ENVIRONMENTAL ASSESSMENT:

Proposed San Xavier Regional Detention Center Project, San Xavier District, Arizona

Prepared for

BIA Papago Agency
Circle Drive, Bldg 49
Sells, Arizona 85634

and

The Tohono O’Odham Nation
2018 W. San Xavier Road
Tucson, Arizona 85746

Prepared by

CEI also known as BBAR Inc.
(Certified Environmental Inspectors)

May, 2009
ENVIRONMENTAL ASSESSMENT

PROPOSED SAN XAVIER REGIONAL DETENTION CENTER PROJECT,
SAN XAVIER DISTRICT, ARIZONA

For answers to questions, the public may contact:

Bureau of Indian Affairs
Papago Agency
Attn: Donna Peterson
Circle Drive, Bldg 49
Sells, Arizona 85634
Phone: (520) 383-3286
Email: donna.peterson@bia.gov

or

TOHONO O’ODHAM NATION
San Xavier District
Attn: Austin Nunez
Chairman, San Xavier District
2018 W. San Xavier Road
Tucson, AZ 85746
Phone: (520) 573-4006
Email: anunez@waknet.org

Prepared by

Ben B. Boothe

CERTIFIED ENVIRONMENTAL INSPECTORS
(CEI aka BBAR INC.)
9800 Verna Trail North
Fort Worth, TX 76108
(817) 738-9595
bba_a@hotmail.com
DISCLAIMER

Certified Environmental Inspectors (CEI) declares no financial or other interest in the outcome of the proposed project, but is serving as independent consultant.

Certified Environmental Inspectors (CEI)

By:  Ben B. Boothe
Title:  President, CEC, CEI
Date:  April 20, 2009
TABLE OF CONTENTS

List of Acronyms ........................................................................................................... i
List of Tables................................................................................................................... ii
List of Figures.................................................................................................................. ii
Abstract .......................................................................................................................... iii-iv

CHAPTER 1 INTRODUCTION .............................................................................................. 1
  1.1 Purpose of the Environmental Assessment ............................................................ 1
  1.2 Purpose and Need for the Proposed Action ............................................................. 1
      1.2.1 Background and Mission of the U.S. Marshals Service .............................. 2
      1.2.2 Fugitive Investigations ............................................................................. 2
      1.2.3 Protecting the United States Courts ............................................................ 2
      1.2.4 Prisoner Custody and Transportation ........................................................ 2
      1.2.5 Witness Security ....................................................................................... 2
      1.2.6 Asset Seizure ............................................................................................ 2
      1.2.7 Special Operations and Programs ............................................................. 3
      1.2.8 Purpose of the Detention Services ............................................................. 3
      1.2.9 The National Picture ............................................................................... 3
      1.2.10 The Situation in Southern Arizona ........................................................... 4
  1.3 Public Involvement .................................................................................................... 4
  1.4 Laws, Regulations, Permits and Approvals ............................................................. 5

CHAPTER 2 ALTERNATIVES .............................................................................................. 7
  2.1 Proposed Action ...................................................................................................... 7
      2.1.1 Description of the San Xavier District ....................................................... 7
      2.1.2 Proposed Action Description ................................................................... 7
      2.1.3 Proposed Action Location ......................................................................... 8
      2.1.4 Proposed Action Development Consultants and Relationship of Parties ...... 10
      2.1.5 Proposed Action Project Size .................................................................... 10
      2.1.6 Proposed Action Building Description ....................................................... 10
      2.1.6.1 Proposed Action Security ................................................................. 11
      2.1.7 Proposed Action Infrastructure Development .......................................... 15
      2.1.7.1 Onsite Waste Water Treatment System ........................................... 15
      2.1.7.2 Onsite Water System ......................................................................... 16
      2.1.7.3 Water Treatment and Water Storage Tanks ....................................... 16
      2.1.7.4 Paved Access Roadways ..................................................................... 16
      2.1.7.5 Paved Parking Lot ............................................................................. 16
      2.1.7.6 Overhead Electrical Lines .................................................................. 16
      2.1.7.7 Underground Gas ............................................................................. 17
      2.1.8 Proposed Action Land Lease ..................................................................... 17
      2.1.9 Proposed Action Construction Activities ................................................. 17
      2.1.9.1 Construction Equipment .................................................................... 17
      2.1.9.2 Construction Activities ...................................................................... 18
      2.1.10 Proposed Action Soil Erosion Control Measures ..................................... 20
2.1.11 Proposed Action Storm Water Runoff Control ........................................... 20
2.1.12 Proposed Action Site Surrounding Properties, Businesses, Land Uses .......... 20
2.2 Alternative Considered but Eliminated from Further Evaluation ..................... 24
  2.2.1 Alternative Action Site #1 .................................................................... 24
  2.2.2 Alternative Action Site #2 .................................................................... 24
  2.2.3 Alternative Action Site #3 .................................................................... 25
2.3 No Action Alternative .................................................................................. 25

CHAPTER 3 AFFECTED ENVIRONMENT ......................................................... 26
  3.1 Land Resources ...................................................................................... 26
    3.1.1 Erosion, Slope, and Soil Suitability ....................................................... 26
    3.1.2 Geology ........................................................................................... 26
    3.1.3 Minerals ............................................................................................ 26
    3.1.4 Topography ........................................................................................ 26
  3.2 Water Resources ...................................................................................... 27
    3.2.1 Water Quality .................................................................................... 27
      3.2.1.1 Groundwater .............................................................................. 27
      3.2.1.2 Surface Water ............................................................................ 27
    3.2.2 Water Quantity .................................................................................. 27
    3.2.3 Water Use ......................................................................................... 27
    3.2.4 Water Rights ..................................................................................... 27
    3.2.5 Floodplain ......................................................................................... 28
  3.3 Air Resources .......................................................................................... 31
  3.4 Biological Resources ................................................................................ 31
    3.4.1 Special Status Species ...................................................................... 31
    3.4.2 Wildlife Resources ............................................................................ 32
    3.4.3 Migratory Bird Treaty Act ................................................................. 32
    3.4.4 Vegetation ........................................................................................ 32
    3.4.5 Wetlands .......................................................................................... 36
  3.5 Cultural Resources ................................................................................... 36
    3.5.1 Historical, Cultural, and Religious Properties ...................................... 36
    3.5.2 Archaeological Resources .................................................................. 36
  3.6 Socioeconomic Conditions ....................................................................... 36
    3.6.1 Employment and Income .................................................................. 36
    3.6.2 Demographic Trends ......................................................................... 37
    3.6.3 Community Infrastructure ................................................................. 37
    3.6.4 Environmental Justice ...................................................................... 38
    3.6.5 Indian Trust Assets ........................................................................... 39
  3.7 Resource Use Patterns ............................................................................. 39
    3.7.1 Hunting, Fishing, Timber Harvesting, and Gathering ......................... 39
    3.7.2 Mining .............................................................................................. 39
    3.7.3 Agriculture ....................................................................................... 40
    3.7.4 Recreation ......................................................................................... 40
    3.7.5 Transportation Networks ................................................................. 40
    3.7.6 Land Use .......................................................................................... 41
  3.8 Other Values ........................................................................................... 43
    3.8.1 Wilderness ....................................................................................... 43
    3.8.2 Sound and Light ............................................................................... 43
3.8.3 Public Health and Safety ........................................................................43
3.8.4 Solid and Hazardous Waste .................................................................43
3.8.5 Visual ....................................................................................................43

CHAPTER 4 ENVIRONMENTAL CONSEQUENCES ...........................................44

4.1 Land Resources .......................................................................................44
  4.1.1 Proposed Action ..................................................................................44
  4.1.2 No Action Alternative ......................................................................44

4.2 Water Resources .....................................................................................44
  4.2.1 Water Quality ....................................................................................44
    4.2.1.1 Proposed Action .........................................................................44
    4.2.1.2 No Action Alternative ................................................................45
  4.2.2 Water Quantity ...................................................................................45
    4.2.2.1 Proposed Action .........................................................................45
    4.2.2.2 No Action Alternative ................................................................45
  4.2.3 Water Use ...........................................................................................45
    4.2.3.1 Proposed Action .........................................................................45
    4.2.3.2 No Action Alternative ................................................................45
  4.2.4 Water Rights ......................................................................................46
    4.2.4.1 Proposed Action .........................................................................46
    4.2.4.2 No Action Alternative ................................................................46
  4.2.5 Floodplain .........................................................................................46
    4.2.5.1 Proposed Action .........................................................................46
    4.2.5.2 No Action Alternative ................................................................46

4.3 Air Resources ..........................................................................................46
  4.3.1 Proposed Action ................................................................................46
    4.3.1.1 Mitigation Measures ...................................................................47
  4.3.2 No Action Alternative ......................................................................47

4.4 Biological Resources ..............................................................................47
  4.4.1 Proposed Action ................................................................................47
    4.4.1.1 Mitigation Measures ...................................................................47
  4.4.2 No Action Alternative ......................................................................48

4.5 Cultural Resources ..................................................................................48
  4.5.1 Proposed Action ................................................................................48
    4.5.1.1 Mitigation Measures ...................................................................48
  4.5.2 No Action Alternative ......................................................................48

4.6 Socioeconomic Conditions ....................................................................48
  4.6.1 Proposed Action ................................................................................48
  4.6.2 No Action Alternative ......................................................................49

4.7 Resource Use Patterns ............................................................................49
  4.7.1 Hunting, Fishing, Timber harvesting, Gathering, Mining, Agriculture, and Recreation ........................................................................................................49
    4.7.1.1 Proposed Action .........................................................................49
    4.7.1.2 No Action Alternative ................................................................49
  4.7.2 Transportation Networks ....................................................................49
    4.7.2.1 Proposed Action .........................................................................49
    4.7.2.1.1 Mitigation Measures .................................................................49
    4.7.2.2 No Action Alternative ................................................................50
  4.7.3 Land Use ............................................................................................50
    4.7.3.1 Proposed Action .........................................................................50
CHAPTER 1

INTRODUCTION

1.1 PURPOSE OF THE ENVIRONMENTAL ASSESSMENT

This document, together with its appendices and incorporations by reference, constitutes an Environmental Assessment (EA) prepared under the guidelines pursuant to the National Environmental Policy Act (NEPA) of 1969, as amended. Its purpose is to present an assessment of the environmental consequences of a Proposed Action by the San Xavier District to enter into a contract agreement with a private contractor to operate a Regional Detention Center to house not less than 750 or more than 1500 adult detainees. For the purpose of this EA the Proposed Action of the ultimate size of 1500 adult beds is being evaluated.

The EA, the assessment it presents, and the procedures by which the environmental investigations are conducted and incorporated in decision-making are parts of a process established by NEPA to ensure that the environmental consequences of federal actions are adequately taken into account. The BIA’s approval of the Lease agreement between the Land Owners (allottees) and the District, constitutes a Federal action requiring an EA. The process is designed to ensure that public officials make decisions based on a full understanding of the environmental impacts of Proposed Actions and takes all appropriate steps to "protect, restore and enhance the environment" (40 CFR 1501.7). The purpose of this document is to allow for meaningful public review and comment on potential environmental impacts that may result from procuring detention services at a site.

1.2 PURPOSE AND NEED FOR THE PROPOSED ACTION

The primary need for this Proposed Action was decided by the citizens of the San Xavier District of the Tohono O’odham Nation (the District) through their elected tribal leaders, to seek a private operator to bring a facility to the Reservation to assist in the community’s economic development.

