Usually at that point, the NMFA approves the scheduling of a public hearing. A hearing notice must be placed in a local newspaper at least 45 days prior to the hearing date. In the interim, the draft EID and PER are would be made available for public review, usually by placing these documents in the local library. After the public hearing, a final version of the EID can be produced and the NMFA then issues their determination and proceeds with loan processing.

The NMFA considers agency and tribal coordination to be of very high importance in the environmental clearance process. We have received responses from most of the agencies contacted with some exceptions. This draft is incomplete in the following three areas:

- New Mexico Department of Game and Fish – We will be following up with additional contact with the NMDGF to request comments on the proposed project.
- State Historic Preservation Officer – We will need a copy of the SHPO concurrence letter that the City of Las Cruces should receive after the cultural resource survey report is submitted for SHPO review. Standard protocol for communications with the SHPO is for the local government, the City of Las Cruces in this case, to take the lead on communications with SHPO.
- Tribal consultation – Requirements for tribal consultation are found in Section 106 of the National Historic Preservation Act. This consultation occurs on a government-to-government basis. We have provided a template letter and mailing list to you for completion of the tribal consultation with the understanding that the City of Las Cruces would be sending out the tribal letters. For inclusion in the EID, we need copies of the letters that were sent as well as copies of any responses from tribes.

If our assistance is needed for tribal consultation or coordination with SHPO, please let us know.

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1.0 PROJECT PURPOSE AND NEED

1.1 Project Description

The City of Las Cruces proposes to construct a water treatment system to remediate tetrachloroethylene (PCE) contamination found in ground water using a modified pump and treat strategy. The proposed project involves the construction of a PCE treatment facility as well as construction of a pipeline to transport contaminated water from the extraction wells to the treatment facility. The PCE in the regional aquifer was initially detected in 1993, and subsequently, the impacted area was included on the National Priorities List (NPL) by the U.S. Environmental Protection Agency (EPA) as the Griggs and Walnut Ground Water Plume Superfund Site. Existing documentation related to this Superfund Site includes the remedial investigation (CH2M HILL 2006a), which determined the nature and extent of contamination, and the feasibility study (CH2M HILL 2006b), which evaluated remedial alternatives. An EPA Record of Decision (ROD) (2007) set forth the selected remedy for the Superfund Site.

The City of Las Cruces applied for a loan from the Drinking Water Revolving Loan Fund, as administered by the New Mexico Finance Authority (NMFA), for construction of a PCE water treatment system. A Preliminary Engineering Report (PER) (Daniel B. Stephens and Associates 2009) and this Environmental Information Document (EID) have been prepared in order to meet the requirements of the NMFA's State Environmental Review Process.

The planning area for the proposed project includes the location of City of Las Cruces (CLC) wells identified as CLC 18 and CLC 27, the existing Doña Ana County Transportation Department maintenance facility west of the intersection of East Griggs Avenue and Walnut Street, and the Upper Griggs Reservoir. This project area is shown in Figures 1 and 2 (Appendix A). CLC 18 is located northwest of the intersection of East Griggs Avenue and North Walnut Street, between East Griggs and Hadley Avenue (on the north side of the county maintenance facility). CLC 27 is located near the southeast corner of the East Griggs Avenue and North Walnut Street intersection. The Upper Griggs Reservoir is located at the intersection of East Griggs Avenue and North Triviz Drive. The total length of the planning area is approximately 3,400 feet from CLC 18 to the Upper Griggs Reservoir.

1.2 Purpose and Need

The purpose of the proposed project is to remove PCE from contaminated ground water. Beginning in 1993, PCE was detected in two municipal drinking water wells in Las Cruces during routine water quality sampling. The Griggs and Walnut Ground Water Plume Superfund Site was added to EPA's NPL of Superfund sites in 2001. At the time of listing, four Las Cruces municipal drinking water supply wells (CLC 18, 19, 21, and 27) were known to be affected by PCE contamination at concentrations above the Maximum Contaminant Level (MCL) of 5 micrograms per liter (µg/L). The City of Las Cruces and Doña Ana County signed a memorandum of understanding and formed the Joint Superfund Project (JSP) in response to the EPA's Request to Fund. The remedial investigation and feasibility study were performed by CH2M HILL under contract to the EPA. The Proposed Plan and the Record of Decision (ROD), issued by EPA on June 14, 2007, set forth the selected remedy for the site, which involves actions to address contaminated groundwater and be protective of human health and the environment.

The project is crucial to the overall protection of the drinking water supply in the City of Las Cruces. Because of the presence of PCE in water supply wells CLC 18, 19, 21, and 27, these wells have essentially been disconnected from the CLC water supply. This removal, in conjunction with the removal of other wells as a result of background concentrations of naturally occurring metals, has resulted in a decrease in the overall water supply. Restoring the capacity in the overall supply of water is crucial to the health of the community. Accordingly, the CLC and Doña Ana County, jointly acting as the Joint Superfund Project (JSP), have developed a plan for a remedy that addresses the contaminated groundwater and is protective of human health and the environment.

2.0 ALTERNATIVES

The alternatives presented in the EID are based on the alternatives evaluated in the Preliminary Engineering Report (PER) prepared by Daniel B. Stephens and Associates (2009). Due to the fact that the proposed project is associated with a Superfund Site, remedial alternatives have also been evaluated through Superfund documentation. The findings and conclusions of previous evaluations of remediation alternatives provided the starting point for the PER. Specifically, the ROD (EPA 2007) reviewed the following alternatives: no action, groundwater extraction and blending, groundwater extraction and treating, and in-well air stripping.

In developing these alternatives, EPA and its contractor, CH2M HILL, worked closely with the City of Las Cruces and Doña Ana County to use to the extent possible existing wells and infrastructure as key elements within the remedy. Based on protection of human health, costs, and time to reach remediation goals, a modified groundwater extraction and treatment remedy was selected. Alternative groundwater treatment technologies that could be used in the PCE remedy were evaluated by Daniel B. Stephens and Associates. The PER considered the following treatment process alternatives: air stripping, liquid phase granular activated carbon adsorption, and advanced oxidation process. An air stripping method, low-profile tray aeration, was recommended as the preferred alternative in the PER.

2.1 Proposed Action

As discussed in the PER, the recommended alternative for removing PCE from the source water consists of construction of a centralized low-profile tray aeration system at the site of existing CLC 18. With the exception of the influent and effluent equalization tanks, the treatment system would be housed within a 3500-square-foot building to be constructed on city-owned property at the CLC 18 well site. Water from supply wells CLC 18 and CLC 27 would initially be pumped to an influent equalization tank through new 8-inch PVC water lines. Approximately 1400 linear feet of new water line would be installed. See Figure 3 for the location of the proposed treatment facility and the new transmission line.

Low-profile tray aeration is an effective treatment process for removal of PCE, potentially achieving removal rates in excess of 99 percent. Low-profile tray aeration operates by forcing counter-current air through horizontally extended trays to transfer volatile organic compounds, such as PCE, from the water to the air. The stripped vapors flow out the top of the unit for discharge to the atmosphere or collection and additional treatment, depending on the air emission concentrations and local air permit requirements. The water flows down through the holes in the trays, where it is collected in a sump and pumped to a storage tank prior to conveyance to the distribution system.

A proposed treatment facility layout based on the recommended alternative is shown on Figure 4 and includes the general locations for basic required equipment, including low-profile tray aeration units, equalization tanks, transfer pumps, chemical storage, a room for electrical components and controls, an office and restroom, and additional space for optional metals treatment. Additionally, disinfection of the process stream would be performed prior to conveyance to the drinking water system, according to standard practices of the Las Cruces Utilities Department. Treated water would be conveyed to the Upper Griggs Reservoir in existing water lines.

2.2 No Action Alternative

Under the requirements of the NMFA's State Environmental Review Process, a No Action Alternative must be considered to provide a baseline for comparison of other remedial alternatives. Under this alternative, the NMFA would not provide funding for the proposed PCE ground water treatment facility. The No Action Alternative would leave the water system in its existing condition. As noted in the ROD (EPA 2007), if no hydraulic containment is provided, the PCE plume would eventually migrate and contaminate other municipal wells. The No Action Alternative does not meet the purpose and need of the project.

3.0 AFFECTED ENVIRONMENT / ENVIRONMENTAL CONSEQUENCES

3.1 Environmental Setting

Las Cruces is located in the Mesilla Valley in the central portion of Doña Ana County, New Mexico. The county borders Mexico and Texas to the south. The area is within the Chihuahuan Desert region. Las Cruces is the center of an agricultural region irrigated by the Rio Grande that flows west of the City.

3.2 Land Use

3.2.1 General Land Use

The project area is located in a developed urban area in Las Cruces. Land uses in the project area are a mixture of urban land uses including: commercial, office, residential, industrial, vacant, and institutional (maintenance yard, water storage tank site). No farmland, rangeland or forestland exists within the project area.

The proposed treatment facility would be constructed on City of Las Cruces-owned property at CLC 18. The site is currently zoned M-2, standard industrial. The proposed new transmission line would be placed within the right-of-way of streets maintained by the City of Las Cruces.

3.2.2 Important Farmland

The project area is developed; no agricultural activities occur within the project area. No prime, unique, or locally important farmland exists within the project area. The Natural Resources Conservation Service (NRCS) was consulted in regard to farmlands and the Farmland Policy Protection Act.

3.2.3 Soils

Soil survey information for the proposed project area was obtained from the NRCS (2009). The primary soil type in the project area is identified as Bluepoint-Caliza-Yturbide complex. This complex is composed of three sub-soil types that are considered well drained to excessively drained with low to moderate runoff potential. Soils of this type are considered susceptible to wind erosion. Other soil types also found in the vicinity of the project area include Canutio and Arizo gravelly sandy loam and Bluepoint loamy sand, 1 to 5 percent slopes. Over one acre of soils would be disturbed during construction activities including clearing and grading for construction of the PCE treatment facility and trenching for the transmission line .

3.2.4 Formally Classified Lands

There are no national or state parks or forests within one mile of the project area. The National Park Service was consulted for information and comments regarding formally classified land use. The proposed project will not affect wild and scenic rivers, national parks, forests, refuges, or wilderness areas.

3.3 Floodplains

Floodplains are lands that are inundated during high flows, typically 100-year floods. Executive Order (EO) 11988 regarding floodplain management requires that any potential impacts to floodplains be assessed to reduce the risk of flood loss, minimize the impact of floods, and preserve the values served by floodplains. In order to comply with EO 11988, the proposed project location was compared to the Flood Insurance Rate Map (FIRM) as prepared by the Federal Emergency Management Agency (FEMA). The project area is shown on the following two FEMA Flood Insurance Rate Maps dated April 9, 2007: 35013C1084G and 35013C1103G. On these floodplain maps, the project area is shown as Zone X, an area outside the 0.2% annual chance floodplain.

The City of Las Cruces is a participant in the National Flood Insurance Program. The City's Floodplain Administrator was consulted in regard to the proposed project.

3.4 Wetlands

Wetlands are lowland areas that are inundated or saturated with water for a sufficient time to allow a prevalence of hydrophytic vegetation to develop. Jurisdictional wetlands, those protected from unauthorized dredge-and-fill activities under Section 404 of the Clean Water Act and EO 11990, have three essential characteristics: dominance by hydrophytic vegetation, hydric soils, and wetland hydrology. Hydrophytic vegetation requires inundated or soil saturation for its existence. Hydric soils are ponded or flooded for a sufficient time during the growing season to develop anaerobic conditions. Wetland hydrology is the availability of surface water or ground water to create the wetland environment.

The project area was surveyed for the presence of wetlands. No wetland areas are present within or adjacent to the project area, and the project will have no impact on wetlands or riparian habitat.

3.5 Water Resources

3.5.1 Surface Water

The construction of the Proposed Action will have no effect on any natural surface water features. The U.S. Army Corps of Engineers (USACE) has indicated that the Proposed Action would not require a Clean Water Act Section 404 permit.

The EPA requires National Pollutant Discharge Elimination System (NPDES) Construction General Permit (CGP) coverage for storm water discharges from construction projects that will result in the disturbance of one or more acres of total land area. Because the proposed project will disturb more than one acre, appropriate NPDES permit coverage will be required prior to beginning construction. A Storm Water Pollution Prevention Plan (SWPPP) must be prepared for the site and appropriate Best Management Practices (BMPs) must be implemented and maintained both during and after construction to prevent, to the extent practicable, pollutants (primarily sediment, oil and grease, and construction materials) in storm water runoff from entering waters of the United States.

3.5.2 Groundwater

The City of Las Cruces relies on a deep aquifer called the Mesilla Bolson as its source of drinking water. Groundwater depths occur 100 feet or more below the ground level within the Superfund Site boundaries. The nature and extent of groundwater contamination associated with the Griggs and Walnut Plume Superfund Site has been well documented in Superfund-related reports (CH2M Hill 2006a, 2006b). The proposed PCE treatment system will accommodate a total hydraulic flow of 500 gallons per minute (gpm), greater than the initial combined flow from the two extraction supply wells of 200 to 300 gpm.

The proposed PCE water treatment project is intended to remediate contaminated groundwater and restore use of existing CLC wells. The project is not anticipated to create additional demand on ground water resources.

Project-related construction activities will likely involve the use of heavy equipment, thereby leading to the possibility of contaminant releases (e.g. fuel, hydraulic fluid, etc.) associated with equipment malfunctions. The NMED Groundwater Quality Bureau advises all parties involved in the project to be aware of discharge notification requirements contained in 20.6.2.1203 NMAC.

3.6 Coastal Resources

There are no coastal resources in New Mexico.

3.7 Air Quality

Las Cruces is an attainment area under the Clean Air Act. Two designated non-attainment areas occur in southern Doña Ana County. The Anthony PM10 (particulate matter of 10 micrometers or less) non-attainment area is located approximately 30 miles south of Las Cruces. The Sunland Park ozone non-attainment area is located approximately 45 miles south of Las Cruces.

As stated in the PER (Daniel B. Stephens and Associates 2009), air stripping processes, such as low-profile tray aeration, remove dissolved PCE from source water by mass transfer through diffusion processes from the liquid to the vapor phase. Air contaminated with PCE can be discharged to the atmosphere if it meets the criteria of certain federal and state regulations. If the contaminated air does not meet these regulations, additional treatment, such as vapor-phase GAC adsorption, may be required. The NMED Air Quality Board (AQB) is responsible for authorizing and permitting the emission of regulated air pollutants from a source that is either newly constructed or modified. NMED regulates air quality permits for constructed or modified sources under 20.2.72.200(A) NMAC. This regulation requires a permit or a notice of intent for any source that emits greater than 10 pounds per hour and 10 tons per year of any regulated contaminant.

Because the Griggs and Walnut Plume is a Superfund Site, however, a permit with the NMED AQB is not required, although permitted emission standards must be met. In order to receive a "No Permit Required" (NPR) designation, typically emissions must be below both of these thresholds and a letter must be written to the AQB providing details of the application and estimated pollutant production.