The purpose of this facility is to house up to 1500 adults which may include, Federal, State, County and Tribal detainees. Agencies that may use the facility, but have no commitment or contractual obligation at this time, include cities, county Sheriff offices within the region, the Arizona Department of Corrections (ADOC), Immigration and Customs Enforcement (ICE), Federal Bureau of Prisons (FBOP) and the United States Marshals Service (USMS). A discussion of the USMS mission, activities and current and anticipated long term need for detention bed spaces is provided in sections 1.2.1 through 1.2.10. This discussion is provided as an example of just one of the many agencies who could contract for bed space in the District should this facility be constructed at the proposed location in the San Xavier District.

1.2.1 Background and Mission of the U.S. Marshals Service

It is likely that the USMS will utilize the proposed San Xavier Regional Detention Center, therefore a discussion regarding the background and mission of the USMS is provided for the readers benefit. The USMS is the nation’s oldest and most versatile federal law enforcement agency. Created by the Judiciary Act of 1789, the same legislation that established the federal
judicial system, the USMS has served the nation through a variety of vital law enforcement activities. The Director, Deputy Director and 95 U.S. Marshals (appointed by the President or the Attorney General) direct the activities of District offices and personnel stationed at more than 350 locations throughout the 50 states and U.S. territories. The USMS occupies a uniquely central position in the federal justice system and is involved in virtually every federal law enforcement initiative. Approximately 4,000 Deputy Marshals and career employees perform a variety of nationwide, day-to-day missions as described below.

1.2.2 Fugitive Investigations
The USMS has primary jurisdiction nationwide in conducting and investigating fugitive matters involving escaped federal prisoners, probation, parole, and bond default violators, and warrants generated by the Drug Enforcement Administration (DEA) investigations and certain other related felony cases. The USMS is responsible for the "15 Most Wanted" fugitives listing and provides support in the areas of domestic and international investigations, electronic surveillance and analytical support.

1.2.3 Protecting the United States Courts
Providing personal protection to federal judges, court officials, witnesses, and jurors is a principal mission of the USMS. In the Marshal Districts, this means ensuring security and maintaining decorum within the courtroom itself, as well as personal protection for judicial officers, witnesses, and jurors away from the court facilities when warranted. The scope of the Marshals Service Court Security program includes protection for more than 2,000 federal judicial officers as well as countless other court officials, jurors, and witnesses. There are currently more than 700 locations where court proceedings are held throughout the nation. The USMS administers contracts for approximately 3,000 Court Security Officers who secure building entrances at more than 450 court facilities in the United States and its territories.

1.2.4 Prisoner Custody and Transportation
The USMS assumes custody of individuals arrested by all federal agencies and is responsible for the housing, medical care and transportation of prisoners from the time they are brought into federal custody until they are either acquitted or incarcerated.

1.2.5 Witness Security
The Witness Security Program was authorized in 1970 by the Organized Crime Control Act of 1970 (Public Law 91-452) and was amended by the Comprehensive Crime Control Act of 1984. Through this program, the USMS provides for the security, health, and safety of government witnesses, and their immediate dependents, whose lives are in danger as a result of their testimony against organized crime, drug traffickers, terrorists and other major criminals. Since 1970, witnesses have entered the Witness Security Program and have been protected, relocated, and provided with new identities by the USMS. The successful operation of this program by the USMS is widely recognized as providing a unique and valuable tool in the government's war against major criminal conspiracies and organized crime. In both criminal and civil matters involving protected witnesses, the USMS cooperates fully with local law enforcement and court authorities in bringing witnesses to justice or in having them fulfill their legal responsibilities.

1.2.6 Asset Seizure
In 1984, Congress enacted the Comprehensive Crime Control Act, giving federal prosecutors new forfeiture provisions to combat crimes and creating the Department of Justice Assets Forfeiture Fund. The proceeds from the sale of forfeited cars, real estate, jewelry and other forms of property, as well as tainted cash, are deposited into this fund and reinvested into law enforcement activities. The Marshals secure custody, inventory, appraise, store and maintain
property until the final court order is entered. Professional companies under contract to the agency do much of the work in this program. The volume and complexity of some types of assets require considerable knowledge and skill to be successfully managed. The USMS provides property services to the DEA, Federal Bureau of Investigation, immigration Naturalization Service, U.S. Postal Inspection Service and the Food and Drug Administration. These federal agencies work with state, local and international enforcement agencies to investigate seized asset cases. At the conclusion of forfeiture cases, participating state and local agencies can apply for an equitable share of the proceeds.

1.2.7 Special Operations and Programs
Deputy U.S. Marshals carry out hundreds of special missions yearly that are related to the USMS's broad federal law enforcement and judicial security responsibilities. These include the Special Operations Group (SOG) a specially trained and highly disciplined tactical unit that respond to emergencies anywhere in the United States or its territories. The SOG's missions include: fugitive apprehension; dignitary protection; court security; transporting high profile and dangerous prisoners; witness security; and asset seizures. Additional special missions include the Missile Escort Program and the Judgment Enforcement Teams.

1.2.8 Purpose of the Detention Services
The purpose of the proposed detention services is to house detainees having business before the federal courts in the USMS Southern District of Arizona, i.e., individuals arrested for violation of federal statutes and not released on bond while awaiting trial. The USMS assumes custody of individuals arrested by all federal agencies and is responsible for the housing, medical care, and transportation of prisoners from the time they are brought into federal custody until they are either acquitted or incarcerated. These individuals are principally detained by USMS either in federally-owned and operated facilities, or through Intergovernmental Agreements (IGA) or the Cooperative Agreement Program (CAP) with state and local facilities, where bed space is obtained on a per diem basis. Current housing and transport arrangements in southern Arizona are both inadequate and inefficient, due to the growth in the number of detainees and reduction of available detention bed space.

1.2.9 The National Situation
During the past decade, the federal detainee population has experienced unprecedented growth as a result of expanded federal law enforcement initiatives and resources. The detainee population has increased by more than 825 percent, from almost 4,000 in 1981 to more than 36,000 today. Current projections indicate the USMS prisoner population will reach a level of approximately 42,000 by FY 2002, and approximately 47,000 by FY 2003. These prisoners will be housed in a combination of Federal, state, local and private facilities around the country. The growth in the detainee population is occurring at the same time that available Federal, state, local, and private jail space is decreasing. Local jail space is increasingly needed to house local offenders, leaving less space available for housing federal detainees. These trends are projected to continue unabated for the foreseeable future and present a major challenge for federal agencies responsible for detaining prisoners.

Faced with severe shortages in state and local bed space, especially in major metropolitan areas (federal court cities), as well as court ordered caps on prisoner populations, the USMS is finding it increasingly difficult to locate bed space in state and local jails that have traditionally been used to house federal prisoners. Consequently, the USMS periodically contracts with the private sector for detention services or houses detainees farther and farther from their respective federal court cities. The resultant long-distance movement of federal detainees involves substantial amounts of USMS time and resources, and strains the Justice Prisoner and Alien Transportation System to its limits.
1.2.10 The Situation in Southern Arizona
The USMS has an immediate and long-term need for approximately 1500 prisoner beds located within proximity to the federal courthouse in Tucson. The high level of criminal activity in the southwestern United States requires more beds than are readily available in local or state facilities. The shortage of beds has been ongoing for more than two years. The USMS has a specific need for detention facilities to be located near federal courthouses because of its responsibility to detain those individuals accused of violating federal laws. The USMS has detainees scattered among numerous county jails throughout south and west Arizona, some farther than 300 miles away. Obtaining available detainee bed space from local facilities has become increasingly difficult. The USMS often moves a prisoner from jail to jail numerous times before they are sentenced. The USMS estimates that it spends at least half a million dollars a year to transport prisoners. For security and logistical purposes, the USMS prefers that detainees be housed at consolidated locations proximate to federal court cities.

1.3 PUBLIC INVOLVEMENT
The subject San Xavier Regional Detention Center Project has been an ongoing project for several years. The San Xavier District has conducted public meetings, and these have been advertised by public notice in appropriate local media, with Tribal leaders, members, and members of the community at large invited. At these meetings, the project has met with favorable support within the community. Public meetings took place at the District Meeting Room located at 2018 W. San Xavier Road, Tucson, AZ 85746 on the following dates: 07/25/06 and 08/01/06. A letter from the Chairman of the District, Mr. Austin Nunez, confirming the dates of the public meetings can be found in the Appendix, Exhibit A-1.

This environmental report will be available for public review for a 15-day public comment period beginning in May 2009. The commencement date for the public comment period will be advertised by District officials in the appropriate public sources. This EA will be available at the following locations:

San Xavier District - Office of Economic Development
2018 W. San Xavier Road
Tucson Arizona 85746

and

BIA Papago Agency
Circle Drive, Bldg 49
Sells, Arizona 85634

At the conclusion of the 15-day public comment period, the BIA will review public comments, respond where appropriate, and issue a Final EA.

1.4 LAWS, REGULATIONS, PERMITS AND APPROVALS
In accordance with 25 U.S. Code [USC] 415, 25 Code of Federal Regulations [CFR] 162 and the terms of the Bureau of Indian Affair’s (BIA), the proposed signing of the Detention Center’s lease by the District and the Allottees, requires the approval of the Superintendent of the Papago Agency of the BIA. The above-mentioned lease is for a tract of land owned by approximately 44 Allottees. The proposed lease area is a 48.8-acre tract and use of a 60-foot wide Access and Utility Easement (easement contains approximately 5.6 acres) hereinafter referred to as the subject site. The subject site is contained within a 160-acre parcel, out of Township 16 south, Range 13 east, Section 25, Allotment 127, Pima County, Arizona.

An Environmental Assessment (EA) is required because approvals by the BIA constitute a major federal action under the National Environmental Policy Act (NEPA) of 1969 (42 USC 4371 et seq., as amended). The BIA is the reviewing agency under NEPA. The BIA is the lead federal agency. This EA was prepared in accordance with NEPA and the Council on Environmental Quality Guidelines for Implementing NEPA (40 CFR, Parts 1500-1508). As part of this EA, attention was given to the following laws and regulations:

- American Indian Religious Freedom Act (42 USC 1996)
- Archaeological Resources Protection Act (16 USC 470aa-mm)
- Clean Air Act (42 USC 7401 et seq.)
- Clean Water Act (33 USC 1251 et seq.)
- Comprehensive Environmental Response, Compensation and Liability Act (42 USC 9601 ct seq.), and Superfund Amendments and Reauthorization Act (42 USC 11001 et seq.)
- Endangered Species Act (16 USC 1531-1542)
- Executive Order 11593, Protection and Enhancement of the Cultural Environment
- Executive Order 11988 on Floodplain Management
- Executive Order 12898 on Environmental Justice
- Farmland Protection Policy Act (Public Law 97-98)
- National Historic Preservation Act (16 USC 470 et seq.)
- Native American Graves Protection and Repatriation Act (25 USC 3001)
- Resource Conservation and Recovery Act (42 USC 6901 et seq.)
- Safe Drinking Water Act (42 USC 300f et seq.)