3.8 Biological Resources

3.8.1 Vegetation

The project area supports disturbed Chihuahuan Desert Scrub. The dominant species present in the project area include mesquite (*Prosopis glandulosa*), creosotebush (*Larrea tridentata*), prickly pear (*Opuntia* spp.), buffalo gourd (*Cucurbita foetidissima*), yucca (*Yucca elata*), snakeweed (*Gutierrezia* spp.), and Russian thistle (*Salsola tragus).*

The proposed project would temporarily disturb approximately one acre of soils and much of the project area is currently not vegetated. The project area has been impacted and disturbed by human activity and development. The Proposed Action is not expected to adversely impact existing vegetation. After completion of the project, disturbed areas would be stabilized or seeded with certified weed-free native vegetation to reduce soil erosion and surface water quality impacts as well as improve wildlife habitat. Stabilization or seeding would be in conformance with other applicable regulations including the Storm Water Pollution Prevention Plan.

3.8.2 Wildlife

The project area occurs in a heavily disturbed urban area and does not provide high quality wildlife habitat. The following bird species were observed within or near to the project area: house sparrow (*Passer domesticus*), northern flicker, (*Colaptes auratus*), mockingbird (*Mimus flolyglottos*), and rock dove (*Columba livia*).

Mammals or their sign were not observed in the project area. Mammals that may utilize the project area include Ord's kangaroo rat (*Dipodomys ordii*), desert cottontail (*Sylvilagus audubonl*), and black-tail jackrabbit (*Lepus californicus*).

Reptiles were not observed, but those likely to inhabit the project area include species such as checkered whiptail (*Cnemidophorus grahamii*), little striped whiptail (*Cnemidophorus inornatus*), greater earless lizard (*Cophosaurus texanus*), and prairie lizard (*Sceloporus undulates*).

Project activities would affect approximately one acre of low-quality habitat. The Proposed Action is expected to have little effect on wildlife. In order to preclude trapping any small mammals or reptiles, the NMDGF recommends installing and burying any trenching concurrently. Otherwise, escape ramps can be provided if trenches must be left open overnight.

3.8.3 Threatened and Endangered Species

To identify potentially occurring threatened, endangered, sensitive, or special-status species in the project area, federal and state agencies and their lists of protected species were consulted in conjunction with an

assessment of the actual site conditions (see Appendix B for agency correspondence). Examined lists included the U.S. Fish and Wildlife Service (USFWS) list of federally protected species (USFWS 2009), the New Mexico Rare Plant Technical Council list (2004), and the New Mexico Department of Game and Fish (NMDGF) list (2009).

It was determined that the existing habitat was highly disturbed and was not suitable for any threatened or endangered species. No riparian habitat is present within or adjacent to the project area, and no designated critical habitat is located in the project area. The biological survey for the proposed project was completed with a finding of "no effect" to threatened or endangered species or other biological resources. Copies of agency responses are included in Appendix B.

3.9 Archaeological, Cultural, and Historic Resources

A Class III pedestrian cultural resource survey was conducted in November 2009, and the Archaeological Management System (ARMS) records were examined to identify known cultural resources in the area. No previously recorded or newly discovered cultural resource sites were discerned within the project area. Most of the surveyed space is severely disturbed urban right-of-way or municipal yard. The area has been built up within the last 30 years, and none of the adjacent buildings within 100 feet of the Area of Potential Effect are historic.

The Doña Ana County pauper's cemetery is located near the project area, outside the right-of-way, at the northwest corner of the intersection of Griggs and the unnamed street that extends north to the municipal yard. The proposed PVC pipeline would be located on the opposite side of the pavement from the cemetery, and no impact is anticipated. Nonetheless, the cultural resource survey report recommends, subject to review and concurrence of the NMFA and the State Historic Preservation Officer (SHPO), that an archaeological monitor be present during excavation along the unnamed road in case unmarked graves are present within the project area.

3.10 Socioeconomic Impacts and Environmental Justice

Socioeconomic data for the City of Las Cruces was compared to similar data for Doña Ana County, and the State of New Mexico as shown in Table 1 (U.S. Census Bureau 2009). Hispanics are the largest minority group in the project area. The year 2000 Census data indicates that 51.7% of Las Cruces residents are of Hispanic origin. This percentage is lower than the percentage of Hispanics in Doña Ana County (63.4%) and lower that the statewide Hispanic population (42.1%). The poverty rate is higher in Doña Ana County as compared to Las Cruces and the state. Per capita income in Las Cruces is lower than the state average but higher than the Doña Ana County per capita income.

The proposed water treatment facility would be used to treat ground water to meet the standards of the Safe Drinking Water Act. Treated water would be introduced into the municipal water supply and served to water service customers. The proposed project is intended to have a long-term benefit for the community.

In compliance with EO 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, potential environmental impacts to minority and low-income communities were evaluated. Environmental justice (EJ) is defined by EPA as the fair and meaningful involvement of all people regardless of race, color, national origin, or income with respect to development, implementation, and enforcement of environmental laws, regulations, and policies. The goal of fair treatment is not to shift risks among populations but to identify potential disproportionately high adverse impacts and to identify alternatives to mitigate those impacts.

The potential environmental justice index as computed by the EPA Region 6 is shown in Table 2 for both a one-square-mile study area and a 50-square-mile study area centered at the proposed project area based on both 1990 and 2000 data. A copy of the EJ index information provided by EPA Region 6 is provided in Appendix D.

Table 1. Minority and Income Characteristics

	Las Cruces	Doña Ana County	New Mexico
Population	74,267	174,682	1,819,046
Race Group/ Ethnicity*			
- White	69.0%	67.8%	66.8%
- Hispanic/Latino (of any race)	51.7%	63.4%	42.1%
- Native American	1.7%	1.5%	9.5%
- African American	2.3%	1.6%	1.9%
- Asian	1.2%	0.8%	1.1%
- Hawaiian/Pacific	0.1%	0.1%	0.1%
- Some other race	21.6%	24.7%	17.0%
- Two or more races	4.1%	3.6%	3.6%
Per Capita Income	$15,704	$13,999	$17,261
Poverty rate	20.6%	21.4%	18.4%

**Minority percentages do not add to 100 percent because Hispanic/Latino includes more than one race*

The proposed project will be conducted in a manner to ensure that there will be no exclusion of persons or populations from participating in the project, no denying persons or populations the benefits of the project, and no subjecting persons or populations to discrimination because of their race, color, income level, or national origin, in accordance with EO 12898. The proposed project would be constructed to serve residences and businesses served by the City of Las Cruces water system. No residents or businesses would be displaced by the proposed project, so the character of the community would remain the same. A short-term economic benefit will be realized by the creation of construction jobs for the project.

Table 2. Potential Environmental Justice Index

	Study Area	
	1 square mile	50 square miles
Year	EJ Index	
1990	6	12
2000	12	12

Source: EPA Region 6, 2009

3.11 Other Resources

3.11.1 Public Health and Safety

If present in the environment, hazardous substances are a serious concern because of health and safety risks for the public and construction workers as well as potential cleanup liability.

The Griggs and Walnut Superfund Site appears on the US EPA's Final National Priorities List (NPL). The NPL is the list of the most hazardous sites across the United States. No other sites listed on the Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) database are known to occur at or within 0.5 miles of the project area (USEPA 2009).

Other unidentified contaminants may exist within or adjacent to the project area. The Doña Ana County Road Department Yard is listed as a New Mexico Environment Department (NMED) State Clean Up Site

for motor oil and gasoline and is on the list of NMED leaking underground station tank (LUST) sites (NMED, 2009b; NMED, 2009d). No other State Clean Up or LUST sites are listed within or adjacent to the project area. The yard contained vehicles, road equipment, 55-gallon barrels, and stained soils. Valley Truss, Inc. is a closed industrial facility located on the northwest corner of Griggs Avenue and Walnut Street. The facility has been abandoned, but environmental contaminants could be present at this location. The area north of the Doña Ana County Road Department Yard and Valley Truss facility is used to store gravel, and stained soils were observed in this area.

The construction contractor will ensure that no hazardous materials are released during construction activities. Any hazardous materials will be properly monitored, maintained, and stored while present at the construction site. If contaminated soil or groundwater is encountered during construction, actions will be taken immediately to protect workers and residents from exposures. The NMED will be contacted for guidance, and any contaminated materials will be properly handled.

3.11.2 Energy

Irreversibly and irretrievably committed resources associated with the facility are primarily the materials needed for the construction, and the fossil fuels and energy resources needed to operate and maintain the facility. In general, short-term energy demands will increase during the construction phase, including fuel use for construction equipment. These impacts are considered to be minor. The operation of the public water system requires energy, but no long-term energy impacts are expected in association with the proposed project. No mitigation is required.

3.11.3 Transportation

Other than short-term construction-related disruptions of street traffic and intersections during waterline construction, local roadway capacities and the levels of service at intersections would not be affected by the proposed project. Public transportation (bus service) would not be affected and no bike lanes would be affected. Direct impacts would be localized traffic disruptions, of a temporary nature, while the path of construction crosses traffic corridors or temporarily disrupts rights-of-way. An increase in traffic related to construction activity could temporarily impact local traffic patterns; however, overall traffic disruption is expected to be minimal. Impacts to the project area are expected to be short term. The construction contractor will be required to utilize appropriate traffic safety measures where appropriate.

3.11.4 Visual Impacts

The proposed site for construction of the PCE treatment facility is in a developed mixed land use area. The visual quality of this area is moderate with no outstanding views. The proposed PCE treatment facility would be housed within a 3500-square-foot building. The treatment facility would not block or obstruct any views, such as the Organ Mountains. The views from nearby residential areas would not be affected. The placement of the treatment facility is in character with the surrounding land use. The proposed project would have no effect on the aesthetic values or scenic quality in the area. No mitigation measures are required.

3.11.5 Noise

No long-term noise impacts are anticipated from the project. The PCE treatment facility would be housed within a building. No equipment or operational noise is expected to adversely impact the area. During construction, noise levels will be higher than normal due to the operation of construction equipment. Construction activities will be primarily limited to daylight hours when loud noises are more tolerable and minimize impacts on nearby residential areas.

3.12 Cumulative Impacts

Cumulative impacts are defined as the impacts that result from the incremental impact of an action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or

person undertakes such other actions. Cumulative impacts also can result from individually minor but collectively significant actions taking place over a period of time. The cumulative and secondary effects of the project may include stimulated growth in the area with associated loss of vegetation and wildlife habitat, increased traffic, and possible changes in the social and economic character of the area. Some growth in the area would likely occur without the improvement of the water system. Vacant parcels near the project area will likely be developed into commercial, office, or light industrial land uses as Las Cruces grows as a community. Routine maintenance projects for streets, waterlines, sewer lines, and communication lines will probably be planned and completed in future years. Remediation of impacted groundwater will help ensure that adequate drinking water is available for future water users.

4.0 SUMMARY OF MITIGATION MEASURES

4.1 Physical Resources Measures

Land Use. The PCE treatment facility would be located on City-owned property at CLC 18. The new transmission line would be placed within right-of-way adjacent to City streets. No mitigation is required.

Floodplains. No designated floodplains or special flood hazard areas are present within the project area. No mitigation is required.

Wetlands. No wetlands are present within the project area. No mitigation is required.

Water Resources. The EPA requires NPDES Construction General Permit coverage for storm water discharges from construction projects that will result in the disturbance of one or more acres of total land area. Because the proposed project will disturb more than one acre, appropriate NPDES permit coverage will be required prior to beginning construction. A SWPPP must be prepared for the site and appropriate BMPs must be implemented and maintained both during and after construction to prevent, to the extent practicable, pollutants (primarily sediment, oil and grease, and construction materials) in storm water runoff from entering waters of the United States.

There are no waters of the U.S. within the project area. The USACE has been contacted about the project and has indicated that a Clean Water Act Section 404 permit would not be required for construction of the Proposed Action.

The construction activities associated with the Preferred Alternative will likely involve the use of heavy equipment, thereby leading to the possibility of contaminant releases (e.g. fuel, hydraulic fluid, etc.) associated with equipment malfunctions. All parties involved in the project are required to be aware of discharge notification requirements contained in 20.6.2.1203 NMAC.

Coastal Resources. No mitigation is required.

Air Quality. Because the Griggs and Walnut Plume is a Superfund Site; however, a permit with the NMED AQB is not required, although permitted emission standards must be met. In order to receive a "No Permit Required" (NPR) designation, typically emissions must be below both of these thresholds and a letter must be written to the AQB providing details of the application and estimated pollutant production.

4.2 Biological Resource Measures

Disturbed areas will be seeded, as appropriate, and in conformance with the SWPPP for the project. Excavation and burying for trenching will occur simultaneously to prevent trapping of small mammals and reptiles, or escape trenches will be provided if trenches are left open.

4.3 Threatened and Endangered Species Measures

The Proposed Action will not adversely impact threatened and endangered species. No mitigation measures are required.

4.4 Socioeconomic/Environmental Justice Measures

No mitigation is required.

4.5 Archaeological, Cultural, and Historic Resources Measures

An archaeological monitor will be present during excavation along the unnamed road in the vicinity of the pauper's cemetery in case unmarked graves are present within the project area. If human burials are encountered during construction activities, all ground disturbing activities in the vicinity of the human remains will cease and the local law enforcement agency, the New Mexico Office of the Medical Investigator, and the New Mexico SHPO will be contacted.

4.6 Environmentally Sensitive Areas

No environmentally sensitive areas are known to exist within the project area. No mitigation is required.

4.7 Other Resources

Public Health and Safety. The construction contractor will ensure that no hazardous materials are released during construction activities. Any hazardous materials will be properly monitored, maintained, and stored while present at the construction site. If contaminated soil or ground water is encountered during construction, actions will be taken immediately to protect workers and residents from exposures. The NMED will be contacted for guidance and any contaminated materials will be properly handled.

Energy. No mitigation required.

Transportation. The construction contractor will be required to utilize appropriate traffic safety measures.

Visual Impacts. No mitigation required.

Noise. During construction, noise levels will be higher than normal due to the operation of construction equipment. Construction activities will be limited to daylight hours when loud noises are more tolerable and to minimize impacts to nearby residential areas.

4.8 Cumulative Impact Measures

No mitigation required.

4.9 Resource Commitments

Implementation of the proposed project would involve a commitment of a range of natural, physical, human, and fiscal resources. Fossil fuels, labor, and construction materials will be expended in the project. These materials are generally not retrievable; however, they are not in short supply, and their use will not have an adverse effect on the continued availability of such resources. Construction will also require an expenditure of public funds that are not retrievable.

The commitment of these resources is based on the concept that residents would benefit from the new and improved water facilities. The benefits are anticipated to outweigh the use of material resources.

5.0 CONSULTATION, COORDINATION, AND PUBLIC INVOLVEMENT

5.1 Agencies Consulted

Consultation letters were mailed to federal, state, and local agencies in regard to the proposed PCE water treatment system in the City of Las Cruces. An example of the agency consultation letter is included in Appendix C Table 3 lists the dates for responses received and a brief summary of the response. The agency response letters are included in Appendix B.