Other Permits/Approvals that may be required for the project are included in Table 1 on the following page.
### TABLE 1 – Agency / Permits & Approvals

<table>
<thead>
<tr>
<th>Agencies</th>
<th>Permits/Approvals</th>
</tr>
</thead>
<tbody>
<tr>
<td>San Xavier District Office</td>
<td>Building permits (Building Construction to conform to 2006 International Building Code (IBC))</td>
</tr>
<tr>
<td>American Correctional Association (ACA)</td>
<td>ACA Building and Operational Accreditation</td>
</tr>
<tr>
<td>Arizona Department of Corrections (ADOC) Standards</td>
<td>ADOC Certification of Facility prior to occupancy by State</td>
</tr>
<tr>
<td>Pima County and Arizona Department of Transportation</td>
<td>Highway access permits</td>
</tr>
<tr>
<td>Environmental Protection Agency (EPA) Region IV, and the Office of Environmental Health Services (OEHS)</td>
<td>Wastewater permits and water treatment permits, 401 (Water Quality Certification under the Clean Water Act)</td>
</tr>
<tr>
<td>(EPA) Region IV</td>
<td>Notice of intent (NOI), Erosion control and storm water pollution and prevention plan</td>
</tr>
<tr>
<td>Arizona State Historic Preservation Office</td>
<td>Section 106 Consultation under the National Historic Preservation Act</td>
</tr>
<tr>
<td>US Fish &amp; Wildlife Service</td>
<td>Section 7 consultation under the Endangered Species Act</td>
</tr>
<tr>
<td>US Corp of Engineers</td>
<td>404 Nationwide Permit #14 Linear Transportation Crossings</td>
</tr>
</tbody>
</table>

The appropriate building code for the Proposed Action will be the 2006 International Building Code (IBC 2006) with current amendments. The project will also be designed in accordance with ACA and ADOC standards. Health Codes are not applicable to this project during construction; however, during operation the Indian Health Services Office of Environmental Health, Health Codes will apply and inspections by this entity will be on an annual basis. In addition any of the agencies utilizing detention bed space will have their own health inspections prior to placing inmates in the facility. Construction Safety Standards will be OSHA. There are no other known federal, state, or tribal permits required for this project.
CHAPTER 2

ALTERNATIVES

The following chapter describes the alternatives evaluated in this document: the Proposed Action, Alternative Action and No Action. Included in the Proposed Action is a description of the intended uses of the parcel following approval of the lease and amendments. Also included in this chapter is a discussion of the alternatives considered but eliminated from further consideration. Alternative action is deferred as an action to be available (if any) if the “Proposed Action” or “No Action” are not utilized.

2.1 PROPOSED ACTION

2.1.1 Description of the San Xavier District

The Tohono O’odham (formerly known as Papago) Nation sits in the heart of the Sonoran Desert, sixty miles west of Tucson, Arizona. The Tohono O’odham live on four separate land bases totaling more than 2.7 million acres, which is comprised of the main reservation, the San Xavier District, the San Lucy District and the Florence Village. The main reservation is located in south central Arizona and includes the Sells community, which serves as the Nation’s Capital. Approximately 18,000 of the tribe’s 24,000 members live on this main section of the Tohono O’odham Reservation. The San Xavier District is located just south of Tucson. The San Lucy District is located near the city of Gila Bend. Florence Village is near the city of Florence, southeast of Phoenix.

2.1.2 Proposed Action Description

The Proposed Action (project) involves the development of a 1500-bed Regional Detention Center to be developed for and placed within the San Xavier District reservation. The development of the Detention Center will include construction of the building, an onsite waste water treatment system, water wells, reverse osmosis water treatment plant and a water storage tank with pumping facilities. This Proposed Action was developed for the tribe with the concept of an economic development project that would be derived from:

1. The creation of construction jobs.
2. Permanent jobs as detention and ongoing operational personnel.
3. Monies invested into the District for procurement of goods and services.
4. Fees derived from the leasing of beds by the District to various agencies requiring detention bed space.

The Proposed Action is feasible and will satisfy needs for additional detention/prison bed space in the Tucson area. The proposed Regional Detention Center is to provide prison beds to accommodate the national need for prison space in the USA and in this area. It is built due to needs of national security and will also constitute an economic development enterprise for the area, creating new jobs for the District and surrounding area. The facility will be of modern construction with kitchen, recreational areas, cells, sally port, outdoor secured recreational areas as well as clinic, library and rooms for meetings and administrative purposes.
2.1.3 Proposed Action Location
The proposed facility is to be developed by the District. The proposed site for the facility is located within the San Xavier District of the Tohono O’odham Indian Reservation. The property is an undeveloped 48.8-acre tract and a 60’ wide access and utility easement (5.6 acres), within a 160-acre parcel, located in the northern third of allotment 127, Township 16 south, Range 13 east, Section 25 Pima County, Arizona. The general location of the site is 0.4 miles west of Nogales Highway, and approximately 3500 feet north of Pima Mine Road. A copy of the survey (Figure 1) is presented on the following page. A copy of the legal description for the site can be found in the Appendix, Exhibit A-2.
Figure 1 - Subject Site Survey
2.1.4 Proposed Action Development Consultants and Relationship of Parties
During the summer and fall of 2006, preliminary discussions and meetings with the District about the concept of this project were held. The District, by resolution, selected a project team to explore and develop this project. The Project Team includes:

- Project Consultant and Developer - Innovative Government Strategies (IGS)
- Detention Operator - Community Education Centers (CEC)
- Project Financing - Municipal Capital Markets
- Construction Manager at Risk - Hale-Mills Construction
- Architecture - D L. Williams Architecture in association with Runyon Architects
- Engineering - FCC Corp in association with DRW Engineering

The relationship between the various entities is as follows:

The Project Team is a consultant to the District. The District will own the facility and will contract with the various project team members for various services including operation and maintenance of the facility. The District will acquire the proposed 48.8-acre allotment and 5.6 acre access and utility easement from the Allottees for a 30-year lease period. The District, as a part of this Proposed Action, will allocate 126 acre feet / year of water for the project. The BIA will oversee and approve the leasing of the property from the Allottees to the District. The BIA also is responsible for overseeing the development, publishing and presentation of the NEPA documentation for this project to the public.

2.1.5 Proposed Action Project Size
The Proposed Action includes a building size of 1500 beds, a one-story structure comprising approximately 230,180 square feet of building area.

2.1.6 Proposed Action Building Description
The 1500-bed San Xavier Regional Detention Center is a secure, adult detention facility that is designed to be expandable. This main building is approximately 230,180 square feet, situated on 48.8 acres. The exterior walls are concrete panels. The building structure is steel frame with a standing seam metal roof. The facility is designed and will be constructed to comply with applicable local, state and national codes.

The Administrative Area contains all functional space necessary to support the detention facility. This area includes Lobby, Public Restrooms, Receptionist, Warden’s Office, 10+ additional Administrative Offices, Copy Room, Records, Inmate Phone Monitoring, Supplies, Staff Lounge, Conference Room, Briefing/Training Room, and Staff Locker Rooms/Toilets. The ceiling in the Administrative Area is acoustical ceiling tile. The floors in this area are carpet or vinyl composition tile. The walls are metal studs with gypsum wall board and/or concrete masonry unit.

Detainee Intake contains a secure Vehicular Sallyport, Intake Processing, Holding, Issue Property Storage, Dress In/Dress Out, Intake Administrative Offices and Count/Movement Room. The detainee Infirmary contains Nurse’s Station, Infirmary Holding Room, Exam Rooms, Dental, Isolation Cells, Sick Ward, Telemedia Exam Room, Emergency Treatment, Medication Room, Medical Records, Medical Staff Offices, Pharmacy, Medical Conference Room, Medical Storage, Medical Library, Workroom, Staff and Detainee Toilets. The
ceilings in these areas are concrete (as dictated by security requirements), gypsum board or acoustical ceiling tile. The floors are either sealed concrete or vinyl composition tile. The walls are concrete masonry unit and/or metal studs with gypsum wall board.

The detainee Housing contains (76) separation cells, (58) 8-person dorms, and (40) 24-person dorms. There are Multi-purpose Rooms, Supplies, and a Control Picket in each detainee “pod”. Detainee recreation areas are adjacent to each detainee “pod”. Both Contact and Non-Contact Visitation are provided for detainees and their visitors. The Central Control room is located in the secure area, along with Barber, Commissary, Mail Room, Library and Supplies. The ceilings in the detainee area are either concrete, security board or exposed to structure. The floors are sealed concrete and the walls are grouted, reinforced concrete masonry units. All detainee plumbing fixtures are detention grade stainless steel fixtures. The doors in the detainee housing are security hollow metal and shall be equipped with detention grade hardware. Remote operated locks shall be provided where required. Kitchen is fully equipped with the appropriate kitchen equipment and food storage areas and is designed to accommodate food preparation for 1500 detainees. The Staff Dining is adjacent to the Kitchen. The commercial grade Laundry is equipped to accommodate 1500 detainees.

2.1.6.1 Proposed Action Security

The entire facility is monitored through closed circuit television at the Central Control Room. All electric locks are operable from Central Control. An emergency generator provides power to the facility in case of loss of power. The entire facility is surrounded by a double security fence (twelve feet tall), with three rolls of razor ribbon applied to both fences. A concrete anti-dig barrier 18” deep by 1.0’ is provided under the interior security fence. A perimeter patrol road surrounds the building and will be monitored by patrol car 24-hours a day. Security lighting to national security standards will be provided along the security fence and exterior walls of the facility.

The following pages contain the following figures:

- Figure 2 - Aerial view of 48.8 acres and 60’ access and utility easement
- Figure 3 - Plan of Facility
- Figure 4 – San Xavier Regional Detention Center Floor Plan

On the aerial view it can be seen that approximately 25 acres of the 48.8 acres is planned to be developed within the secure fence. The detention facility design incorporates large buffer areas within the project acreage boundaries for increased security and visibility.
Figure 2 - Aerial view of 48.8 acres and 60’ access and utility easement
2.1.7 Proposed Action Infrastructure Development
The current 48.8-acre site and property for the 5.6 acre access and utility easement is undeveloped. Infrastructure to be constructed to support the proposed Regional Detention Center includes:

- Onsite waste water treatment system
- Onsite Water System
- Water Treatment and Water Storage Tanks
- Storm water Detention/Rosention Ponds
- Paved Access Roadway
- Paved Parking Lot
- Overhead Electrical lines
- Underground Gas
- Telephone Lines

2.1.7.1 Onsite Waste Water Treatment System
Waste water treatment for the proposed Regional Detention Center will include onsite construction of a package waste water treatment plant (WWTP) rated to treat 250,000 gallons per day (GPD) and construction of three, 5-acre lined evaporative ponds to receive the treated effluent. The 250,000 gallons includes treatment of the estimated 100,000 gallons of waste water generated each day and a 2.5 design peak factor. A permit to discharge the treated effluent will be prepared and submitted to the EPA to provide the option of discharging the treated effluent into the dry wash located at the south east end of the property which will allow flow offsite to the east and off reservation property to the Santa Cruz River. The evaporative ponds have been designed to store all treated effluent with an appropriate reserve capacity for rainfall and a low evaporative occurring months.

The WWTP will consist of conventional waste water treatment trains that include:

- Aeration Tanks (3)
- Clarifier
- Aerobic Digester
- Chlorine contact tanks
- Holding pond with 30 day reserve capacity

The liner of the evaporative ponds will be constructed of High Density Poly-Ethylene (HDPE) or Hypalon fabric. Treated effluent may be utilized by the operator for landscape irrigation onsite. The lined ponds will be connected by piping and valves to allow flow from one pond to the other and for segregation for WWTP maintenance and repair.

An Arizona registered Professional Engineer will design all WWTP plans and prepare and submit the effluent discharge permit to the EPA for review and approval prior to operation. The BIA and District will be sent copies of WWTP plans and Discharge Permit Application and Final Permit for their records.
2.1.7.2 Onsite Water System
Potable and Fire protection water for the proposed project will be provided by drilling wells on site, construction of a reverse osmosis water treatment plant and construction of ground storage water tanks for reserve capacities. Test wells will be drilled to determine the permanent placement of water wells for the facility. Two wells will be drilled to accommodate the required 75 gallons per inmate/day water usage (75 gallons x 1500 = 112,500 gallons per day. The 112,500 gallons of water per day equates to approximately 126 acre feet per year (to be obtained from the San Xavier District). All wells will be drilled within the 48.8 acre site.