Table 3. Agency Consultations

Agency / Contact	Date of Response	Comments
US Army Corps of Engineers Richard H. Gatewood, Regulatory Project Manager PO Box 6096 Fort Bliss, TX 79906	1/6/2010	"Under Section 404, the Corps regulates the discharge of dredged and fill material into waters of the United States, including wetlands. The Corps responsibility under Section 10 is to regulate any work in, or affecting, navigable waters of the United States. Based on your description of the proposed work, other information available to us, and current regulations and policy, we have determined that this project will not involve any of the above activities. Therefore, it will not require Department of the Army authorization under the above laws."
US EPA Region 6 Sole Source Aquifer Program Groundwater / UIC Section Michael Bechdol, Coordinator 1445 Ross Avenue Dallas, TX 75202	12/15/2009	"Based on the information provided, we have concluded that the project does not lie within the boundaries of a designated sole source aquifer (SSA) and is thus not eligible for review under the SSA program."
US Fish and Wildlife Service, Attn: Wally Murphy 2105 Osuna NE Albuquerque, NM 87113	12/14/2009	The USFWS response letter is a general form letter that provides internet references to species information regarding threatened or endangered species.
Natural Resources Conservation Service, Attn: Dennis Alexander 6200 Jefferson NE Albuquerque, NM 87109	12/21/2009	"There is no prime or unique farmland in the project area. The NRCS has no objections to the proposed project."
National Park Service Intermountain Region Roxanne Runkel 12795 Alameda Parkway Denver, CO 80225	1/8/2010	"The National Park Service has reviewed this project and determined that no parks will be affected; therefore, we have no comments."
New Mexico Environment Department, Attn: Georgia Cleverley, Environmental Impact Review Coordinator PO Box 26110 Santa Fe, NM 87502	12/28/2009	**Ground Water Quality Bureau:** "It is unlikely that implementation of this project would have any adverse effect on ground water quality in the area. However, the project is likely to involve the use of heavy equipment, thereby leading to the possibility of contaminant releases (e.g. fuel, hydraulic fluid, etc.) associated with heavy equipment malfunctions. The GWQB advises all parties involved in the project to be aware of discharge notification requirements contained in 20.6.1203 NMAC Compliance with the notification and response requirements will ensure the protection of ground water quality in the vicinity of the project. In consideration of the project's proximity to the Griggs and Walnut Ground Water Plume Superfund Site, GWQB

		recommends that the City or their contractors monitor volatile organic compound (VOC) headspace concentrations during excavation activities as a precautionary measure. GWQB requests that a concerted effort be made to protect the integrity and accessibility of any existing ground water monitoring wells associated with the monitoring network at the Superfund site. **Surface Water Quality Bureau:** The US EPA requires National Pollutant Discharge Elimination System (NPDES) permit coverage for storm water discharges from construction projects that will result in the disturbance of one or more acres. If this project exceeds one acre, it requires appropriate NPDES permit coverage prior to beginning construction.
New Mexico Department of Game and Fish, Attn: Matt Wunder, Chief, Conservation Services Division PO Box 25112 Santa Fe, NM 87504		
New Mexico Energy, Minerals and Natural Resources, Attn: Robert Sivinski 1220 S. St. Francis Santa Fe, NM 87505	1/4/2009	"Looks like most of the project is already disturbed. No federally-listed threatened or endangered plant species would be there."
Office of the State Engineer, Attn: John D'Antonio PO Box 25102 Santa Fe, NM 87504	12/28/2009	No comment. Signed by Calvin Chavez
New Mexico Historic Preservation Division State Historic Preservation Officer (SHPO) 228 East Palace Avenue Santa Fe, NM 87501	Pending	Note: The cultural resource survey report was submitted to the SHPO by the City of Las Cruces.
City of Las Cruces Attn: Floodplain Administrator 575 S. Alameda Blvd, Rm 202 Las Cruces, NM 88005		

5.2 Section 106 Tribal Consultation

The City of Las Cruces completed Section 106 tribal consultation regarding Traditional Cultural Properties. A consultation letter was mailed to each of the eight tribal governments identified in Table 4 on _____. An example of the consultation letter is provided in Appendix C; copies of the responses received are provided in Appendix B.

Table 4. Section 106 Tribal Consultation

Tribal Government	Date of Response	Comments
Mescalero Apache Tribe PO Box 227		

Mescalero, NM 88340		
Isleta Pueblo PO Box 1270, Isleta Pueblo, NM 87022		
Navajo Nation PO Box 9000, Window Rock, AZ 86515		
Kiowa Tribe of Oklahoma PO Box 369 Carnegie, OK 73015		
White Mountain Apache PO Box 700, Whiteriver, AZ 85941		
Ysleta del Sur PO Box 17579, El Paso, TX 79917		
Comanche Indian Tribe PO Box 908 Lawton, OK 73502		
Fort Sill Apache Rt 2, Box 121 Apache, OK 73006		

5.3 Public Involvement

Through various public outreach efforts, the EPA, City of Las Cruces, Doña Ana County and NMED have kept the Las Cruces community informed of Superfund Site activities. In addition to preparation of informational fact sheets, other methods used for public outreach include individual mailings, community open houses, and public meetings.

After review and approval of the draft EID by the NMFA, a public hearing will be planned and scheduled. A legal notice will be published in a local newspaper advertising the public hearing for the Proposed Action at least 45 days prior to the public hearing date. The final EID will include documentation of the public hearing including an affidavit of the legal notice publication, sign-in sheet for the public hearing, and a transcript of the comments from the public hearing.

5.4 Responsiveness Summary

In response to comments from the NMED Ground Water Quality Bureau (see letter dated December 28, 2009 in Appendix B), environmental commitments were included in this document including monitoring of VOC headspace concentrations during excavations as well as protection of monitoring wells within the Superfund site. In response to comments from the NMED Surface Water Quality Bureau, a commitment is included regarding NPDES permit coverage for construction of the proposed project.

The responsiveness summary will be completed after the public hearing and will document any project-related modifications that may be made in regard to public comments received about the Proposed Action.

6.0 REFERENCES

CH2M HILL. 2006a. *Remedial investigation report Griggs and Walnut Ground Water Plume Superfund Site Las Cruces, New Mexico.* Remedial Action Contract No. EP-W-06-021, Task Order No. 0007-RICO-06HZ. November 2006.

CH2M HILL. 2006b. *Feasibility study report, Griggs and Walnut Ground Water Plume Superfund Site Las Cruces, New Mexico.* Remedial Action Contract No. EP-W-06-021, Task Order No. 0007-RICO-06HZ. December 2006.

Degenhardt, W.G., C.W. Painter, and A.H. Price. 1996. Amphibians and Reptiles of New Mexico. Albuquerque, NM: University of New Mexico Press.

Dick-Peddie, W.A. 1993. New Mexico Vegetation Past, Present and Future. Albuquerque, NM: University of New Mexico Press.

Findley, J.S. 1987. The Natural History of New Mexican Mammals. Albuquerque, NM: University of New Mexico Press.

Ligon, J.S. 1961. New Mexico Birds and Where to Find Them. Albuquerque, NM: University of New Mexico Press.

New Mexico Geological Society 2003. Geologic Map of New Mexico. Socorro, NM: New Mexico Bureau of Mining and Mineral Resources, New Mexico Institute of Mining and Technology.

New Mexico Department of Game and Fish (NMDGF). 2009. Bison-M Database. Santa Fe, NM: NMDGF. Web site: www.cmiweb.org/states/.

New Mexico Native Plant Protection Advisory Committee. 2004. *New Mexico Rare Plants.* Website: http://nmrareplants.unm.edu.

US Department of Agriculture Natural Resources Conservation Service. 2009. NRCS Web Soil Survey, USDA NRCS: http://soildatamart.nrcs.usda.gov/

US Fish and Wildlife Service (USFWS). 1998. *Threatened and Endangered Species of New Mexico 1998.* Albuquerque, NM: USFWS, Ecological Services Field Office.

U.S. Fish and Wildlife Service (USFWS). 2009. List of Federal Endangered, Threatened, Proposed, and Candidate Species and Species of Concern in New Mexico. Ecological Services Field Office. Albuquerque, New Mexico.

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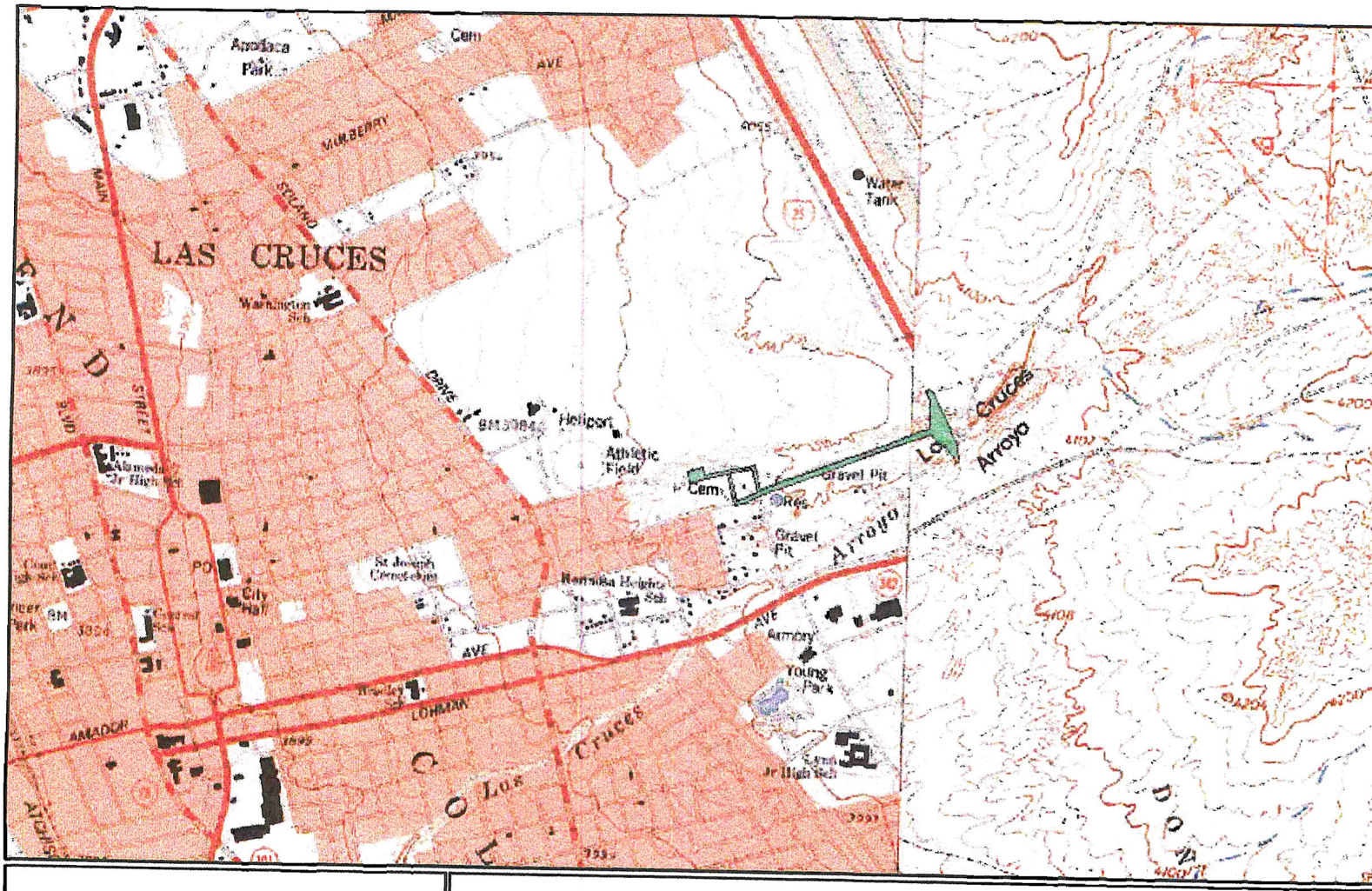
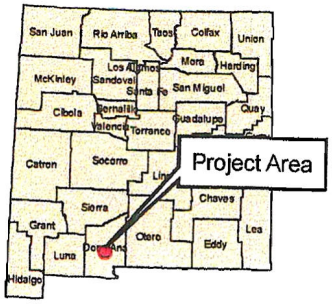
USEPA 2006. CERCLIS Hazardous Waste Sites. http://www.epa.gov/superfund/sites/siteinfo.htm March 26, 2004.

U.S. EPA. 2007. *Record of decision, Griggs and Walnut Ground Water Plume Superfund Site.* June 2007.

Williams, J.L. 1986. Maps of New Mexico. University of New Mexico Press, Albuquerque, New Mexico.

Appendix A
Maps





LEGEND

Project Area

Las Cruces, and Tortugas Mt., NM
USGS 7.5' Quadrangles

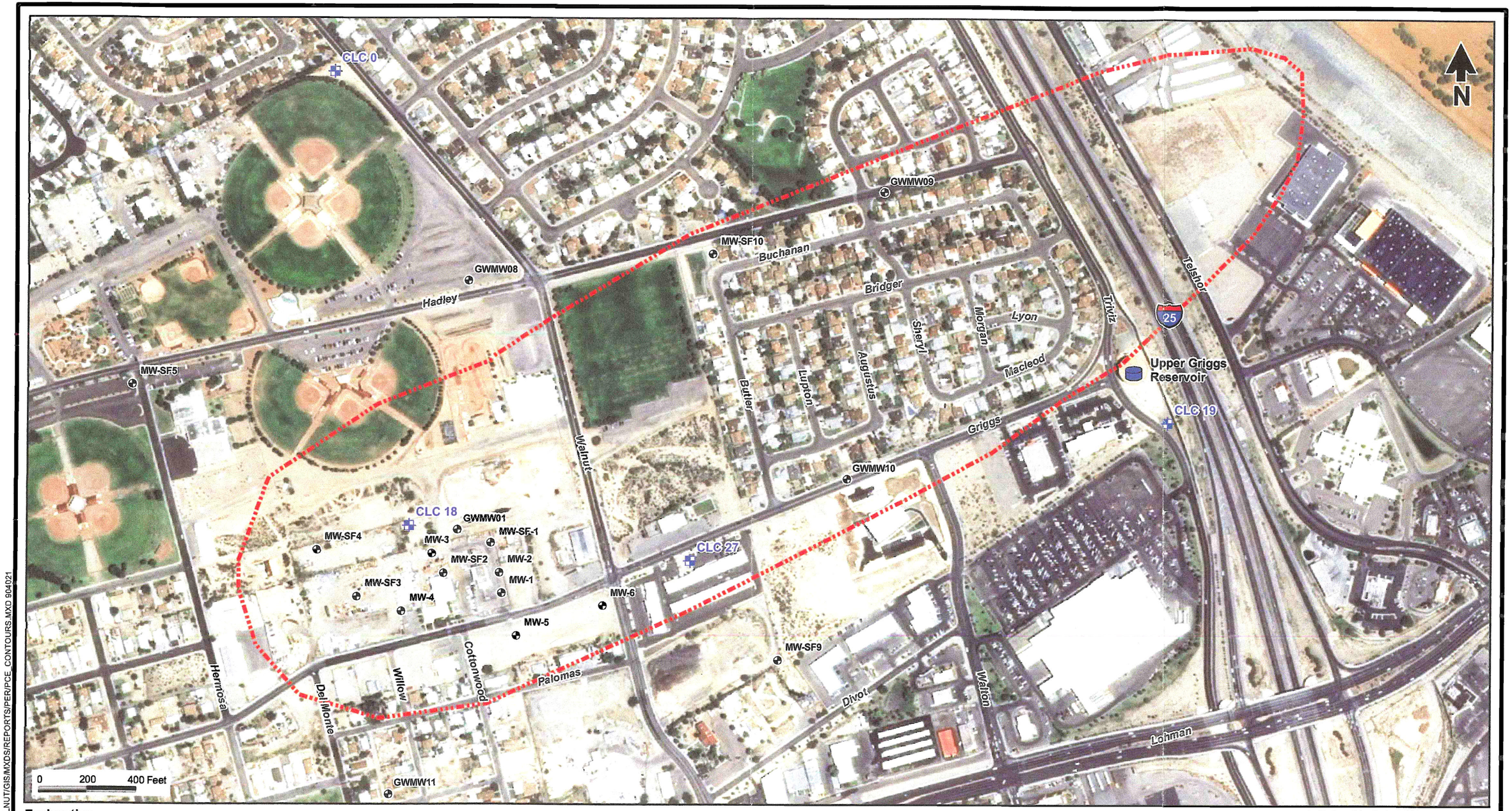
Dona Ana Bend
Colony Land Grant,
Dona Ana County, NM