2.1.7.3 Water Treatment and Water Storage Tanks
Existing water quality at the site meets drinking water standards based on sampling of nearby wells and discussions with the District’s Hydrologist. However, the domestic water will be treated by reverse osmosis to improve water taste and quality by treating sulfates and Total Dissolved Solids (TDS) present in the groundwater. A single 500,000 gallon (or two 250,000 gallon) storage tanks will be constructed onsite and appropriately sized domestic and fire protection booster pumps will be constructed to provide a reserve capacity of water and fire protection capabilities for the facility.

2.1.7.4 Storm Water Detention
Storm Water Detention/ Retention Basins will be constructed onsite to contain the post development runoff generated by the increase in impervious surface area created by the development of the project. Detention /Retention Design for this project is based on the Storm water Detention/Retention Manual published by the Pima County Department of Transportation and Flood Control District of the City of Tucson. Design involves calculating the existing condition peak runoff and the post development peak runoff for various duration storms. Inflow and outflow hydrographs are calculated and a stage storage model developed to determine the appropriate volume of storage for a given area. Based on this criteria, the required storm water detention volume for this site is calculated to be approximately 4.0 acre feet. The 4.0 acre feet will be detained in a detention basin approximately 1.5 acres in size, 4.0’ deep located at the east end of the parking lot.

2.1.7.5 Paved Access Roadways
Roadways to the site from Pima Mine Road and interior to the site will be constructed of Asphalt paving or Chip Seal to meet traffic loading requirements. Storm water culverts will be installed at the existing dry wash area at the south property line of the site.

2.1.7.6 Paved Parking Lot
The Parking lot for visitors and staff and all other parking areas will be asphalt pavement.

2.1.7.7 Overhead Electrical Lines
Three phase electrical lines for the project will be installed from Pima Mine Road, where main lines exist for connection to the north, within the 60’ Access and Utility Easement to the project site.


2.1.7.8 Underground Gas
Natural Gas lines for the project will be installed from Pima Mine Road where main lines exist for connection to the north, within the 60’ Access and Utility Easement to the project site.

2.1.7.9 Telephone Service
Underground telephone lines for the project will be installed from Pima Mine Road where main lines exist for connection to the north, within the 60’ Access and Utility Easement to the project site.

2.1.8 Proposed Action Land Lease
A lease is a legal instrument that provides for the contractual use or control of a property for a given period of time. This Proposed Action cannot occur without a lease, because the lease defines the financial value of the use or control of a property. The lease cannot, in this case, be signed until the BIA approves the environmental and appraisal reports. Approval of the signing of the lease by the BIA is central to defining the economic benefit of the control and use of the project for financial gain.

The land lease is for a 48.8-acre tract of land known as a portion of Township 16 south, Range 13 east, Section 25, Allotment 127, Pima County, Arizona. The lease agreement also includes a 60’ wide access and utility easement comprising 5.6 acres that provides access to the site from Pima Mine Road. The subject tract will be leased for the Proposed Action under a 30-year lease for the purposes of constructing a 1500-bed Regional Detention Center. This EA is concerned with the use of the land for the 30-year lease period; however, it is logical to conclude that the facility would remain an ongoing enterprise if the goals and success of the project are as anticipated. The responsibility of the Lessee is to pay the lease in accordance to the terms of the lease and the responsibility of the Lessor is to appropriately abide by the terms of the lease. Under the proposed lease agreement, the Allottees will be the Lessor with the San Xavier District as the Lessee.

The term of the lease is 30 years. The Lessee shall pay compensation to the Lessor for the use of the land. Other questions relating to the lease can be directed to Mr. Austin Nunez, Chairman of the San Xavier District of the Tohono O’odham Nation.

2.1.9 Proposed Action Construction Activities
The current 48.8 acre site and the 5.6 acre easement area are undeveloped. The proposed building and infrastructure design described in previous sections will result in utilization of construction equipment and general construction activities described below:

2.1.9.1 Construction Equipment
During construction, the equipment to be used will be standard construction equipment, including, but not limited to the following:

- Equipment for Building Pad Construction – 3 Scrapers, 1 Paddle Wheel Scraper, 1 Blade, 1 D-9 Cat, 1 Water Wagon, 1 Water Truck, 1 Water Tower, 1 Raygo Steel Face Roller, 1 Service Truck, 1 Reach Forklift, 1 Backhoe, 1 Skip Loader, 1 Storage Container, 1 Debris Box
• Equipment for Concrete, Underground Plumbing & Electrical – 3 Backhoes, 1 Skip Loader, 1 Reach Forklift, 1 Intermittent Boom Pump, 3 Storage Containers, 1 Debris Box, 1 Wash Down Box

• Equipment for Steel Erection – 2 Cranes, 1 Reach Forklift, 2 Portable Welders, 1 Portable Generator, 1 Storage Container, 1 Debris Box

• Equipment for Fireproofing – 2 Semi-Trailers, 1 Hopper/ Spray Truck, 1 Debris Box

• Equipment for Metal Studs Framing/ Drywall/ EIFS – 2 Reach Forklifts, 1 Intermittent Crane, 1 Debris Box

2.1.9.2 Construction Activities
A description of the general types of construction activities is presented in a question and answer format in Table 2 on the following Page.
<table>
<thead>
<tr>
<th>General Construction/Project Questions</th>
<th>Response To General Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>What will the construction workforce consist of, (general numbers and potential types of jobs)?</td>
<td>General construction workers ranging from 10 to 100 depending upon the phase of the project.</td>
</tr>
<tr>
<td>Where will the staging areas for materials, vehicles, machinery be located?</td>
<td>Staging area will be on the subject property adjacent to building site.</td>
</tr>
<tr>
<td>What is the Duration of construction?</td>
<td>12 - 18 months.</td>
</tr>
<tr>
<td>What is the Duration of the lease?</td>
<td>30 years.</td>
</tr>
<tr>
<td>At the end of the lease term, what will happen to the property?</td>
<td>Tribal authorities will decide whether to execute a new lease, or close the facility.</td>
</tr>
<tr>
<td>Who will the facility serve?</td>
<td>The facility will serve the Tohono O’odham Nation for jobs and the USA for prison beds.</td>
</tr>
<tr>
<td>How will general emergency procedures be developed?</td>
<td>General emergency procedures will be defined by the prison warden in accordance with the standard prison procedures and guidelines.</td>
</tr>
<tr>
<td>How will waste disposal during construction be handled</td>
<td>Waste disposal will be collected by a contract vendor and delivered to and disposed of in an approved land fill off of the Reservation.</td>
</tr>
<tr>
<td>How will dust control be maintained during materials hauling and construction?</td>
<td>Dust control will be accomplished by using water trucks on non paved roads and construction areas and by limiting construction activities during high wind events.</td>
</tr>
<tr>
<td>How will construction in the floodplain, be addressed?</td>
<td>A registered Floodplain engineer (hydrologist) will be one of the project consultants. Any construction in a floodplain area will be in accordance with federal (EPA, COE and FEMA) agency guidelines.</td>
</tr>
<tr>
<td>Will the road(s) to and within the site be paved?</td>
<td>A paved roadway approximately 3,000 feet long, consisting of asphalt or chip seal will be constructed in the access easement from Pima Mine Road to the 48.8 acre site. The proposed perimeter patrol road will be unpaved.</td>
</tr>
<tr>
<td>How will new utilities be brought to the site?</td>
<td>Utilities (Natural Gas, Electrical, and Telephone) will be extended from Pima Mine Road and placed within the access and utility easement.</td>
</tr>
<tr>
<td>Will the parking lot be paved?</td>
<td>The parking lot will be paved with asphalt.</td>
</tr>
</tbody>
</table>
2.1.10 Proposed Action Soil Erosion Control Measures
Building sites as a matter of normal construction are graded, and soils replaced with foundation materials. An erosion control plan as well as a Storm Water Pollution Prevention Plan (SWPPP) will be prepared by a registered civil engineer and plans posted on site and adhered to in conformance with federal laws. A Notice Of Intent (NOI) will be filed with the Environmental Protection Agency (EPA) prior to commencement of construction. A perimeter silt fence will be installed to mitigate potential soil erosion. Standard landscaping and soil coverage will be applied to avoid erosion at completion of construction activities.

2.1.11 Proposed Action Storm water Runoff Control
Development of the 48.8 acre Regional Detention Center site and the 5.6 acre access and utility easement area will result in an increase in the percentage of impervious areas to rainwater. This increase in the impervious area can create additional storm water runoff to occur. The proposed Regional Detention Center design will include construction of a 1.5 Acre (4.0 feet deep) storm water detention/retention pond designed to release storm water runoff at the pre-developed rate as described in section 2.1.7.4.

The project will not involve development in an erosion-sensitive area. The area to be developed is devoid of any vegetation except minor and scattered native weeds and grasses.

2.1.12 Proposed Action Site Surrounding Properties, Businesses, Land Uses
Approximately 5/8 of a mile southeast of the subject property is a tract owned by Pima County that includes the hydrology unit of Pima County (injection wells). The land to the southeast of the proposed Regional Detention Center, north of Pima Mine Road and east of the San Xavier District boundary is old retired farm land that was owned by ASARCO at one time, but was taken over by the City of Tucson and Central Arizona Water Conservation District (CAWCD) for the purpose of constructing the Pima Mine Road recharge facility. Except for the recharge basins and water distribution infrastructure, the land is mostly undeveloped. The land 3/4 miles south of the subject is a corporate office and land to the southeast, south of East Pima Mine Road, is a pecan orchard. Adjoining land west (and southwest) of the subject is allotted tribal land, not utilized for agriculture.

The following pages contain:
- Figure 5 - Aerial map with contours
- Figure 6 – Location map (showing roadways and general site location)
- Figure 7 - San Xavier District Allotte map (with subject site location).
Figure 6 – Location Map (showing roadways and general site location)
Figure 7 - San Xavier District Allotte map (with subject site location).
2.2 Alternatives Considered But Eliminated from Further Evaluation

Beginning in 2006, the District has considered and evaluated, in order, three previous Alternative actions (sites) to the Proposed Action (site). These include:

1. **Alternative Action #1** - A location 1 mile west of Interstate 19.

2. **Alternative Action #2** - A location 18 miles northwest, of the Proposed Action Site

3. **Alternative Action #3** - A location south of the proposed location within the 160-acre allotment 127 along and fronting Pima Mine Road.

Each of the above mentioned locations were deemed inferior due to:

- Accessibility
- Location with respect to highways, roadways and other means of transportation
- Availability of water resources and utilities,
- Terrain
- Proximity to businesses and residences

Each of the 3 alternative locations posed greater potential negative impact to environmental and socio-economic issues than the Proposed Action site.

2.2.1 Alternative Action Site #1

The first site that was considered was located approximately 1 mile west of Interstate 19 fronting Pima Mine Road to the North and was situated just east of the ASARCO Mine Tailings impoundment. This site was deemed less desirable than the Proposed Action site for the following reasons.

a. Concern of the stability of the mine tailings embankment which was approximately 100 feet above the existing ground level of the proposed site.

b. Groundwater quality and quantity were a concern in this area due to potential leaching of mine tailings into groundwater source and the high amount of total dissolved solids (TDS) in the groundwater samples provided by the District’s Hydrologist.

c. Presence of a large quantity of Saguaro Cactus on the site.

d. Poor quality of Pima Mine Road to this site.

2.2.2 Alternative Action Site #2

The second site was a site located in the Northwest portion of the San Xavier District that was located approximately 0.8 mile south of Highway 86 (AJO Highway). The legal description of this site is the northwest corner of Section 27, Township 57 South, Range 11 East. This site was deemed less desirable for the following reasons.

a. The site has no paved access to a major roadway. The best access available required the purchase of an access easement from the University of Arizona through Section 22. Approval of this easement would require University of Arizona Board approval and the requirement to build a substantial (0.8 mile) of Roadway at the Districts cost.

b. Erosion of the property was an anticipated problem due to seasonal flooding and the
steeper grades of this site.
c. Large cost and more disturbed areas of vegetation to grade the site for development
due to slopes and grades of existing terrain.
d. Electricity and gas was not readily available to the site.

2.2.3 Alternative Action Site #3
The third site was a 50-acre site located within the 160-acre allotment 127 and approximately
3000 feet south of the Proposed Action site location and having frontage on Pima Mine Road.
This site was deemed less desirable for the following reasons.

a. The site would have a close proximity to Pima Mine Road and would be more visible
to traffic and neighboring communities such as Sahuarita.
b. The development of this site along Prime highway frontage would take away
potential development for projects that could better utilize highway frontage uses
such as retail and commercial development.
c. Location was closer than Proposed Action Site to ongoing business concern just
south of Pima Mine Road.
d. This site was considerably more expensive to lease based on Pima Mine Road
frontage.

2.3 NO ACTION ALTERNATIVE
The No Action Alternative is defined as a decision by the District not to proceed with a
detention services contract with a contractor owned/contractor-operated facility within the
reservation, or a decision by the BIA not to approve the lease. The No-Action Alternative
would avoid the potential impacts and inconveniences associated with detention operations,
such as minor noise and minor disruption of traffic patterns associated with construction and
operation.

The District anticipates that the potential project would not create adverse impacts as defined
by NEPA. Impacts that might occur must be contrasted with loss of positive benefits such as
lessening of overcrowded conditions in existing city, county, tribal, state and federal
detention facilities, societal benefits derived from efficient operation of the criminal justice
system and beneficial impacts on the local economy due to construction activities and/or
operational budget expenditures. In light of these considerations, the No-Action Alternative is
deemed to be neither prudent nor in the best interest of the public.
CHAPTER 3

AFFECTED ENVIRONMENT

This chapter describes the existing environments that may be potentially affected by the Proposed Action and No Action Alternatives. Environmental resources considered include: land resources, water resources, air resources, biological resources, cultural resources, socioeconomic conditions, resource use patterns, and other values (wilderness, sound and noise, visual, solid and hazardous waste treatment, and public health and safety).

3.1 LAND RESOURCES

3.1.1 Erosion, Slope, and Soil Suitability
The project area has no significant slopes or topographic relief. Elevation is approximately 2,640 feet above mean sea level. Slope of the project site is approximately between 0 (flat) to 0.4 percent, sloping from southwest to northeast. No evidence of erosion or sedimentation was evident during site visits in 2007 and 2008.

Soils in the project area appear suitable for the proposed project. Review of soil data indicates that the project area is underlain by the Continental-Tubac series (Hendricks 1985). Continental soils are deep and well drained with a gravelly sandy loam surface layer about 6 inches thick. The subsoil is gravelly sandy clay loam and clay about 25 inches thick. Tubac soils are also deep and well drained. Typically, they have gravelly sandy loam and loam surface layers about 14 inches thick underlain abruptly by clay subsoils about 17 inches thick.

3.1.2 Geology
Subject area is considered an area of high silica sands, and arid desert lands. There are some loams, mixed with clays providing adequate drainage. There is no evidence or record of any seismic activity in the area. This area has a layer of fine sandy loam soils, with an area underneath the top soils ranging from 2 feet to 15 feet under the surface. Under the 15 feet level below which is additional sand, fine gravel, and some limestone gravel formations.

3.1.3 Minerals
Soils and sub soils are considered stable. Soil maps indicate that the subject consists of sand and caliche type soils desert sand high silica, Sandy loam 60%, slope to NE, Limu fan 40%. Soils of the subject are Grabe loam, Comoro sandy loam, Grabe silty clay loam, Sonoita loam, Comoro loam, Riverwash and Sonoita-Tubac complex. There has been no extensive research or investigation for minerals on the subject site as a part of this EA.

3.1.4 Topography
The general area of the subject property is flat to slightly sloping desert lands with some salt cedar and desert vegetation, on soils of high silica content. The general area around the subject site is pasture land, farmlands or desert. The terrain is gently flat with some gullies in the desert and is uninhabited, undeveloped land.
3.2 WATER RESOURCES

3.2.1 Water Quality
   3.2.1.1 Groundwater
   The regional aquifer underlying the Santa Cruz River is the primary source of groundwater in the San Xavier District. Depth to the water table in the regional aquifer near the proposed project ranges from 83 to 93 feet beneath the surface. Natural recharge to the regional aquifer occurs primarily as percolation through major stream channels and through mountain front recharge. Near the proposed project area, recharge is expected to be dominated by infiltration through the ephemeral El Vado Wash and the Santa Cruz River. Average annual recharge through the Santa Cruz River channel in this area is estimated at between 200 and 400 acre-feet per year (Osterkamp 1973). Water sampling near the project site indicates groundwater will meet primary drinking water standards although Sulfate concentration may be slightly high.

   3.2.1.2 Surface Water
   Surface water that is generated by rainfall currently percolates into the soil and eventually recharges the aquifer. Some runoff flows to the Santa Cruz River, however, given the flat topography the majority of water will enter the aquifer through filtration.

3.2.2 Water Quantity
   In the project and surrounding area there are other layers of underground water. The main water table is at 20 feet to 400 feet according to Scott Rodgers District Hydrologist.

3.2.3 Water Use
   There are currently seven wells near the project area at the current time. The Tohono O’odham Utility Authority owns four of these wells that provide potable water for most of the San Xavier District including residences and the nearby Indian Health Services (HIS) clinic. The District’s Desert Diamond Casino located approximately 3 miles west of the project site has an independent onsite well and reverse osmosis treatment plant for potable water. Water use for the Proposed Action will be accomplished by drilling an onsite well, and providing treatment to groundwater.

3.2.4 Water Rights
   The San Xavier District is entirely within the Tucson Active Area (TAMA) established by the Arizona Department of Resources (ADWR). The TAMA includes the AVRA Valley and Upper Santa Cruz sub-basins. The boundary between these two sub-basins runs through the San Xavier District. The Southern Arizona Water Rights Settlement Act (SAWRSA) of 1952 established pumping rates for the San Xavier District. The District is allowed to pump 10,000 acre feet of groundwater annually. This includes water pumped by ASARCO (a mining company), the San Xavier Cooperative Farm, domestic users, and all other water use on the District. SAWRSA amendments now being negotiated should grant the District an annual allocation of 50,000 acre-feet of Central Arizona Project water. A letter from the District’s legal counsel regarding water rights for the District is provided in the Appendix, Exhibit A-3.
3.2.5 Floodplain
The Proposed site is bordered by the Santa Cruz River to the West and a seasonally dry wash to the south. Federal Floodplain is mapped by the Federal Emergency Management Agency (FEMA) through hydraulic and hydrology studies and publication of Flood Insurance Rate Maps (FIRMS). The FIRM that includes the Project area is (Community Panel No. 04019C2840 K, dated February 8, 1999). The subject site and access easement are currently in an area designated as Zone X. The Zone X is defined as areas to be outside of the 500-year floodplain. A copy of the FIRM Panel for the subject site is included on Figure 8 and the FIRM Map Legend is included on Figure 9 on the following pages.
Figure 8 – Flood Insurance Rate Map (Number 04019C2840 K) February 8, 1999
3.3 AIR RESOURCES

The EPA regulates activities affecting air quality on federal and Indian lands. Federal lands are not subject to Arizona’s State Implementation Plan (SIP), and the Tohono O’odham Nation has no agreement with the State regarding the implementation of SIP on the reservation. In Arizona, the Arizona Department of Environmental Quality (ADEQ) administers the SIP. Under the Indian Air Rule, the Nation has the option of writing a Tribal Implementation Plan (TIP) for air quality.

San Xavier District is within a Group I attainment area that currently meets federal health standards for ozone (created by volatile organic carbons and nitrogen oxides) and PM$_{10}$ pollutants (airborne particles 10 microns or less in diameter). The area has been designated non-attainment for carbon monoxide. The primary sources of carbon monoxide include exhaust from aircraft at Tucson International Airport, and vehicle emissions from Nogales Highway and Los Reales roads. Periodic dust storms may result in temporary, localized deterioration of air quality.

There are no air quality monitoring sites on the San Xavier District. The nearest monitoring station is at Santa Clara elementary school. There was no exceedance of the National Ambient Air Quality Standards (NAAQS) at any of the monitoring stations reported by Pima County DEQ in 2004, specifically Santa Clara, the site nearest the San Xavier Regional Detention Center.

3.4 BIOLOGICAL RESOURCES

Karen Howe, biologist for the Tohono O’odham Nation has performed a biological survey on the subject site on November 2008. A copy of the Biological Resource Clearance letter is included in the Appendix as Exhibit A-4.

3.4.1 Special Status Species

Pursuant to the Endangered Species Act (50 CFR 402.12 ©) the USFWS was contacted to determine the potential occurrence of threatened or endangered species in and adjacent to the study area. The current Pima County list of 19 endangered, threatened, proposed, and candidate species available from the U.S. Fish and Wildlife Service (USFWS 2009) was obtained to determine which species have the potential to occur in the project area. It was determined that one federally listed species, the Pima pineapple cactus has the potential to occur within or near the proposed project area. Findings regarding this species are summarized in Table 3 below.

### Table 3 - Federally Listed Species with the Potential to Occur in the Proposed Project Area

<table>
<thead>
<tr>
<th>Species</th>
<th>Status</th>
<th>Likelihood of Occurrence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pima Pineapple Cactus</td>
<td>E</td>
<td>Unlikely to occur.</td>
</tr>
<tr>
<td><em>(Coryphantha scheeri robustispina)</em></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

An onsite inspection for Pima Pineapple Cactus was completed and none were observed. A complete listing of the endangered, threatened and candidate species for Pima County (obtained from the Arizona Ecological Services Office of the USFWS) is found in the Appendix Exhibits A-5 through A-10. Research and in the field surveys disclosed no known occurrences of state endangered or threatened species or natural communities in the general vicinity of the
The project area is not within proposed or designated Critical Habitat for any federally listed species. In October 2008 the Tohono O’odham Nation Natural Resources Department surveyed the proposed project area and determined the area was clear of any special status species.

3.4.2 Wildlife Resources
There is a variety of wildlife in Arizona, including small mammals, rabbits, falcons, reptiles, raptors, skunks, field mice, lizards, deer, snakes, coyotes, rattlesnakes, woodpeckers, scissor-tailed flycatchers, cardinals, robins, mockingbirds, wrens, blue jays, roadrunners, dove, sparrows, shrikes, hawks, owls, and vultures. However, the arid nature of the area, limits the population. During the site survey, we saw no species of any kind. The subject property is considered arid desert land, with cactus, salt cedar trees/underbrush, and very little grass. It has very little vegetation except for native grasses and some trees, therefore there are few species noted to live near the subject only a few miles from Tucson, Arizona, in Pima County. In the past 100 years, the subject property has primarily been considered desert prairie, and it’s proximity to the community of Tucson and Highway 86, have been such that there is no evidence of any species on or near the subject site. The subject site is not a woodland, or wetland, and has only grasses with some desert plant varieties on the property, and is not a producer of significant food for animals. No permanent surface water exists on the subject site, therefore no aquatic species are expected to occur. Onsite investigations did not identify any significant natural plant or animal communities, or native prairie remnants which would be impacted by the proposed project.