1:24,000

0 1 Miles

N

Griggs-Walnut Project



Explanation

- City of Las Cruces supply well
- City of Las Cruces monitor well
- City of Las Cruces water reservoir
- PCE in groundwater greater than 5 µg/L

Sources: 1. National Agricultural Imagery Program
August 2009
Downloaded from RGIS
2. JSAI, 2009

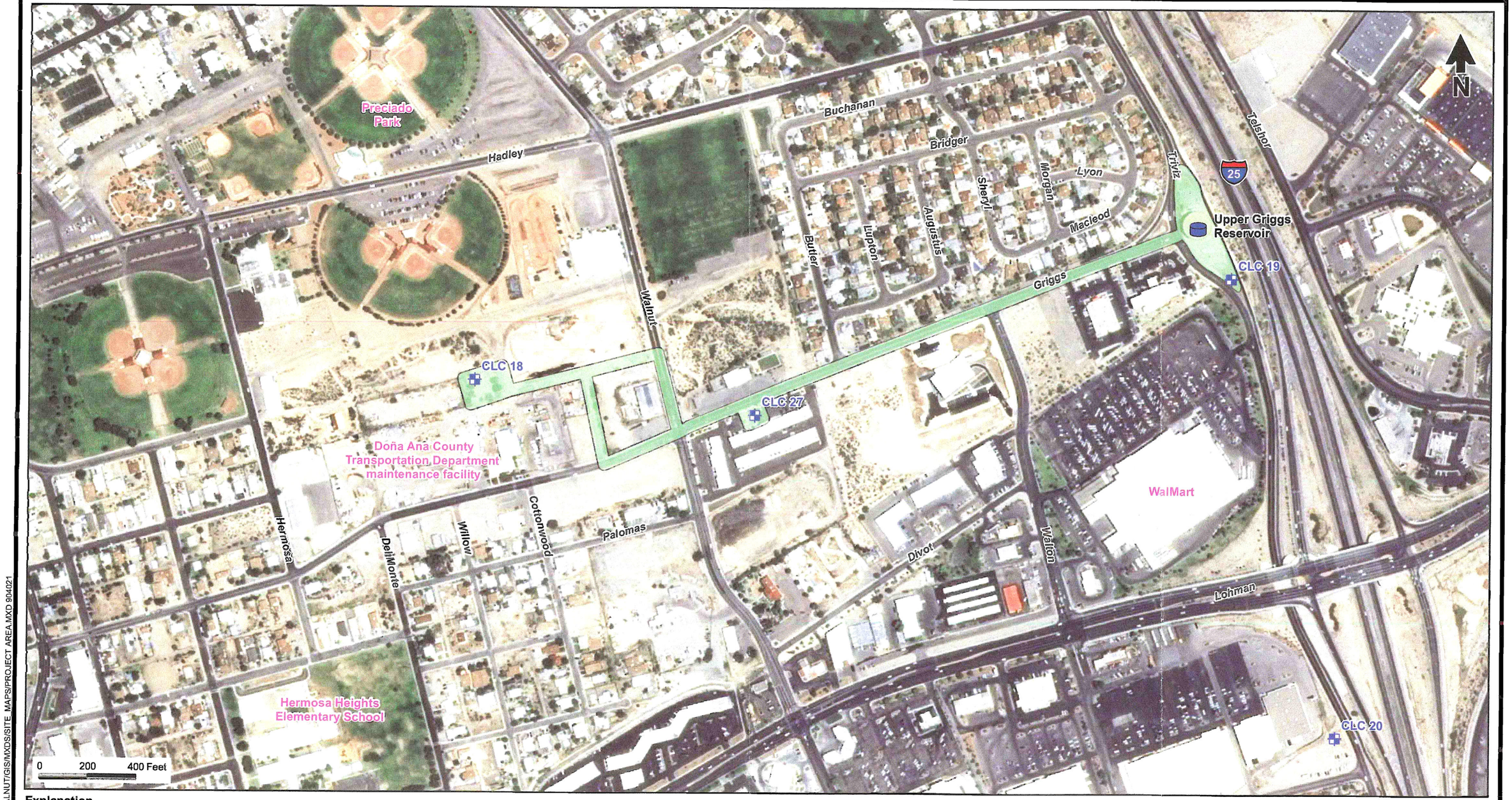
S:/PROJECTS/ES09.0306_GRIGGS-WALNUT/GIS/MXDS/REPORTS/PER/PCE_CONTOURS.MXD 904021

Daniel B. Stephens & Associates, Inc.
12/04/2009 JN ES09.0306

GRIGGS-WALNUT PLUME
SUPERFUND REMEDIATION PROJECT

Area of Impacted Groundwater, 2007

Figure 1



Explanation

- City of Las Cruces supply well
- City of Las Cruces water reservoir
- Project planning area

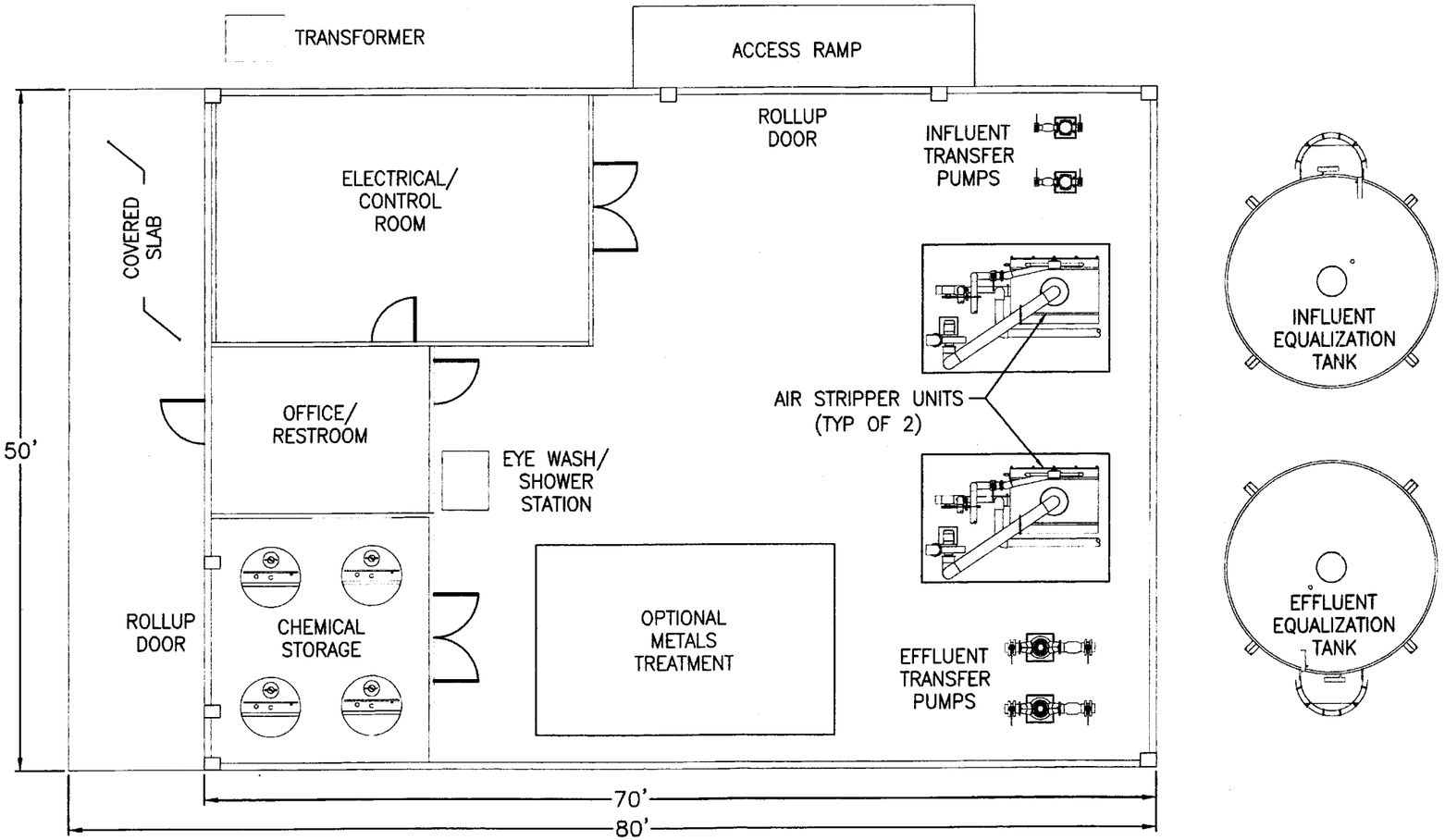
Source: National Agricultural Imagery Program
August 2009
Downloaded from RGIS

S:/PROJECTS/ES09.0306_GRIGGS-WALNUT/GIS/MXDS/SITE_MAPS/PROJECT AREA.MXD 904021

Daniel B. Stephens & Associates, Inc.
12/04/2009 JN ES09.0306

GRIGGS-WALNUT PLUME
SUPERFUND REMEDIATION PROJECT
Project Area

Figure 2



NORTH

0 10 ft

S:\Projects\ES09.0306_Griggs-Walnut\VR_Drawings\ES09_0036_01T6_Prelim_bldg_layout.dwg

Daniel B. Stephens & Associates, Inc.
11/25/2009 JN ES09.0306

GRIGGS–WALNUT PLUME
SUPERFUND REMEDIATION PROJECT
Preliminary Building Layout

Figure 8

Appendix B
Agency Responses

Marron
and Associates, Inc.

National Park Service reviewed this projec
determined that no parks will be affected.
refore, we have no comments
Signed: _____ Date: 1/8/09

7511 Fourth Street NW
Albuquerque, NM 87107
tel 505.898.8848
fax 505.897.7847
www.marroninc.com

December 7, 2009

National Park Service Intermountain Region
Attn: Roxanne Runkel
12795 Alameda Parkway
Denver, CO 80225

RE: Proposed Tetrachloroethylene (PCE) Water Treatment System – City of Las Cruces, New Mexico

The City of Las Cruces proposes to construct a water treatment system to remediate tetrachloroethylene (PCE) contamination found in ground water using a modified pump and treat strategy. The PCE contamination is encompassed in the Environmental Protection Agency (EPA) Griggs and Walnut Ground Water Plume Superfund Site. Documentation prepared for this Superfund Site includes the Remedial Investigation / Feasibility Study (RI/FS) finalized in November 2006, the Proposed Plan identifying the site remedy released in December 2006, and the Record of Decision (ROD) signed by EPA in June 2007.

The City of Las Cruces has applied for a loan from the Drinking Water Revolving Loan Fund, as administered by the New Mexico Finance Authority, for construction of a PCE water treatment system. Due to the fact that this loan program receives funding through federal capitalization grants, the NMFA requires compliance with the State Environmental Review Process as well as federal cross cutting authorities.

Marron and Associates is gathering information for an environmental review of the proposed project. The review process requires coordination with pertinent agencies, and your review and comment on the proposed project is an important element in the overall review. We have made an initial determination that this project will not have a significant environmental impact within the context of the National Environmental Policy Act (NEPA). If you disagree, please provide comments by **December 21, 2009.** If your office concurs with the initial determination or you have no comment, please complete and return a copy of the acknowledgement below. If we have not heard from you within the allotted time, we shall contact you by email or phone to ensure that your comments/no comments are included in the record.

If you have questions about this letter or need more information, please contact Peggy Ulman at peggy@marroninc.com or call (253)851-2417. Thank you for your assistance.

Sincerely,

Peggy Ulman
Marron and Associates, Inc.

ACKNOWLEDGEMENT:
As a representative for the referenced organization, the undersigned acknowledges receipt of this request for comment and, having reviewed the attached project summary and additional information, if provided, concurs with the initial determination or has no comments.

Signature and Title: _____ Date: _____

Las Cruces PCE Water Treatment System – PROJECT SUMMARY SHEET

Project Description: The proposed project involves the construction of infrastructure needed to provide a water treatment system to remove PCE contamination from the City of Las Cruces municipal ground water supply. The PCE contamination is encompassed in the Environmental Protection Agency (EPA) Griggs and Walnut Ground Water Plume Superfund Site. A Record of Decision (ROD) issued by the EPA in June 2007 outlines remedial actions to address the ground water contamination associated with this Site.

A Preliminary Engineering Report (PER) is being prepared by Daniel B. Stephens and Associates, under contract to the City of Las Cruces, for the proposed water treatment project. Two of the City's well sites (Well Nos. 18 and 27) have been identified as optimum locations for extraction wells. A treatment facility would be constructed in the vicinity of these well sites, most likely at the Well No. 18 site since there is available space at this well site. New pipelines would be constructed as necessary to convey the contaminated ground water from the extraction wells to the treatment facility. After treatment to remove PCE, the treated water would be blended with uncontaminated ground water at the existing Upper Griggs Reservoir.

The PER will evaluate the following treatment process alternatives for PCE removal at Well No. 18:

- Air Stripping
- Liquid-Phase Granular Activated Carbon (GAC) Adsorption
- Advanced Oxidation Process (AOP)

The PER, which is in the process of being prepared, will fully analyze and compare each of the alternatives.

In accordance with the National Environmental Policy Act (NEPA), the No-Build Alternative will also be considered as a baseline for comparison with other alternatives. Under the No-Build Alternative, the proposed water treatment facility would not be constructed.

Project Location: The planning area for the proposed project includes the location of supply wells Nos. 18 and 27, the existing City Repair Yard near the intersection of East Griggs Ave and Walnut St, and the Upper Griggs Reservoir. These components along with surrounding areas are shown in Figure 1. CLC Well No. 18 is located northwest of the intersection of East Griggs Avenue and North Walnut Street, between East Griggs and Hadley Avenue (on the north side of the Doña Ana County Transportation Department [DACTD] maintenance facility). The CLC Well No. 27 is located near the southeast corner of the East Griggs Avenue and North Walnut Street intersection. The Upper Griggs Reservoir is located at the intersection of East Griggs Avenue and North Triviz Drive. The total length of the planning area is approximately 3,400 feet from Well #18 to the Upper Griggs Reservoir.