3.4.3 Migratory Bird Treaty Act
The Migratory Bird Treaty Act was implemented to end the commercial trade in birds and their feathers that had decimated populations of many native bird species. The Migratory Bird Treaty Act decrees that all migratory birds and their parts (eggs, nests, and feathers) are fully protected. Project site surveys indicate that the subject property is not suitable for breeding or nesting of any significance for migratory birds, nor a route to or from any such lands.

3.4.4 Vegetation
The project area is located within the Arizona Upland Sonoran Desert scrub biotic community (as described in Brown 1994) with an elevation of approximately 2,460 feet above mean sea level. Vegetation within the project area is limited. Vegetation that is present includes Velvet mesquite (Prosopis velutina), creosote bush (Larrea tridentata), burroweed (Isocoma tenuisecta), and grasses. Xeroriparian vegetation associated with the El Vado Wash includes cat claw acacia (Acacia greggii), palo verde (Cercidium spp.), desert broom (Baccharis sarothroides), and four-winged saltbush (Atriplex canescens). Weeds, grass, and small trees were present, but no unusual presence of noxious weeds or invasive species were observed.

The project area is bordered by undeveloped land to the east and west. South of the subject across the road are some commercial improvements; Nogales Highway, Union Pacific Railroad tracks, and Tucson International Airport to the east; and other commercial sites to the south. No naturally occurring permanent surface water exists in the project area, and no stands of deciduous broad-leaved riparian trees are present. There are no natural caves or crevices, or mines suitable for bat roosts in the project area. No saguaro cacti (Carnegiea gigantea) were observed within the project area.
Table 4 – Summary List of Threatened Endangered or Candidate Species (Pima County)

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Scientific Name</th>
<th>Species Group</th>
<th>Listing Status</th>
<th>Species Image</th>
<th>Species Distribution Map</th>
<th>Critical Habitat</th>
<th>More Info</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acuna Cactus</td>
<td>Echinocactus echinocerus var. acunensis</td>
<td>Flowering Plants</td>
<td>C</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>brown pelican</td>
<td>Pelecanus occidentalis</td>
<td>Birds</td>
<td>DM, E</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chiricahua leopard frog</td>
<td>Rana chiricahusensis</td>
<td>Amphibians</td>
<td>E</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>desert pupfish</td>
<td>Cyprinodon macularius</td>
<td>Fishes</td>
<td>E</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gila chub</td>
<td>Gila intermedia</td>
<td>Fishes</td>
<td>E</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gila topminnow (incl. Yaqui)</td>
<td>Poecilopsis occidentalis</td>
<td>Fishes</td>
<td>E</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Huachuca water-umbel</td>
<td>Lisaiaopsis schaffneriana var. recurva</td>
<td>Flowering Plants</td>
<td>E</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>jaguar</td>
<td>Panthera onca</td>
<td>Mammals</td>
<td>E</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kearney's blue-star</td>
<td>Amsonia kearnsiana</td>
<td>Flowering Plants</td>
<td>E</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>lesser long-nosed bat</td>
<td>Leptonycteris curasoae verbactumae</td>
<td>Mammals</td>
<td>E</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>masked bobwhite (quail)</td>
<td>Colinus virginianus bridgwyn</td>
<td>Birds</td>
<td>E</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mexican spotted owl</td>
<td>Strix occidentalis lucida</td>
<td>Birds</td>
<td>E</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nichol's Turk's head cactus</td>
<td>Echinocactus horzontalunus var. nicholii</td>
<td>Flowering Plants</td>
<td>E</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ocelot</td>
<td>Leopardus (=Felis) pardalis</td>
<td>Mammals</td>
<td>E</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pima pineapple cactus</td>
<td>Coryphaea scheeri var. robustisspina</td>
<td>Flowering Plants</td>
<td>E</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sonoran pronghorn</td>
<td>Antilacopa americana sonoriensis</td>
<td>Mammals</td>
<td>E</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sonora mud turtle</td>
<td>Kinosternon sonoriense longissinlorum</td>
<td>Reptiles</td>
<td>C</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>southwestern willow flycatcher</td>
<td>Empidonax trailli extinctum</td>
<td>Birds</td>
<td>E</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>yellow-billed Cuckoo</td>
<td>Coccygus americanus</td>
<td>Birds</td>
<td>C</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figures 10 and 11 on the following pages contain Photographs taken during site surveys.
Figure 10 - Site Photographs
Figure 11 - Site Photographs
3.4.5 Wetlands
The subject property is in an area of gently rolling, arid desert lands. There are no lakes, valleys, or flowing waterways on the subject tract. This is a dry area, and the potential for flooding or drainage is considered minimal. Terrain maps do not indicate any deep or low areas on the subject, except where the gullies are, and that drainage is considered normal, this being a gently rolling area with general gently rolling topographical characteristics. There are some underbrush trees, but no wetland habitats on the site. There is not hydrophilic vegetation present. There is no significant wetland hydrology present. Hydric soils are not present. This site is determined to be a non-wetland area. A wetland inventory map is included in the Appendix as Exhibit A-11. This exhibit shows that there are no recorded wetlands on or near the proposed site.

3.5 CULTURAL RESOURCES

3.5.1 Historical, Cultural, and Religious Properties
The project site is within a region that has witnessed a fairly uninterrupted period of Native American occupation from the Middle and Late Archaic-Early Agricultural period to the period of contact with the Spanish in the early 1700s. Isolated projectile points found elsewhere in the region, but not at this site, indicate earlier Paleo-Indian and Early Archaic occupations, bringing the length of human occupation to over 10,000 years. The best-documented occupation in the region is the ceramic period Hohokam occupation dating from ca. A.D. 200 to 1450. Hohokam habitation sites elsewhere in the region, but not at the subject site (lease area), include villages with ballcourts and later villages with platform mounds and cerros de trincheras (hillside terraced sites) (e.g., Dart 1987:17-26).

For the Protohistoric Period, between A.D. 1450 and the arrival of the Spanish in the early 1700s, early accounts indicate that Pima-speaking people lived along major drainages. One such community was the village of Bac on the Santa Cruz River, east of Black Mountain.

3.5.2 Archaeological Resources
Staff from the Tohono O’odham Cultural Affairs Office conducted a Class III cultural resources inventory of the entire project area in October 2008. Results indicated that no previously recorded cultural resource sites or traditional cultural places are located in the project area, nor were any cultural resource sites observed in the project area during the survey.

3.6 SOCIOECONOMIC CONDITIONS

3.6.1 Employment and Income
In 2000, the unemployment rate on the Tohono O’odham Reservation was 9.9 percent; the rate for the San Xavier District is unavailable. Of the population age 16 or over, approximately 59 percent were not in the labor force (U.S. Census Bureau 2000). Median annual household income for the Reservation was $19,970. The San Xavier District planner, council, legislative council representatives, community groups, and individuals outline their desire for increased employment and standards of living in the “Vision for San Xavier” (1990).

Residents of the San Xavier District are employed on the Reservation and in surrounding communities. The major employers on the District include the Indian Health Service Clinic,
businesses that lease land at the San Xavier Business Park (which include the Desert Diamond, Casino and Caterpillar, a maker of heavy equipment), Foreign Trade Zone, ASARCO Inc., Mission School, and District government offices. Traditional livelihoods, such as farming and ranching, are currently being revived, with farming expected to take on increased importance with the rehabilitation of the San Xavier Cooperative Farm. Many District residents are self-employed as artisans or in various trades. Outside the District, community members work for the tribal government in Sells or for businesses in Tucson.

In general we believe the socio-economic benefits to the community will be positive. We reviewed and researched any potential impacts of noise, traffic, displacement, and employment. We noted no negative potential impacts. The presence of a Regional Detention Center in an area of grassland and pasture lands is not expected to have any negative noise or vibration impacts.

### 3.6.2 Demographic Trends

Between 1990 and 2000, the population of Pima County grew by 26.5 percent while the population of Arizona grew by 40 percent (Table 5). During the same period, the Tohono O’odham Reservation population increased by 23.6 percent (Census Bureau 1990, 2000).

#### Table 5. Population Growth in Pima County and the State of Arizona from 1970-2000

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Arizona</td>
<td>1,775,399</td>
<td>2,716,546</td>
<td>3,665,228</td>
<td>5,130,632</td>
</tr>
<tr>
<td>Pima County</td>
<td>351,667</td>
<td>531,443</td>
<td>666,880</td>
<td>843,746</td>
</tr>
<tr>
<td>Tohono O’odham Reservation</td>
<td>n/a</td>
<td>n/a</td>
<td>8,730</td>
<td>10,787</td>
</tr>
</tbody>
</table>

*Source: U.S. Bureau of Census*

By 2004, the San Xavier District within the Tohono O’odham Reservation had a population of 2,238 (Arizona Department of Health Services 2005). Demographic data for the District indicate a relatively young population, with 37% of the population under the age of 20 in 2005. High school graduates in 2005 accounted for 37.9% of the population.

### 3.6.3 Community Infrastructure

The primary paved roads that serve the project area are: Interstate 19, Pima Mine Road and the Nogales Highway (see also Section 3.7.5 Transportation Networks). Nogales Highway is under the jurisdiction of and maintained by Pima County. The Pima County Department of Transportation has raised no objections to the project, and current roads are deemed adequate to serve all traffic needs.

The public and private utilities that currently serve the San Xavier District are as follows:

- **Natural Gas** – The area is serviced by Southwest Gas Corporation by a main gas line that parallels the Nogales Highway. This line enters San Xavier Business Park at Pan Tak Road, and then enters the existing casino just 2 or 3 miles from the subject. The gas service for the proposed development would consist of a two inch (2”) gas line that would connect into the existing gas line in Pan Tak Road and could easily be extended to the subject if required. Service to the proposed development would originate at this connection, from which a one
and one-half inch (1.5”) gas line would continue along Pima Mine Road to provide service to the development. The Tohono O’odham Utility Authority would construct the new gas lines.

- Electric – Tohono O’odham Utility Authority
- Telephone – Qwest
- Water - Water service in the surrounding community is provided by the Tohono O’odham Utility Authority, although domestic water service to the San Xavier Business Park and the adjacent Free Trade Zone are provided by Tucson Water, a division of the City of Tucson. The domestic water and fire protection supply for the proposed development will come from a private well system and a private sealed water treatment system, designed in compliance with all federal and state regulations and specifications.
- Sewer – Sewer service in the surrounding community is provided by the Tohono O’odham Utility Authority, although sewer service to the subject development will be by the above described private sewer treatment system build in accordance with standards utilized in prisons throughout the United States and in compliance with all regulations.
- Solid Waste – The subject development and the District will contract with a private contractor for the disposal of solid waste.

Community resources include the fire department and police department operated by the Tohono O’odham Nation, and a road system constructed and maintained by the BIA Branch of Roads and Pima County. There are two schools on the San Xavier District: San Xavier Mission School (private parochial) and Head Start (early childhood). Other students attend Tucson public schools, charter schools, and boarding schools. Through contracts with Indian Health Services, the Nation has a transportation service, Community Health Representative Program, Director of Health Services, and a clinic.

3.6.4 Environmental Justice
Executive Order 12898, dated February 11, 1994, established the requirement to address environmental justice concerns, within the context of agency operations. As part of the NEPA process, agencies are required to identify and address disproportionately high and adverse human health or environmental effects on minorities and low-income communities (Council on Environmental Quality 1997).