Purpose and Need: The purpose of the proposed project is to remove PCE from contaminated ground water. Beginning in 1993, PCE was detected in two municipal drinking water wells in Las Cruces during routine water quality sampling. The Griggs and Walnut Ground Water Plume Superfund Site was added to EPA's National Priorities List (NPL) of Superfund sites in 2001. At the time of listing, four CLC municipal drinking water supply wells (CLC Well Nos. 18, 19, 21, and 27) were known to be affected by PCE contamination at concentrations above the Maximum Contaminant Level (MCL) of 5 micrograms per liter (µg/L).

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Subject: RE: Request for comments - Las Cruces water treatment project
From: "Sivinski, Robert, EMNRD" <robert.sivinski@state.nm.us>
Date: Mon, January 4, 2010 11:05 am
To: peggy@marroninc.com
Priority: Normal
Options: View Full Header | View Printable Version | Download this as a file

Looks like most of the project is already disturbed. No federally-listed threatened or endangered plant species would be there.

Robert Sivinski
Endangered Species Botanist
EMNRD-Forestry Division

-----Original Message-----
From: peggy@marroninc.com [mailto:peggy@marroninc.com]
Sent: Monday, January 04, 2010 10:38 AM
To: Sivinski, Robert, EMNRD
Subject: Request for comments - Las Cruces water treatment project

Mr. Sivinski,

Please see attached information regarding a proposed water treatment facility in Las Cruces, NM. Your response will be greatly appreciated.

Thank you,

Peggy Ulman
Marron and Associates, Inc.
7511 Fourth Street NW
Albuquerque, NM 87107

Fax - 505-897-7847

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

December 15, 2009

Ms. Peggy Ulman
Marron and Associates, Inc.
7511 Fourth St. NW
Albuquerque, NM 87107

Dear Ms. Ulman:

We have received your December 7, 2009, letter requesting our evaluation of the potential environmental impacts which might result from the following project:

Construction of Tetrachloroethylene
Water Treatment System
Doña Ana County
Las Cruces, New Mexico

In administering the sole source aquifer (SSA) program under Section 1424 of the Safe Drinking Water Act our Office performs evaluations of projects with federal financial assistance which are located over a designated sole source aquifer.

Based on the information provided, we have concluded that the project does not lie within the boundaries of a designated sole source aquifer and is thus not eligible for review under the SSA program.

If you did not include the Parish/County; a legal description; project location and the latitude and longitude if available, please do so in future Sole Source Aquifer correspondence. To view a map of the Sole Source Aquifer delineation(s) for your state go to the following website. http://www.epa.gov/region6/water/swp/ssa/maps.htm

If you have any questions on this letter or the sole source aquifer program please contact me at (214) 665-7133.

Sincerely yours,

Michael Bechdol, Coordinator
Sole Source Aquifer Program
Ground Water/UIC Section

cc: Bill Olsen, NMED

NEW MEXICO
ENVIRONMENT DEPARTMENT

Office of the Secretary

BILL RICHARDSON
Governor

Harold Runnels Building
1190 Saint Francis Drive (87505)
PO Box 5469, Santa Fe, NM 87502-5469
Phone (505) 827-2855 Fax (505) 827-2836
www.nmenv.state.nm.us

RON CURRY
Secretary
Jon Goldstein
Deputy Secretary

December 28, 2009

Peggy Ulman
Marron and Associates, Inc.
7511 Fourth Street, NW
Albuquerque, NM 87107

RE: Proposed Tetrachloroethylene (PCE) Water Treatment System, City of Las Cruces

Dear Ms. Ulman:

Your letter regarding the above named project was received in the New Mexico Environment Department (NMED) and was sent to various Bureaus for review and comment. Comments were provided by the Ground Water Quality and Surface Water Quality Bureaus and are as follows.

Ground Water Quality Bureau
The Ground Water Quality Bureau (GWQB) staff reviewed the above-referenced letter as requested, focusing specifically on the potential effect to ground water resources in the area of the proposed project. The proposed project involves construction of infrastructure needed to provide a water treatment system to remove PCE contamination from the City of Las Cruces municipal ground water supply.

It is unlikely that implementation of this project would have any adverse effect on ground water quality in the area. However, the project is likely to involve the use of heavy equipment, thereby leading to the possibility of contaminant releases (e.g., fuel, hydraulic fluid, etc.) associated with heavy equipment malfunctions. The GWQB advises all parties involved in the project to be aware of discharge notification requirements contained in 20.6.2.1203 NMAC. Compliance with the notification and response requirements will ensure the protection of ground water quality in the vicinity of the project.

In consideration of the project's proximity to the Griggs and Walnut Ground Water Plume Superfund Site, GWQB recommends that the City or their contractors monitor volatile organic compound (VOC) headspace concentrations during excavation activities as a precautionary measure for the following reasons. The proposed water treatment system and associated pipelines are located within the footprint of a Superfund site which is a potential PCE release

area where PCE soil vapor concentrations ranging from 3 to 10 µg/L were detected during a 2002 source investigation (see attached Figure 4-1). VOC headspace screening would be performed concurrent with the excavation activities and would offer extra precaution for worker health and safety.

In addition to the required utility clearances for safe excavation work. GWQB respectfully requests that a concerted effort be made to protect the integrity and accessibility of any existing ground water monitoring wells associated with the monitoring network at the Griggs and Walnut Superfund site.

Surface Water Quality Bureau
The U.S. Environmental Protection Agency (USEPA) requires National Pollutant Discharge Elimination System (NPDES) permit coverage for storm water discharges from construction projects (common plans of development) that will result in the disturbance (or re-disturbance) of one or more acres (as of June 30, 2008), including expansions, of total land area If this project exceeds one acre, it requires appropriate NPDES permit coverage prior to beginning construction.

Among other things, this permit requires that a Storm Water Pollution Prevention Plan (SWPPP) be prepared for the site and that appropriate Best Management Practices (BMPs) be installed and maintained both during and after construction to prevent, to the extent practicable, pollutants (primarily sediment, oil & grease and construction materials from construction sites) in storm water runoff from entering waters of the U.S. This permit also requires that permanent stabilization measures (revegetation, paving, etc.), and permanent storm water management measures (storm water detention/retention structures, velocity dissipation devices, etc.) be implemented post construction to minimize, in the long term, pollutants in storm water runoff from entering these waters.

You should also be aware that EPA requires that all "operators" (see **Federal Register/Vol. 63, No. 128/Monday, July 6, 1998** pg 36509) obtain NPDES permit coverage for construction projects. Generally, this means that at least two parties will require permit coverage. The owner/developer of this construction project who has operational control over project specifications (probably the City of Las Cruces in this case), the general contractor who has day-to-day operational control of those activities at the site, which are necessary to ensure compliance with the storm water pollution plan and other permit conditions, and possibly other "operators" will require appropriate NPDES permit coverage for this project.

I hope this information is helpful to you.

Sincerely,

Georgia Cleverley

Georgia Cleverley
Environmental Impact Review Coordinator
NMED File #3108

United States Department of Agriculture

NRCS
Natural Resources Conservation Service
6200 Jefferson NE, Room 305
Albuquerque, NM 87109
Phone: (505) 761-4400 Fax: (505) 761-4462
Website: www.nm.nrcs.usda.gov

December 21, 2009

Ms. Peggy Ulman
Marron and Associates, Inc.
7511 Fourth Street NW
Albuquerque, New Mexico 87107

Dear Ms. Ulman:

We have received your request for review and comment on the Proposed Tetrachloroethylene Water Treatment System, City of Las Cruces, New Mexico. There is no prime or unique farmland in the project area. The Natural Resources Conservation Service has no objections to the proposed project.

Thank you for the opportunity to comment.

Sincerely,

Lambert L. Garcia-Jr, Acting

for DENNIS L. ALEXANDER
State Conservationist

Marron
and Associates, Inc.

7511 Fourth Street NW
Albuquerque, NM 87107
tel 505.898.8848
fax 505.897.7847

www.marroninc.com

RECEIVED

DEC 8 2009

OFFICE OF THE STATE ENGINEER

December 7, 2009

Office of the State Engineer
Attn: John D'Antonio
PO Box 25102
Santa Fe, NM 87504

RE: Proposed Tetrachloroethylene (PCE) Water Treatment System – City of Las Cruces, New Mexico

The City of Las Cruces proposes to construct a water treatment system to remediate tetrachloroethylene (PCE) contamination found in ground water using a modified pump and treat strategy. The PCE contamination is encompassed in the Environmental Protection Agency (EPA) Griggs and Walnut Ground Water Plume Superfund Site. Documentation prepared for this Superfund Site includes the Remedial Investigation / Feasibility Study (RI/FS) finalized in November 2006, the Proposed Plan identifying the site remedy released in December 2006, and the Record of Decision (ROD) signed by EPA in June 2007.

The City of Las Cruces has applied for a loan from the Drinking Water Revolving Loan Fund, as administered by the New Mexico Finance Authority, for construction of a PCE water treatment system. Due to the fact that this loan program receives funding through federal capitalization grants, the NMFA requires compliance with the State Environmental Review Process as well as federal cross cutting authorities.

Marron and Associates is gathering information for an environmental review of the proposed project. The review process requires coordination with pertinent agencies, and your review and comment on the proposed project is an important element in the overall review. We have made an initial determination that this project will not have a significant environmental impact within the context of the National Environmental Policy Act (NEPA). If you disagree, please provide comments by **December 21, 2009.** If your office concurs with the initial determination or you have no comment, please complete and return a copy of the acknowledgement below. If we have not heard from you within the allotted time, we shall contact you by email or phone to ensure that your comments/no comments are included in the record.

If you have questions about this letter or need more information, please contact Peggy Ulman at peggy@marroninc.com or call (253)851-2417. Thank you for your assistance.

RECEIVED
2009 DEC 28 AM 11:22
STATE ENGINEER
LAS CRUCES, NEW MEXICO

Sincerely,

Peggy Ulman
Marron and Associates, Inc.

ACKNOWLEDGEMENT:
As a representative for the referenced organization, the undersigned acknowledges receipt of this request for comment and, having reviewed the attached project summary and additional information, if provided, concurs with the initial determination or has no comments.

Signature and Title: _____ Date: Dec 28, 2009

DEPARTMENT OF THE ARMY
ALBUQUERQUE DISTRICT, CORPS OF ENGINEERS
El Paso Regulatory Office
P.O. Box 6096
Fort Bliss, Texas 79906-0236
915-772-2784
FAX 915-843-2106

January 6, 2010

REPLY TO
ATTENTION OF:

Regulatory Division
New Mexico/Texas Branch

SUBJECT: Action No. SPA-2009-00742-ELP, Tetrachloroethylene (PCE) Water Treatment System City of Las Cruces, New Mexico

Peggy Ulman
Marion and Associates Inc.
7511 Fourth Street NW
Albuquerque, New Mexico 87107

Dear Ms. Ulman:

The U.S. Army Corps of Engineers (Corps) is in receipt of your letter dated December 7, 2009 concerning a proposal by the City of Las Cruces to construct a water treatment system to remediate PCE contamination found in ground water, and a pipeline conveyance along Griggs Avenue located in the City of Las Cruces, Dona Ana County New Mexico. This activity involves construction of a water pipeline and PCE treatment system in the vicinity of well numbers 18, 19, 21, and 27 near Griggs Avenue. We have assigned Action No. SPA-2009-00742-ELP to this activity. To avoid delay, please include this number in all future correspondence concerning this project.

We have reviewed this project in accordance with Section 404 of the Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act of 1899 (RHA). Under Section 404, the Corps regulates the discharge of dredged and fill material into waters of the United States, including wetlands. The Corps responsibility under Section 10 is to regulate any work in, or affecting, navigable waters of the United States. Based on your description of the proposed work, other information available to us, and current regulations and policy, we have determined that this project will not involve any of the above activities. Therefore, it will not require Department of the Army authorization under the above laws. However, it is incumbent upon you to remain informed of any

changes in the Corps Regulatory Program regulations and policy as they relate to your project.

The Corps based this decision on an approved jurisdictional determination (JD) that there are no waters of the United States on the project site. The basis for this approved JD is that the project site contains upland drainage ditches. The JD form is available at http://www.spa.usace.army.mil/reg/Jurisdictional_Determinations/jurisdictional_determinations.asp. This approved JD is valid for a period of no more than five years from the date of this letter unless new information warrants revision of the delineation before the expiration date.

You may accept or appeal this approved JD or provide new information in accordance with the Notification of Administration Appeal Options and Process and Request For Appeal (NAAOP-RFA). This form is available at http://www.spa.usace.army.mil/reg/Administrative%20Appeals/appeals_process.asp. If you elect to appeal this approved JD, you must complete Section II (Request For Appeal or Objections to an Initial Proffered Permit) of the form and return it to the Army Engineer Division, South Pacific, CESPD-PDS-O, Attn: Tom Cavanaugh, Administrative Appeal Review Officer, 1455 Market Street, Room 1760, San Francisco, CA 94103-1399 within 60 days of the date of this notice. Failure to notify the Corps within 60 days of the date of this notice means that you accept the approved JD in its entirety and waive all rights to appeal the approved JD.

If you have any questions concerning our regulatory program, please contact me at 915-772-2784 or by e-mail at richard.h.gatewood@usace.army.mil. At your convenience, please complete a Customer Service Survey on-line available at http://per2.nwp.usace.army.mil/survey.html.

Sincerely,

Richard Gatewood
Regulatory Manager

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): December 30, 2009

B. DISTRICT OFFICE, FILE NAME, AND NUMBER:CESPA-RD, SPA-2009- 00742-ELP Tetrachloroethylene (PCE) Water Treatment System City of Las Cruces, New Mexico

C. PROJECT LOCATION AND BACKGROUND INFORMATION:
State:New Mexico County/parish/borough: Dona Ana City: Las Cruces
Center coordinates of site (lat/long in degree decimal format): Lat. 32.31415° **N**, Long. -106.76310° **W**.
Universal Transverse Mercator:
Name of nearest waterbody: Rio Grande
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows:
Name of watershed or Hydrologic Unit Code (HUC):
☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.
☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc…) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):
☒ Office (Desk) Determination. Date: January 4, 2010
☐ Field Determination. Date(s):

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** *"navigable waters of the U.S."* within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [*Required*]
☐ Waters subject to the ebb and flow of the tide.
☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
Explain: .

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **Are no** *"waters of the U.S."* within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [*Required*]

1. **Waters of the U.S.**
   a. **Indicate presence of waters of U.S. in review area (check all that apply):** [1]
      ☐ TNWs, including territorial seas
      ☐ Wetlands adjacent to TNWs
      ☐ Relatively permanent waters[2] (RPWs) that flow directly or indirectly into TNWs
      ☐ Non-RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
      ☐ Impoundments of jurisdictional waters
      ☐ Isolated (interstate or intrastate) waters, including isolated wetlands

   b. **Identify (estimate) size of waters of the U.S. in the review area:**
      Non-wetland waters: linear feet: width (ft) and/or acres.
      Wetlands: acres.

   c. **Limits (boundaries) of jurisdiction** based on: **Pick List**
      Elevation of established OHWM (if known): .

2. **Non-regulated waters/wetlands (check if applicable):**[3]
   ☐ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
   Explain: .

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[1] Boxes checked below shall be supported by completing the appropriate sections in Section III below.
[2] For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).
[3] Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. **TNW**
   Identify TNW: .

   Summarize rationale supporting determination: .

2. **Wetland adjacent to TNW**
   Summarize rationale supporting conclusion that wetland is "adjacent": .

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody[4] is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. **Characteristics of non-TNWs that flow directly or indirectly into TNW**

   (i) **General Area Conditions:**
   Watershed size: **Pick List**
   Drainage area: **Pick List**
   Average annual rainfall: inches
   Average annual snowfall: inches

   (ii) **Physical Characteristics:**
   (a) Relationship with TNW:
   ☐ Tributary flows directly into TNW.
   ☐ Tributary flows through **Pick List** tributaries before entering TNW.

   Project waters are **Pick List** river miles from TNW.
   Project waters are **Pick List** river miles from RPW.
   Project waters are **Pick List** aerial (straight) miles from TNW.
   Project waters are **Pick List** aerial (straight) miles from RPW.
   Project waters cross or serve as state boundaries. Explain: .

   Identify flow route to TNW[5]: .
   Tributary stream order, if known: .

[4] Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.
[5] Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

(b) General Tributary Characteristics (check all that apply):

Tributary is: ☐ Natural
☐ Artificial (man-made). Explain: .
☐ Manipulated (man-altered). Explain: .

Tributary properties with respect to top of bank (estimate):
Average width: feet
Average depth: feet
Average side slopes: **Pick List.**

Primary tributary substrate composition (check all that apply):

☐ Silts	☐ Sands	☐ Concrete
☐ Cobbles	☐ Gravel	☐ Muck
☐ Bedrock	☐ Vegetation. Type/% cover:	
☐ Other. Explain: .		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: .
Presence of run/riffle/pool complexes. Explain: .
Tributary geometry: **Pick List**
Tributary gradient (approximate average slope): %

(c) Flow:

Tributary provides for: **Pick List**
Estimate average number of flow events in review area/year: **Pick List**
Describe flow regime: .
Other information on duration and volume: .

Surface flow is: **Pick List.** Characteristics: .

Subsurface flow: **Pick List**. Explain findings: .
☐ Dye (or other) test performed: .

Tributary has (check all that apply):
☐ Bed and banks
☐ OHWM[6] (check all indicators that apply):

☐ clear, natural line impressed on the bank	☐ the presence of litter and debris
☐ changes in the character of soil	☐ destruction of terrestrial vegetation
☐ shelving	☐ the presence of wrack line
☐ vegetation matted down, bent, or absent	☐ sediment sorting
☐ leaf litter disturbed or washed away	☐ scour
☐ sediment deposition	☐ multiple observed or predicted flow events
☐ water staining	☐ abrupt change in plant community
☐ other (list):	

☐ Discontinuous OHWM.[7] Explain: .

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

☐ High Tide Line indicated by:	☐ Mean High Water Mark indicated by:
☐ oil or scum line along shore objects	☐ survey to available datum;
☐ fine shell or debris deposits (foreshore)	☐ physical markings;
☐ physical markings/characteristics	☐ vegetation lines/changes in vegetation types.
☐ tidal gauges	
☐ other (list):	

(iii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).
Explain: .
Identify specific pollutants, if known: .

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[6]A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.
[7]Ibid.

(iv) Biological Characteristics. Channel supports (check all that apply):

- ☐ Riparian corridor. Characteristics (type, average width): .
- ☐ Wetland fringe. Characteristics: .
- ☐ Habitat for:
  - ☐ Federally Listed species. Explain findings: .
  - ☐ Fish/spawn areas. Explain findings: .
  - ☐ Other environmentally-sensitive species. Explain findings: .
  - ☐ Aquatic/wildlife diversity. Explain findings: .

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:

(a) General Wetland Characteristics:

Properties:

Wetland size: acres

Wetland type. Explain: .

Wetland quality. Explain: .

Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:

Flow is: **Pick List**. Explain: .

Surface flow is: **Pick List**

Characteristics: .

Subsurface flow: **Pick List**. Explain findings: .

- ☐ Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:

- ☐ Directly abutting
- ☐ Not directly abutting
  - ☐ Discrete wetland hydrologic connection. Explain: .
  - ☐ Ecological connection. Explain: .
  - ☐ Separated by berm/barrier. Explain: .

(d) Proximity (Relationship) to TNW

Project wetlands are **Pick List** river miles from TNW.

Project waters are **Pick List** aerial (straight) miles from TNW.

Flow is from: **Pick List.**

Estimate approximate location of wetland as within the **Pick List** floodplain.

(ii) Chemical Characteristics:

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: .

Identify specific pollutants, if known: .

(iii) Biological Characteristics. Wetland supports (check all that apply):

- ☐ Riparian buffer. Characteristics (type, average width): .
- ☐ Vegetation type/percent cover. Explain: .
- ☐ Habitat for:
  - ☐ Federally Listed species. Explain findings: .
  - ☐ Fish/spawn areas. Explain findings: .
  - ☐ Other environmentally-sensitive species. Explain findings: .
  - ☐ Aquatic/wildlife diversity. Explain findings: .

3. Characteristics of all wetlands adjacent to the tributary (if any)

All wetland(s) being considered in the cumulative analysis: **Pick List**

Approximately ( ) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)

Summarize overall biological, chemical and physical functions being performed: .

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D: .

2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .

3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
   - ☐ TNWs: linear feet width (ft), Or, acres.
   - ☐ Wetlands adjacent to TNWs: acres.

2. **RPWs that flow directly or indirectly into TNWs.**
   - ☐ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: .
   - ☐ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: .

Provide estimates for jurisdictional waters in the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .

3. **Non-RPWs[8] that flow directly or indirectly into TNWs.**
☐ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .

4. **Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.**
☐ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
☐ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

☐ Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

5. **Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.**
☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

6. **Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.**
☐ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: acres.

7. **Impoundments of jurisdictional waters.[9]**
As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.
☐ Demonstrate that impoundment was created from "waters of the U.S.," or
☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):[10]
☐ which are or could be used by interstate or foreign travelers for recreational or other purposes.
☐ from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
☐ which are or could be used for industrial purposes by industries in interstate commerce.
☐ Interstate isolated waters. Explain: .
☐ Other factors. Explain: .

Identify water body and summarize rationale supporting determination: .

---

[8]See Footnote # 3.
[9] To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.
[10] **Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA *Memorandum Regarding CWA Act Jurisdiction Following Rapanos.***

Provide estimates for jurisdictional waters in the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .
☐ Wetlands: acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):
☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
☐ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
☐ Prior to the Jan 2001 Supreme Court decision in "*SWANCC*," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
☐ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: .
☐ Other: (explain, if not covered above): .

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):
☐ Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):
☐ Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):
☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: letter dated August 17, 2009 from Santa Teresa Airport with map figures.
☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
☒ Office concurs with data sheets/delineation report.
☐ Office does not concur with data sheets/delineation report.
☐ Data sheets prepared by the Corps: .
☐ Corps navigable waters' study: .
☐ U.S. Geological Survey Hydrologic Atlas: .
☐ USGS NHD data.
☐ USGS 8 and 12 digit HUC maps.
☒ U.S. Geological Survey map(s). Cite scale & quad name: 7.5 minute San Simon Ranch, NM.
☐ USDA Natural Resources Conservation Service Soil Survey. Citation: .
☐ National wetlands inventory map(s). Cite name: .
☐ State/Local wetland inventory map(s): .
☐ FEMA/FIRM maps: .
☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
☐ Photographs: ☐ Aerial (Name & Date): .
or ☐ Other (Name & Date): .
☐ Previous determination(s). File no. and date of response letter: .
☐ Applicable/supporting case law: .
☐ Applicable/supporting scientific literature: .
☐ Other information (please specify): .

B. ADDITIONAL COMMENTS TO SUPPORT JD: Site does not contain any water features exhibiting established bed and bank, or an ordinary high water mark. Site is composed entirely of uplands with only minor upland drainage features of sheet flow, road side ditches, and reels.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Mexico Ecological Services Field Office
2105 Osuna NE
Albuquerque, New Mexico 87113
Phone: (505) 346-2525 Fax: (505) 346-2542

DEC 14 2009

Thank you for your recent request for information on threatened or endangered species or important wildlife habitats that may occur in your project area. The New Mexico Ecological Services Field Office has posted lists of the endangered, threatened, proposed, candidate and species of concern occurring in all New Mexico Counties on the Internet. Please refer to the following web page for species information in the county where your project occurs: http://www.fws.gov/southwest/es/NewMexico/SBC_intro.cfm. If you do not have access to the Internet or have difficulty obtaining a list, please contact our office and we will mail or fax you a list as soon as possible.

After opening the web page, find New Mexico Listed and Sensitive Species Lists on the main page and click on the county of interest. Your project area may not necessarily include all or any of these species. This information should assist you in determining which species may or may not occur within your project area.

Under the Endangered Species Act of 1973, as amended (Act), it is the responsibility of the Federal action agency or its designated representative to determine if a proposed action "may affect" endangered, threatened, or proposed species, or designated critical habitat, and if so, to consult with us further. Similarly, it is their responsibility to determine if a proposed action has no effect to endangered, threatened, or proposed species, or designated critical habitat. On December 16, 2008, we published a final rule concerning clarifications to section 7 consultations under the Act (73 FR 76272). One of the clarifications is that section 7 consultation is not required in those instances when the direct and indirect effects of an action pose no effect to listed species or critical habitat. As a result, we do not provide concurrence with project proponent's "no effect" determinations.

If your action area has suitable habitat for any of these species, we recommend that species-specific surveys be conducted during the flowering season for plants and at the appropriate time for wildlife to evaluate any possible project-related impacts. Please keep in mind that the scope of federally listed species compliance also includes any interrelated or interdependent project activities (e.g., equipment staging areas, offsite borrow material areas, or utility relocations) and any indirect or cumulative effects.

Candidates and species of concern have no legal protection under the Act and are included on the web site for planning purposes only. We monitor the status of these species. If significant declines are detected, these species could potentially be listed as endangered or threatened. Therefore, actions that may contribute to their decline should be avoided. We recommend that candidates and species of concern be included in your surveys.

Also on the web site, we have included additional wildlife-related information that should be considered if your project is a specific type. These include communication towers, power line safety for raptors, road and highway improvements and/or construction, spring developments and livestock watering facilities, wastewater facilities, and trenching operations.

Under Executive Orders 11988 and 11990, Federal agencies are required to minimize the destruction, loss, or degradation of wetlands and floodplains, and preserve and enhance their natural and beneficial values. We recommend you contact the U.S. Army Corps of Engineers for permitting requirements under section 404 of the Clean Water Act if your proposed action could impact floodplains or wetlands. These habitats should be conserved through avoidance, or mitigated to ensure no net loss of wetlands function and value.

The Migratory Bird Treaty Act (MBTA) prohibits the taking of migratory birds, nests, and eggs, except as permitted by the U.S. Fish and Wildlife Service. To minimize the likelihood of adverse impacts to all birds protected under the MBTA, we recommend construction activities occur outside the general migratory bird nesting season of March through August, or that areas proposed for construction during the nesting season be surveyed, and when occupied, avoided until nesting is complete.

We suggest you contact the New Mexico Department of Game and Fish, and the New Mexico Energy, Minerals, and Natural Resources Department, Forestry Division for information regarding fish, wildlife, and plants of State concern.

Thank you for your concern for endangered and threatened species and New Mexico's wildlife habitats. We appreciate your efforts to identify and avoid impacts to listed and sensitive species in your project area.

Sincerely,

Wally Murphy
Field Supervisor

Then - Please FW to Joel Thanks

Marron and Associates, Inc.

7511 Fourth Street NW
Albuquerque, NM 87107
tel 505.898.8848
fax 505.897.7847
www.marroninc.com

December 7, 2009

RECEIVED
DEC 08 2009
USFWS-NMESFO

US Fish and Wildlife Service, New Mexico Ecological Field Services
Attn: Wally Murphy, Field Supervisor
2105 Osuna NE
Albuquerque, NM 87113

RE: Proposed Tetrachloroethylene (PCE) Water Treatment System - City of Las Cruces, New Mexico

The City of Las Cruces proposes to construct a water treatment system to remediate tetrachloroethylene (PCE) contamination found in ground water using a modified pump and treat strategy. The PCE contamination is encompassed in the Environmental Protection Agency (EPA) Griggs and Walnut Ground Water Plume Superfund Site. Documentation prepared for this Superfund Site includes the Remedial Investigation / Feasibility Study (RI/FS) finalized in November 2006, the Proposed Plan identifying the site remedy released in December 2006, and the Record of Decision (ROD) signed by EPA in June 2007.

The City of Las Cruces has applied for a loan from the Drinking Water Revolving Loan Fund, as administered by the New Mexico Finance Authority, for construction of a PCE water treatment system. Due to the fact that this loan program receives funding through federal capitalization grants, the NMFA requires compliance with the State Environmental Review Process as well as federal cross cutting authorities.

Marron and Associates is gathering information for an environmental review of the proposed project. The review process requires coordination with pertinent agencies, and your review and comment on the proposed project is an important element in the overall review. We have made an initial determination that this project will not have a significant environmental impact within the context of the National Environmental Policy Act (NEPA). If you disagree, please provide comments by **December 21, 2009.** If your office concurs with the initial determination or you have no comment, please complete and return a copy of the acknowledgement below. If we have not heard from you within the allotted time, we shall contact you by email or phone to ensure that your comments/no comments are included in the record.

If you have questions about this letter or need more information, please contact Peggy Ulman at peggy@marroninc.com or call (253)851-2417. Thank you for your assistance.

Sincerely,

Shelly Dulo87

for Peggy Ulman
Marron and Associates, Inc.

ACKNOWLEDGEMENT:
As a representative for the referenced organization, the undersigned acknowledges receipt of this request for comment and, having reviewed the attached project summary and additional information, if provided, concurs with the initial determination or has no comments.

Signature and Title: ______________________ Date: ____________

Appendix C
Sample of Agency Consultation Letter and Tribal Consultation Letter

Las Cruces PCE Water Treatment System – PROJECT SUMMARY SHEET

Project Description: The proposed project involves the construction of infrastructure needed to provide a water treatment system to remove PCE contamination from the City of Las Cruces municipal ground water supply. The PCE contamination is encompassed in the Environmental Protection Agency (EPA) Griggs and Walnut Ground Water Plume Superfund Site. A Record of Decision (ROD) issued by the EPA in June 2007 outlines remedial actions to address the ground water contamination associated with this Site.

A Preliminary Engineering Report (PER) is being prepared by Daniel B. Stephens and Associates, under contract to the City of Las Cruces, for the proposed water treatment project. Two of the City's well sites (Well Nos. 18 and 27) have been identified as optimum locations for extraction wells. A treatment facility would be constructed in the vicinity of these well sites, most likely at the Well No. 18 site since there is available space at this well site. New pipelines would be constructed as necessary to convey the contaminated ground water from the extraction wells to the treatment facility. After treatment to remove PCE, the treated water would be blended with uncontaminated ground water at the existing Upper Griggs Reservoir.