In compliance with Executive Order 12989, consideration was given to local minority and low-income groups that may be affected by the Proposed Action. The subject development is in agreement with the concept of compliance with economic development for the area, and agrees with the Tohono O’odham Nation and local community as described in the 1990 document “Vision for San Xavier.” Tohono O’odham members would be given preference for permanent employment positions, so long as this does not violate any employment law or regulations, although it is possible that Native Americans of other tribes or non-Native Americans would fill some short-term positions, including construction phase employment. The proposed project would not result in disproportionately high and adverse human health or environmental effects on minorities and low-income communities.
3.6.5 Indian Trust Assets
The BIA, as a federal agency, is charged with protection of Indian Trust Assets. Secretarial Order 3175 (Department Responsibilities for Indian Trust Assets), incorporated into the Departmental Manual at 512 DM 2, indicates that if the actions of a Department of the Interior (DOI) agency might impact Indian trust resources, the agency must explicitly address those potential impacts in planning and decision documents as well as consult with the tribal government whose trust resources are potentially affected by the federal action.

In addition, pursuant to the Executive Order 13175 of November 6, 2000, and in consultation with tribes, a government-to-government consultation policy has been issued. Consultation means a process of government-to-government dialogue between the BIA and Indian tribes regarding proposed federal actions in a manner intended to secure meaningful and timely tribal input. It is through this government-to-government relationship that the BIA has a duty to consult with tribal governments. The purpose of this consultation policy is to set forth appropriate guidelines that are understood and adhered to by all parties. It is vital to the health of the government-to-government relationship that all contacts and consultation with Indian tribal leaders and the BIA be conducted in a professional and respectful manner and in accordance with the set guidelines.

3.7 RESOURCE USE PATTERNS

3.7.1 Hunting, Fishing, Timber harvesting, and Gathering
No hunting, fishing, or gathering occurs on the parcel. No large-scale timber harvesting activities occur on or in the immediate vicinity of the project area. Some community members gather wood for household use 4 miles west of the project area and in scattered areas where there is vegetation. This consists of harvesting dead mesquite trees and dead and fallen branches from mesquite trees along the Santa Cruz River.

3.7.2 Mining
No mining activities occur on or in the immediate vicinity of the project area. There are many mines in the county though. The ASARCO Mission Complex, an open pit copper mine in operation since the late 1950s, is located in the southern portion of the District, approximately seven miles from the project site. The mine has affected groundwater and soils in the immediate area (Pima Association of Governments 1983). The refining process ASARCO uses creates tailings that are deposited in ponds on the District. These tailings contain some copper, high levels of calcium and sulfate, and are probably saturated with gypsum (Pima Association of Governments 1983). Known groundwater contamination from these ponds includes elevated sulfate levels, TDS, and hardness in the aquifer adjacent to and below the ponds. Tailings and/or water from these ponds can enter District washes under extreme conditions. Such an event occurred in 1990, when a tailings pond dam broke and released large volumes of tailings and water into a wash. Tailings were deposited more than 3 miles downstream of the tailings facility and 2 miles downstream of the Central Arizona Project pipeline. Extensive soil sampling for metals contamination following this event indicated that the discharge did not result in hazardous metal levels in the soils on the District (Shaffer 1993). The spilled tailings were not believed to be a health risk.

3.7.3 Agriculture
The San Xavier Cooperative Association operates the San Xavier Cooperative Farm, which grows alfalfa, hay, squash, tepary beans, and other traditional crops without the use of herbicides or pesticides. The Cooperative sells this produce to community members and is developing a more widespread consumer base. The San Xavier Cooperative Farm is located in the general area.

The Cooperative Farm is planning to rehabilitate fields and expand operations over the next few years. The effort consists of rehabilitating approximately 800 acres of currently fallow fields in the existing farm area west of I-19. An extension farm east of I-19 will consist mostly of land that has not been farmed in the past, although some fallow fields exist in the area.

The land to the southeast of the proposed Regional Detention Center, north of Pima Mine Road and east of the San Xavier District boundary is old retired farm land that was owned by ASARCO at one time, but was taken over by the City of Tucson and CAWCD for the purpose of constructing their Pima Mine Road recharge facility. Except for the recharge basins and water distribution infrastructure, the land is mostly vacant. The land 3/4 miles south of the subject is a corporate office and land to the southeast, south of East Pima Mine Road, is a pecan orchard. Adjoining land west (and southwest) of the subject is allotted tribal land, not utilized for agriculture.

### 3.7.4 Recreation

The subject site’s proximity to the District Center, Education Center and Mission Manor Park pose no impact to recreational issues. No organized recreational activities occur in the project area. Recreational opportunities on the San Xavier District are based at the District Center and the Education Center, which are located a few miles from the project site, across Interstate 19 and the Santa Cruz River. They consist of youth basketball programs, youth after-school programs, and other sports leagues. The District Education and Recreation Departments are considering expanding these programs to include softball, volleyball, and toka (a traditional Tohono O’odham sport). Arts and crafts classes are offered at the District Center. There are two softball fields and numerous unmarked trails and opportunities for outdoor recreation, such as hiking and horseback riding, on District lands. The Recreation Center contains basketball courts, an indoor gym, and space for aerobic exercise equipment and free weights. Non-athletic recreational pursuits include private dances and parties, as well as District-sponsored events such as community Halloween and Christmas parties. Although a small neighborhood park (Mission Manor) is located approximately two and one-half miles northwest of the project site, no parks exist within District boundaries.

### 3.7.5 Transportation Networks

The existing roadway network within a few miles of the subject includes Los Reales Road, Komelic Drive, Pan Tak Road, Topawa Drive, Nogales Highway, Valencia Road, 12th Avenue, Aero Park Boulevard, Hermans Road, Pima Mine Road and San Xavier Road. According to the Pima County Department of Transportation, Valencia Road is classified as an urban principal arterial. Nogales Highway is classified as an urban minor arterial, and Los Reales Road, 12th Avenue, Hermans Road, and San Xavier Road are classified as urban collectors. No other study area roadways are classified (Kimley-Horn and Associates 2006).

Nogales Highway, in the vicinity of the subject, currently provides two lanes in each direction with a continuous left-turn lane. Projected traffic volumes from the Pima Association of Governments (PAG) 2030 regional transportation model indicate that daily volumes along
Nogales Highway south of Valencia Road may approach 70,000 to 85,000 vehicles per day. Based on the volumes, it is anticipated that Nogales Highway will need to provide six lanes of travel to accommodate future regional traffic volumes. The PAG’s 2030 Regional Transportation Plan (RTP) identifies Nogales Highway as a 6-lane parkway from Old Vail Road to Valencia Road, with an estimated widening time frame later in the RTP scope (2020-2030) (Kimley-Horn and Associates 2006).

Los Reales Road west of Nogales Highway currently provides one lane in each direction. While no improvements are currently planned for this roadway, projected traffic volumes from the PAG 2030 regional transportation model indicate that daily volumes may exceed 22,000 vehicles per day. Based on these volumes, it is anticipated that Los Reales will need to provide four lanes of travel to accommodate future regional traffic demands (Kimley-Horn and Associates 2006).

Pima Mine road and other general roads in the area appear to be adequate to handle traffic needs for the subject, considering that the subject will increase traffic an estimated 400 to 600 cars passing per day.

3.7.6 Land Use
In 1992 the San Xavier District adopted a District General Plan for Land Use and Transportation (San Xavier District 1992). This Plan sets guidelines for development on the District and includes a summary of different land uses that may be pursued and where community facilities are to be located. District land is divided into the following categories: single family residential, multi-family residential, public and social, commercial, industrial, agricultural, grazing, mining, and open space. The project area is located in an open vacant area.

Land use near I-19 of the planned development is a mix of commercial, residential, office space, and light and general industrial. Land uses to the north and to the west of the planned development are primarily residential, while Raytheon, Tucson International Airport, and office space are located to the east. Commercial land uses in the area are limited to the retail store located on the corner of Los Reales Road and Nogales Highway (Kimley-Horn and Associates 2006). Adjacent lands of the subject site to the west and north are undeveloped tracts utilized for grazing. The land to the east is an abandoned farm currently owned by the City of Tucson. Approximately 1 mile south of the project site, a commercial business supporting the mining industry is present.

A site Vicinity Map is included in Figure 12 on the following page and indicates the proximity of the various land uses to the subject site.
A. 3.81 miles South is the Anza Trail School
B. 4.25 miles South is Sahuarita Primary School
C. 3.97 miles Southeast is the Sahuarita Edge High School
D. 4.34 miles Southeast is Sahuarita Baptist Church
E. 1.51 miles West is a casino and restaurant
F. 4.39 miles Northeast is Summit View Elementary School
G. 7.70 miles Northeast is the local airport
H. 7.35 miles Northwest is San Xavier Mission Church and San Xavier Mission School

Figure 12 – Site Vicinity Map (Proximity To Other Land Uses)
3.8 Other Values

3.8.1 Wilderness
No designated wilderness areas occur within or immediately adjacent to the parcel.

3.8.2 Sound and Light
Existing noise levels on the parcel are typical of noise levels for parcels located in a sparsely undeveloped area. Primary sources of noise are overhead aircraft and vehicular traffic on West Pima Mine Road. Sound factors on Pima Mine Road are considered minimum. Light should not affect or disturb any residential development since there is no human population and sparse human and animal population in the area. Noise levels of subject after development will be considered non intrusive (as noted with specific ratings in Edition #1).

3.8.3 Public Health and Safety
The Tohono O’odham Nation’s police department provides law enforcement services to the immediate area including to the proposed project area. The Tohono O’odham Nation’s police department maintains a police station within the San Xavier District. The Tohono O’odham Nation’s fire department maintains a fire station within 6 miles of the proposed project site.

The project site is located east of I-19 and 3/4 miles north of East Pima Mine Road, near aquifer pumping stations, approximately 0.4 mile west of Nogales Highway. The subject site is five miles south of the Tucson International Airport. The heights of the proposed Regional Detention Center comply with the requirements of Part 77 of the Federal Aviation Regulations. The FAA has not been contacted since the project site does not lie within the flight path of the airport, or any FAA restricted building area/zone in regards to the Tucson Airport. Project construction is a one-story structure with a maximum roof height of 35 feet above ground level, which is well below the height of the surrounding transmission lines and utility poles.

3.8.4 Solid and Hazardous Waste
Solid and hazardous waste generated from the Regional Detention Center will be disposed of offsite at an approved landfill. The proposed project will include an onsite water treatment and sewer system.

3.8.5 Visual
Existing visual resources include views to Martinez Hill to the North and Black Mountain to the northwest of the site. Due to the flat nature of the site and the proposed one story building structure visual impacts are anticipated to be negligible.
CHAPTER 4

ENVIRONMENTAL CONSEQUENCES

The environmental effects that likely would result from the construction of the Regional Detention Center are described in this chapter. The various types of impacts, if any, are defined and impact locations are identified. Impacts can be direct or indirect, adverse or beneficial, and short or long term. Short-term impacts are generally considered to be from one to two years long. Long-term impacts are considered to be from 10 to 30 years.

4.1 LAND RESOURCES

4.1.1 Proposed Action
The effects this project would have on Erosion, Slope, and Soil Suitability, Geology, Minerals and Topography would be negligible. The project would not involve development in an erosion sensitive area. There would be a minor short term effect on erosion due to construction which will be addressed by the SWPPP and Erosion control measures monitored by the EPA. Minor long-term beneficial effects to land resources would occur due to the addition of vegetation associated with project landscaping and maintenance of landscaping.

4.1.2 No Action Alternative
Under the no-action alternative, there may be continued gradual degradation of the site resulting from the current lack of vegetation, as a result of general dry conditions, which seem to have become worse in recent years.

4.2 WATER RESOURCES

4.2.1 Water Quality

4.2.1.1 Proposed Action
Groundwater - The project would have negligible impact on groundwater quality. The groundwater table is between 20 to 400 feet deep according to the District’s Hydrologist and well logs available in the vicinity of the project site. A depth to water table chart for the subject site can be found in the Appendix, Exhibit A-12 and A-13. This project will include the construction of onsite water wells and a wastewater treatment system described in Chapter 1. The Wastewater treatment plant will prevent any untreated water from leaving the site or entering the aquifer by use of package treatment and storage of treated water in lined evaporative ponds.