The PER will evaluate the following treatment process alternatives for PCE removal at Well No. 18:

- Air Stripping
- Liquid-Phase Granular Activated Carbon (GAC) Adsorption
- Advanced Oxidation Process (AOP)

The PER, which is in the process of being prepared, will fully analyze and compare each of the alternatives.

In accordance with the National Environmental Policy Act (NEPA), the No-Build Alternative will also be considered as a baseline for comparison with other alternatives. Under the No-Build Alternative, the proposed water treatment facility would not be constructed.

Project Location: The planning area for the proposed project includes the location of supply wells Nos. 18 and 27, the existing City Repair Yard near the intersection of East Griggs Ave and Walnut St, and the Upper Griggs Reservoir. These components along with surrounding areas are shown in Figure 1. CLC Well No. 18 is located northwest of the intersection of East Griggs Avenue and North Walnut Street, between East Griggs and Hadley Avenue (on the north side of the Doña Ana County Transportation Department [DACTD] maintenance facility). The CLC Well No. 27 is located near the southeast corner of the East Griggs Avenue and North Walnut Street intersection. The Upper Griggs Reservoir is located at the intersection of East Griggs Avenue and North Triviz Drive. The total length of the planning area is approximately 3,400 feet from Well #18 to the Upper Griggs Reservoir.

Purpose and Need: The purpose of the proposed project is to remove PCE from contaminated ground water. Beginning in 1993, PCE was detected in two municipal drinking water wells in Las Cruces during routine water quality sampling. The Griggs and Walnut Ground Water Plume Superfund Site was added to EPA's National Priorities List (NPL) of Superfund sites in 2001. At the time of listing, four CLC municipal drinking water supply wells (CLC Well Nos. 18, 19, 21, and 27) were known to be affected by PCE contamination at concentrations above the Maximum Contaminant Level (MCL) of 5 micrograms per liter (µg/L).

Marron
and Associates, Inc.

7511 Fourth Street NW
Albuquerque, NM 87107
tel 505.898.8848
fax 505.897.7847

www.marroninc.com

December 7, 2009

«agency»
«contact»
«address»
«citystatezip»

RE: Proposed Tetrachloroethylene (PCE) Water Treatment System – City of Las Cruces, New Mexico

The City of Las Cruces proposes to construct a water treatment system to remediate tetrachloroethylene (PCE) contamination found in ground water using a modified pump and treat strategy. The PCE contamination is encompassed in the Environmental Protection Agency (EPA) Griggs and Walnut Ground Water Plume Superfund Site. Documentation prepared for this Superfund Site includes the Remedial Investigation / Feasibility Study (RI/FS) finalized in November 2006, the Proposed Plan identifying the site remedy released in December 2006, and the Record of Decision (ROD) signed by EPA in June 2007.

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Marron and Associates is gathering information for an environmental review of the proposed project. The review process requires coordination with pertinent agencies, and your review and comment on the proposed project is an important element in the overall review. We have made an initial determination that this project will not have a significant environmental impact within the context of the National Environmental Policy Act (NEPA). If you disagree, please provide comments by **December 21, 2009.** If your office concurs with the initial determination or you have no comment, please complete and return a copy of the acknowledgement below. If we have not heard from you within the allotted time, we shall contact you by email or phone to ensure that your comments/no comments are included in the record.

If you have questions about this letter or need more information, please contact Peggy Ulman at peggy@marroninc.com or call (253)851-2417. Thank you for your assistance.

Sincerely,

Peggy Ulman
Marron and Associates, Inc.

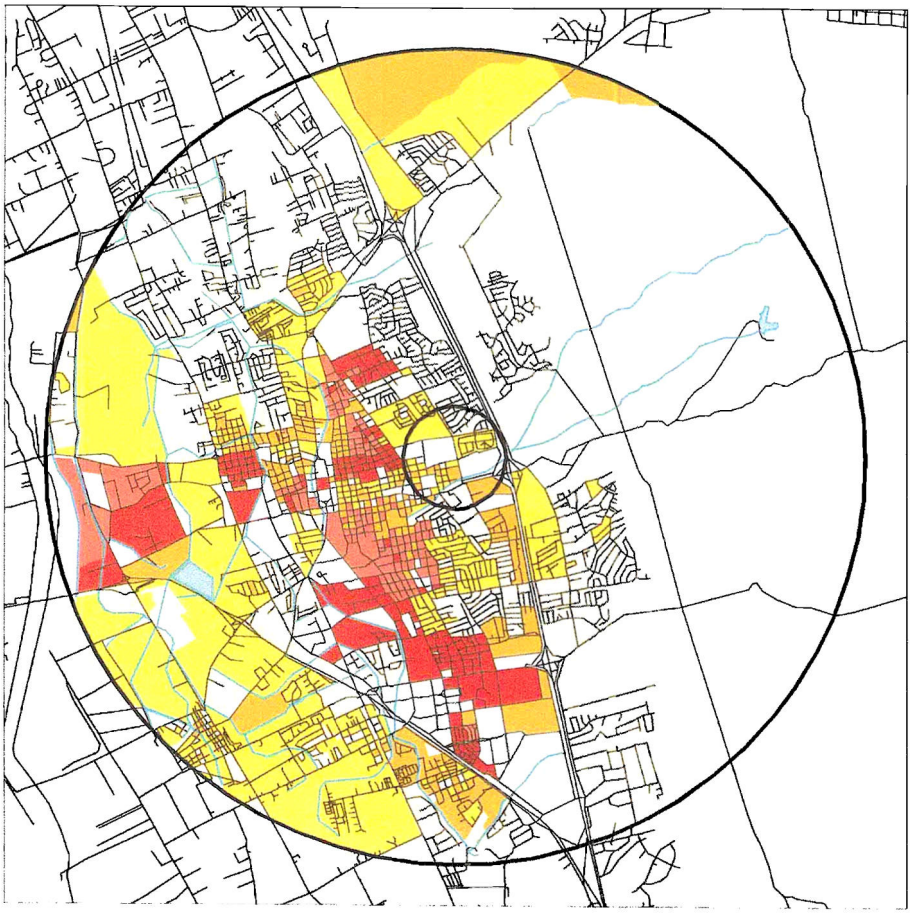
ACKNOWLEDGEMENT:
As a representative for the referenced organization, the undersigned acknowledges receipt of this request for comment and, having reviewed the attached project summary and additional information, if provided, concurs with the initial determination or has no comments.

Signature and Title: _____ Date: _____

Appendix D
EPA Potential Environmental Justice Index

Las Cruces Water Treatment, Dona Ana County, NM

Economic Status - Degree of Vulnerability (DVECO)



Longitude: -106 45 23 Latitude: 32 18 55

Percent Economically Stressed
by Census Block Group
State Percentage = 31

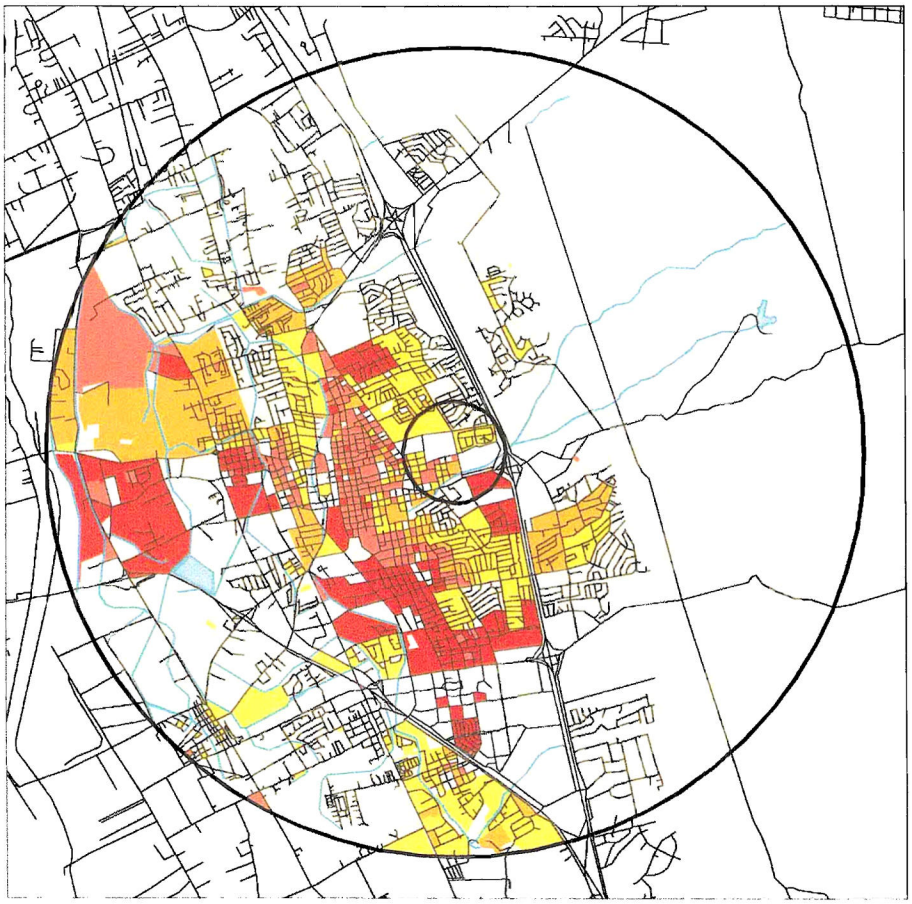
- <= the State Percentage
- > the State Percentage, <= 1.33 times the State Percentage
- > 1.33 times the State Percentage, <= 1.66 times the State Percentage
- > 1.66 times the State Percentage, <= 2 times the State Percentage
- > 2 times the State Percentage

Potential Environmental Justice Index for Two Study Areas	1 Sq. M
Total Population	2631
Population Ranking (PF)	3
Percent Minority	59.2
Minority Status (DVMAV)	2
Percent Economically Stressed	28.3
Economic Status (DVECO)	1
Environmental Justice Index	6

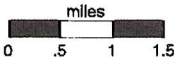
Data Sources and References: US Bureau of the Census, 1990 PL94-171 and STF3A Data, and TIGER Files
US EPA Region 6, 1992. Computer Assisted Environmental Assessment Methodologies, Chapter V. Special Applications, Environmental Equity. Planning and Analysis Section, Management Division, Region 6 EPA, Dallas, Texas

Las Cruces Water Treatment, Dona Ana County, NM

Economic Status - Degree of Vulnerability (DVECO)



Longitude: -106 45 23 Latitude: 32 18 55



Percent Economically Stressed
by Census Block Group
State Percentage = 28.7

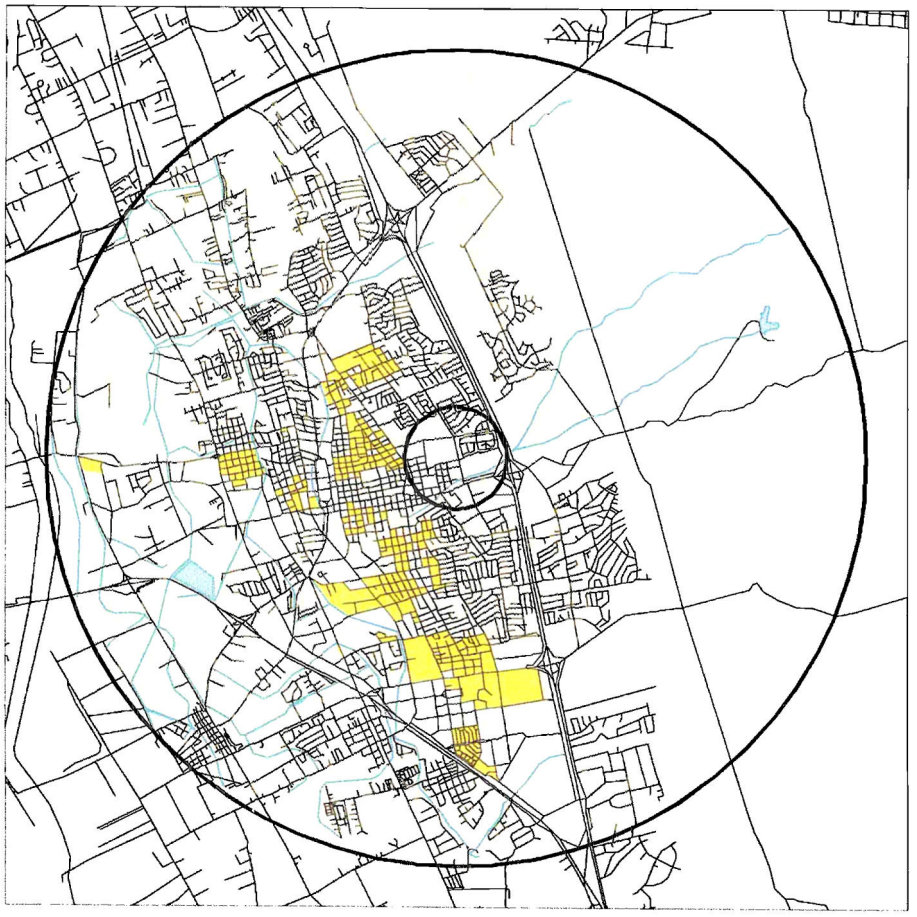
- <= the State Percentage
- > the State Percentage, <= 1.33 times the State Percentage
- > 1.33 times the State Percentage, <= 1.66 times the State Percentage
- > 1.66 times the State Percentage, <= 2 times the State Percentage
- > 2 times the State Percentage

Potential Environmental Justice Index for Two Study Areas	1 Sq. M
Total Population	2697
Population Ranking (PF)	3
Percent Minority	67.7
Minority Status (DVMAV)	2
Percent Economically Stressed	31.2
Economic Status (DVECO)	2
Environmental Justice Index	12

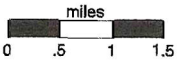
Data Sources and References: US Bureau of the Census, 2000 PL94-171, SF3 Data, and TIGER Files
US EPA Region 6, 1992. Computer Assisted Environmental Assessment Methodologies, Chapter V. Special Applications
Environmental Equity. Planning and Analysis Section, Management Division, Region 6 EPA, Dallas, Texas

Las Cruces Water Treatment, Dona Ana County, NM

Potential Environmental Justice Index (EJ)



Longitude: -106 45 23 Latitude: 32 18 55



Criteria Ranked by Census Block
(DVMAV * DVECO * PF)

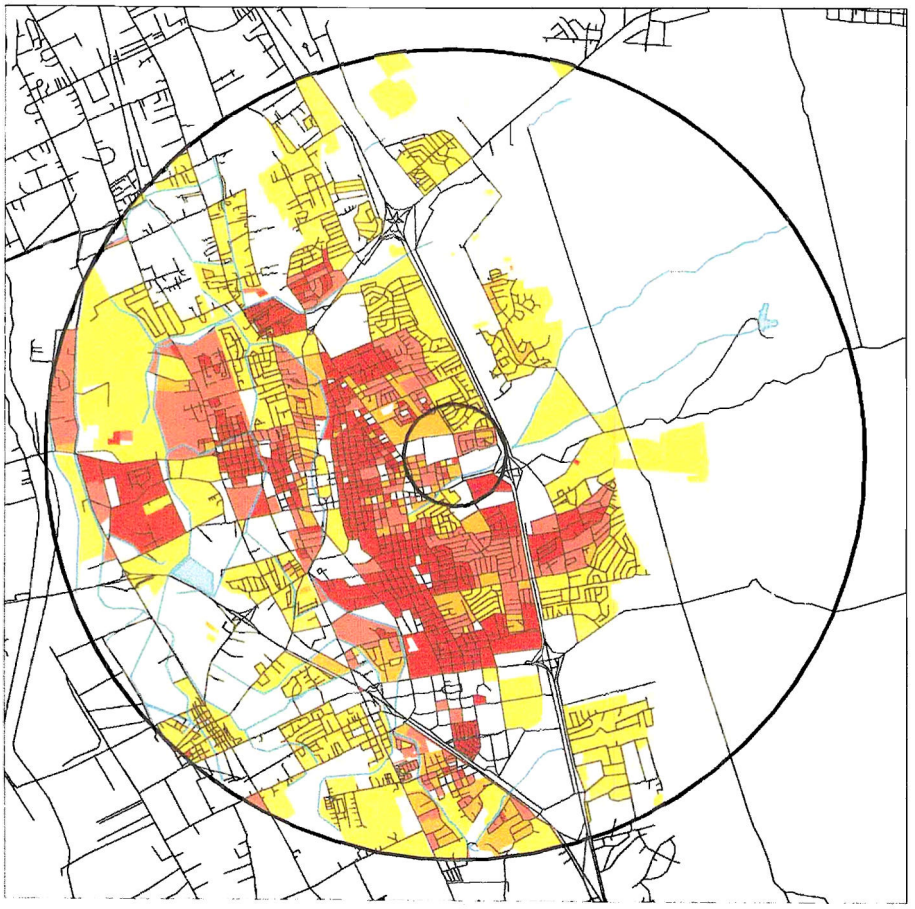
- 1 to 12
- 13 to 25
- 26 to 37
- 38 to 50
- 51 to 100

Potential Environmental Justice Index for Two Study Areas	1 Sq. M
Total Population	2631
Population Ranking (PF)	3
Percent Minority	59.2
Minority Status (DVMAV)	2
Percent Economically Stressed	28.3
Economic Status (DVECO)	1
Environmental Justice Index	6

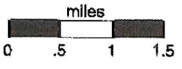
Data Sources and References: US Bureau of the Census, 1990 PL94-171 and STF3A Data, and TIGER Files
US EPA Region 6, 1992. Computer Assisted Environmental Assessment Methodologies, Chapter V. Special Applications, Environmental Equity. Planning and Analysis Section, Management Division, Region 6 EPA, Dallas, Texas

Las Cruces Water Treatment, Dona Ana County, NM

Potential Environmental Justice Index (EJ)



Longitude: -106 45 23 Latitude: 32 18 55



Criteria Ranked by Census Block (DVECO * PF)

- 1 to 12
- 13 to 25
- 26 to 37
- 38 to 50
- 51 to 100

Potential Environmental Justice Index for Two Study Areas	1 Sq. M
Total Population	2697
Population Ranking (PF)	3
Percent Minority	67.7
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Percent Economically Stressed	31.2
Economic Status (DVECO)	2
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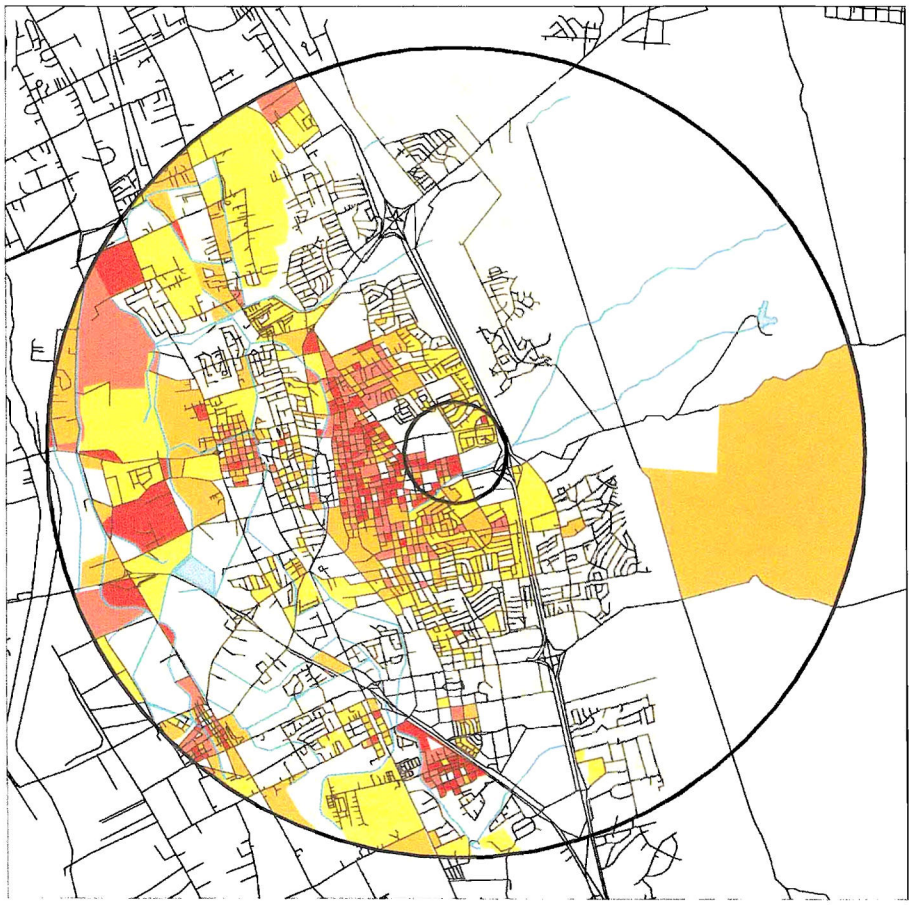
Data Sources and References: US Bureau of the Census, 2000 PL94-171, SF3 Data, and TIGER Files
US EPA Region 6, 1992. Computer Assisted Environmental Assessment Methodologies, Chapter V. Special Applications Environmental Equity. Planning and Analysis Section, Management Division, Region 6 EPA, Dallas, Texas

Las Cruces Water Treatment, Dona Ana County, NM

Minority Status - Degree of Vulnerability (DVMAV)



Longitude: -106 45 23 Latitude: 32 18 55

Percent Minority by Census Block
State Percentage = 49.6

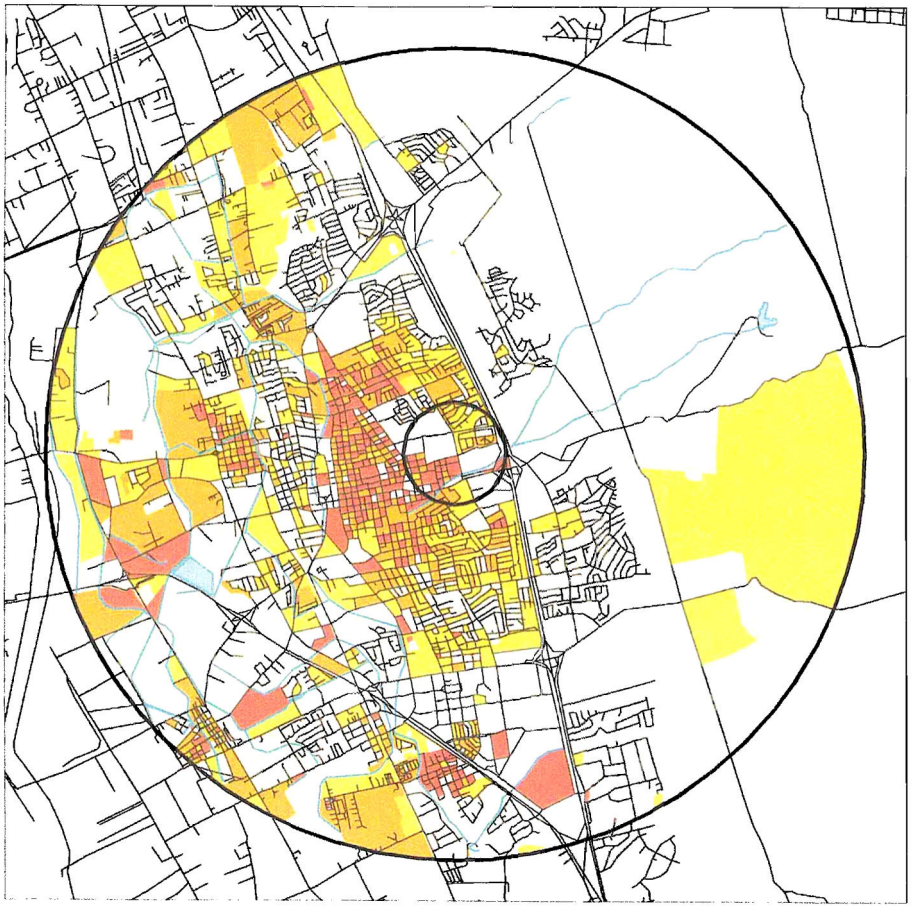
- <= the State Percentage
- > the State Percentage, <= 1.33 times the State Percentage
- > 1.33 times the State Percentage, <= 1.66 times the State Percentage
- > 1.66 times the State Percentage, <= 2 times the State Percentage
- > 2 times the State Percentage

Potential Environmental Justice Index for Two Study Areas	1 Sq. M
Total Population	2631
Population Ranking (PF)	3
Percent Minority	59.2
Minority Status (DVMAV)	2
Percent Economically Stressed	28.3
Economic Status (DVECO)	1
Environmental Justice Index	6

Data Sources and References: US Bureau of the Census, 1990 PL94-171 and STF3A Data, and TIGER Files
US EPA Region 6, 1992. Computer Assisted Environmental Assessment Methodologies, Chapter V. Special Applications Environmental Equity. Planning and Analysis Section, Management Division, Region 6 EPA, Dallas, Texas

Las Cruces Water Treatment, Dona Ana County, NM

Minority Status - Degree of Vulnerability (DVMAV)



Longitude: -106 45 23 Latitude: 32 18 55

Percent Minority by Census Block
State Percentage = 55.3

- <= the State Percentage
- > the State Percentage, <= 1.33 times the State Percentage
- > 1.33 times the State Percentage, <= 1.66 times the State Percentage
- > 1.66 times the State Percentage, <= 2 times the State Percentage
- > 2 times the State Percentage

Potential Environmental Justice Index for Two Study Areas	1 Sq. M
Total Population	2697
Population Ranking (PF)	3
Percent Minority	67.7
Minority Status (DVMAV)	2
Percent Economically Stressed	31.2
Economic Status (DVECO)	2
Environmental Justice Index	12

Data Sources and References: US Bureau of the Census, 2000 PL94-171, SF3 Data, and TIGER Files
US EPA Region 6, 1992. Computer Assisted Environmental Assessment Methodologies, Chapter V. Special Applications
Environmental Equity. Planning and Analysis Section, Management Division, Region 6 EPA, Dallas, Texas

POTENTIAL ENVIRONMENTAL JUSTICE (EJ) INDEX PILOT

Date : 07 Dec 09 13:45:32 Monday
Requestor : DON 6WQNI
Site Id Number : NMLASCRUCES
Site Name : LAS CRUCES WATER TREATMEN
County : DONA ANA
State/County FIPS Code : 35013
Location : -106 45 23 32 18 55
Quality Assurance Resource : 1

LAS CRUCES WATER TREATMEN
1990 - 50 square mile study area

Minority Ranking Value (DVMAV)	: 2	Percent Minority	= 50.5
Economic Ranking Value (DVECO)	: 2	Percent Economically Stressed	= 35.6
Population Ranking Value (PF)	: 3	Total Population	= 70911

Potential Environmental Justice Index (DVECO * PF) = 12

LAS CRUCES WATER TREATMEN
2000 - 50 square mile study area

Minority Ranking Value (DVMAV)	: 2	Percent Minority	= 58.5
Economic Ranking Value (DVECO)	: 2	Percent Economically Stressed	= 35.3
Population Ranking Value (PF)	: 3	Total Population	= 79948

Potential Environmental Justice Index (DVECO * PF) = 12

LAS CRUCES WATER TREATMEN
1990 - 1 square mile study area

Minority Ranking Value (DVMAV)	: 2	Percent Minority	= 59.2
Economic Ranking Value (DVECO)	: 1	Percent Economically Stressed	= 28.3
Population Ranking Value (PF)	: 3	Total Population	= 2631

Potential Environmental Justice Index (DVECO * PF) = 6

LAS CRUCES WATER TREATMEN
2000 - 1 square mile study area

Minority Ranking Value (DVMAV)	: 2	Percent Minority	= 67.7
Economic Ranking Value (DVECO)	: 2	Percent Economically Stressed	= 31.2
Population Ranking Value (PF)	: 3	Total Population	= 2697

Potential Environmental Justice Index (DVECO * PF) = 12

POTENTIAL ENVIRONMENTAL JUSTICE (EJ) INDEX PILOT

The Potential Environmental Justice Index, or the independent subfactors comprising the index, should be used as a DEMOGRAPHIC CORRELATION VARIABLE for studies conducted by the PROGRAMS. These studies may be used to measure Agency policies or procedures regarding sociological equity for enforcement or permitting activities. The information given in this report does not represent the final analysis of a site in regard to Environmental Justice or RISK. The indices and raw data reported are indicators of Vulnerability for subgroups of people to other stressors.

METHODOLOGY CRITERIA

Environmental Justice Indexes are indicators of potential EJ concern. 2000 Census data for a Study Area is evaluated and ranked in relationship to state percentages. Ranking variables are multiplied to produce an index for prioritizing applications. The ranking variables are:

- Economic Status, Degree of Vulnerability (DVECO),
- and Total Population, Population Factor (PF).

ECONOMIC STATUS (DVECO) - In 1990, Economically Stressed was defined as Households making less than $15,000 a year. For NM the percent economically stressed was 31%. In 2000, Economically Stressed is defined as households making less than $20,000 a year. For NM the percent economically stressed was 28.7.

The Methodology for ranking values associated with Degrees of Vulnerability is

Ranking	Criteria
1	<= the State Percentage
2	> the State Percentage but <= 1.33 times the State Percentage
3	> 1.33 times the State Percentage but <= 1.66 times the State Percentage
4	> 1.66 times the State Percentage but <= 1.99 times the State Percentage

5	>= 2 times the State Percentage

~POPULATION RANKING FACTOR Total Population is ranked using the following criteria.

Ranking	Criteria (evaluated on a 1 square mile basis)
0	Total Population = 0
1	Total Population > 0 and < 200
2	Total Population > 200 and < 1000
3	Total Population > 1000 and < 5000
4	Total Population > 5000

Reference for Quality Assurance Resources

1	Personal Verification	7	AIRS
2	Reconciliation with Quad maps	8	PCS
3	Reported from archived files	9	GIS Verified
4	TRIS	10	Professional Judgement
5	RCRIS	11	Federal Facility Tracking System
6	CERCLIS	12	Dun & Bradstreet

Appendix E
Public Hearing Legal Notice and Affidavit of Publication

This information will be provided when the Public Hearing has taken place.