Surface Water - The project would have a negligible impact on surface water quality. No surface water is to be utilized and the construction is such that water flows will not be changed or impacted to any great degree. Site grading will be performed to maintain the general flow patterns of surface water from southwest to northeast. An SWPPP will be completed for the project as required by the EPA for its National Pollution Discharge
Elimination System Construction General Permit (GCP) under section 402 of the Clean Water Act. Site design and construction of the project will include Storm water detention/retention ponds constructed to collect and release storm water at pre-developed rates and conditions. These ponds will be designed in accordance with EPA guidelines and best Management Practices (BMP’s).

4.2.1.2 No Action
Under this alternative, there would be no change in current water quality for either groundwater or surface water.

4.2.2 Water Quantity
4.2.2.1 Proposed Action
Water usage for this project will have negligible impact on water quantity for the District. During construction of the project will be from offsite and off tribal land, and will be obtained from Pima County. Water consumption (from Offsite Sources is calculated to be as follows:

1. Drinking water - 200 gallons per day
2. Construction water for concrete - 563 gallons per day
3. Water for excavation activities - 1,000 gallons per day
4 Miscellaneous water for the project - 100 gallons per day
   Total 1,863 gallons per day

Water Usage following completion of the project and long term operation of the facility is based on 75 gallons per inmate per day which yields 112,500 gallons per day. This converts to 126 acre feet per year. This amount does not create an undue burden on the District’s allotment of water. The project will be required to apply for this water use pursuant to the Nation’s Interim Allottee Water Code.

4.2.2.2 No Action Alternative
Under this alternative there would be no change in water quantity.

4.2.3 Water Use
4.2.3.1 Proposed Action
No negative impacts to the water usage the District now has are anticipated. Water use for the proposed project would be for construction water as defined above, domestic consumption and use by the inmates and personnel during operation of the facility and for Fire protection if need in the event of a fire emergency. The 75 gallons per inmate per day includes all personnel. Daily water consumption will vary based on the number of inmates at any given time. The 75 gallons per day is derived from the following average daily usages:

Kitchen (meal prep and dish washing) 10 gallons/day
Toilet Use 20 gallons/day
Shower 20 gallons/day
Laundry Facilities 10 gallons/day
General Cleaning and drinking 15 gallons/day
   Total 75 gallons/day
Fire protection water supply would be provided from the fire suppression system and storage tank system to be built on the premises in accordance with accepted standards.

4.2.3.2 No Action Alternative
Under the No action Alternative, there would be no change in current water usage.

4.2.4 Water Rights
4.2.4.1 Proposed Action
Under the Proposed Action there would be no change in water rights of the District. There would be a slight decrease in the amount of water available to the Districts if the project proceeds.

4.2.4.2 No Action Alternative
Under the no action alternative there would be no change in water rights of the District.

4.2.5 Floodplain
4.2.5.1 Proposed Action
The project will not have any impact on floodplain since the project is not contained within a floodplain designated by FEMA. Additional analysis will be given to this project and an independent hydrology study will be prepared prior to construction to ensure building elevations are above potential sheet flow flooding. The tracts of land to the East of the subject site indicate that sheet flow flooding could occur on those tracts. Flood frequency charts obtained from the Natural Resources Conservation Service for the subject site are included in the Appendix, Exhibits A-14 through A-17.

4.2.5.2 No Action Alternative
Under the no action alternative there would be no impact to floodplain areas.

4.3 Air Resources
4.3.1 Proposed Action
Under the Proposed Action, construction activities associated with development of the project would result in unquantifiable short-term increases in level of dust (PM$_{10}$ emissions). During the mass excavation of the project site, the earthwork subcontractor would have a storage water tank on site and would be periodically watering the site to provide dust control. Throughout the duration of the project the general contractor and its subcontractors would be responsible for providing dust control. The water used for providing dust control would be from wells already discussed.

The expected increase in vehicular traffic to and from the proposed Regional Detention Center would likely result in a small but unquantifiable long-term increase in vehicle emissions and dust.
4.3.1 Mitigation Measures
This impact would be temporary and partially mitigated by implementing the “General Construction Guidelines” of the Nation. Key elements of these guidelines include:

- construction sites should be cleaned daily to eliminate wind scattered debris;
- grading shall be limited to the scope of each project or to less than six months of construction, whichever is less; and
- excessive areas of bare soil would be watered using water trucks to minimize dust during the construction phases.

4.3.2 No Action Alternative
This alternative would result in no short-term or long-term changes in air quality.

4.4 Biological Resources

4.4.1 Proposed Action
Special Status Species - No impacts to any federally threatened, endangered, proposed, or candidate species are anticipated as a result of the project. The federally endangered species list identified the Pima pineapple cactus as the only known endangered species to occur in the vicinity of the project area. However, none were recorded within the boundaries of the proposed project during the site survey.

Wildlife Resources – The proposed project does not occur in the vicinity of any proposed or designated Critical Habitat. Because impacts to habitat would be limited, it is unlikely that any wildlife would be displaced, even temporarily, from the project area. Impacts to wildlife habitats would, therefore, be negligible.

Migratory Birds – No Impact to migratory birds is anticipated as a result of this project, since no evidence of migratory birds were found at the site during the site survey.

Vegetation - The proposed project would not result in the permanent loss of native desert vegetation except in the specific construction site. No impacts of noxious weeds and invasive species are anticipated as a result of the construction or long term operation of the facility.

Wetlands - No impact to wetlands would occur as a result of this project since there are no wetlands present on the site.

4.4.1.1 Mitigation
Mitigation for biological resources include covering trenches at the end of the workdays, preconstruction surveys for any species or migratory birds, washing construction vehicles to prevent spread of noxious weeds, and plant salvage, including Barrel Cactus, requirements will all be utilized by contractors as deemed relevant and appropriate.

4.4.2 No Action Alternative
Under this alternative, there would be no impact to the biological resources.
4.5 CULTURAL RESOURCES

4.5.1 Proposed Action
There are no known cultural resource sites, including traditional cultural properties, in the project area. The BIA Regional Director has determined that requirements for the NHPA have been satisfied under 36 CFR 800 for this project based on consultation with the Tohono O’odham Nation and State Historic Preservation Office (SHPO) and that no further steps are necessary. The Arizona SHPO has concurred with the determination of “No Historic Properties Affected” on the subject site by signature dated December 11, 2008. A copy of correspondence from the Deputy Regional Director to the SHPO is included in the Appendix, Exhibit A-18, A-19, and A-20.

4.5.1.1 Mitigation Measures
The San Xavier District requires that an archaeological monitor be present for all construction in the project area. In the event that buried historic or prehistoric artifacts or features are encountered during construction, work should be halted in the immediate vicinity of the find and the San Xavier District and the Cultural Affairs Program be contacted immediately so that the discovery can be evaluated.

4.5.2 No Action Alternative
Under this alternative, there would be no changes to the property, so there would be no impact to cultural resource sites, including traditional cultural properties.

4.6 SOCIOECONOMIC CONDITIONS

4.6.1 Proposed Action
The residents of the Tohono O’odham Nation (population 10,787) and eastern Pima County would likely fill new employment opportunities associated with the proposed project. The existing labor force would likely fill the Regional Detention Center jobs without attracting new residents to the area because of the high level of unemployment in the Nation and the preference for hiring tribal members.

There would be no adverse impact on employment and income patterns resulting from this project. There is a potential beneficial impact as the proposed Regional Detention Center would offer increased job opportunities for tribal members. During the construction phase, the project would create new temporary labor positions. Following construction, the project will bring from 250 to 300 jobs to manage and service the Detention facility depending upon occupancy. Annual payroll would be in the range of $6.0 to 7.0 million dollars. It is estimated that salaries turnover in the local economy by a factor of five through procurement of goods and services by employees and vendors. The Proposed Action would not disproportionately adversely affect minorities or low-income communities. Job hiring has not yet begun and salary or income levels are not yet determined.

The Proposed Action would address the socioeconomic needs of Tohono O’odham members, thereby serving the short-term and long-term interests of the Tohono O’odham Nation and non-tribal residents living in general vicinity. The project would be a benefit to Indian Trust Assets
because it provides alternative sources of income on underutilized, previously unproductive land. In addition, revenue from the Regional Detention Center operations would provide a significant amount of funding for various services desired by members of the Tohono O’odham Nation.

4.6.2 No Action Alternative
The no action alternative could provide a negative impact to the Socio-economic conditions of the District. This would occur by losing potential jobs, procurement service opportunities and loss of an opportunity by the District to diversify its economic base.

4.7 RESOURCE USE PATTERNS

4.7.1 Hunting, Fishing, Timber harvesting, Gathering, Mining, Agriculture, and Recreation

4.7.1.1 Proposed Action
No major hunting, fishing, timber harvesting, gathering, mining, agriculture, or organized recreation occurs on the parcel being considered in this EA. The proposed Regional Detention Center project is expected to have no impact on the ASARCO Mission Complex due to its distance from the project site. The proposed Regional Detention Center project is expected to have no impact on the Cooperative Farm. The proposed detention center project is expected to have no impact on the District Center, the Education Center, other recreational activities within the San Xavier District, or Mission Manor Park due to their distances from the project site. Therefore, under the Proposed Action, there would be no impact to these resource uses.

4.7.1.2 No Action Alternative
Under this alternative there would be no impact to hunting, fishing, timber harvesting, gathering, mining, agriculture, or organized recreation.

4.7.2 Transportation Networks

4.7.2.1 Proposed Action
The construction of new facility is expected to increase visits to the property, which would increase traffic impacts to the project area roadways. After the proposed development, all studied area intersections would operate at acceptable levels. Traffic on Pima Mine Road would be anticipated to increase in a range up to 600 cars per day passing this area. Current roads are adequate for this increase. Proposed Action therefore creates a negligible impact.

4.7.2.1.1 Mitigation Measures
Mitigation measures to traffic issues will include signage and lighting as required on Pima Mine Road during construction and at the completion of the project as determined by PIMA County to address the new intersection of the access road and Pima Mine Road.

4.7.2.2 No Action Alternative
Under this alternative, there would be no impact to the local transportation network as traffic levels would not increase due to the Regional Detention Center.
4.7.3 Land Use

4.7.3.1 Proposed Action
Under the Proposed Action, land use in the area will change from undeveloped land to a portion of the land being used as a Regional Detention Center. This will have no negative environmental impact. There are no impacts to proposed land use, including adjacent and nearby land users. There will be no impact to the community. Nearby schools, churches and/or businesses will not be impacted by the proposed land use.

4.7.3.2 No Action Alternative
Under the No Action Alternative, there would be no change in current land use and therefore, no Impact to land use.

4.8 Other Values

4.8.1 Wilderness

4.8.1.1 Proposed Action
There are no wilderness areas within or adjacent to the San Xavier District; therefore, no wilderness areas would be affected by the Proposed Action.

4.8.1.2 No Action Alternative
Under the no action alternative there would be no impact to wilderness areas.

4.8.2 Sound and Light

4.8.2.1 Proposed Action
One industrial business enterprise was identified approximately 1 mile south of the proposed project site. Under the Proposed Action, there would be a short-term increase in ambient noise levels during the construction phase of the project which would be short term and minimal. Following construction, vehicular traffic would increase, but associated noise levels would remain consistent with the current land use for the area. However, these impacts would be temporary and would only occur during normal business hours. Following construction, vehicular traffic would increase, but associated noise levels would remain consistent with the current land use for the area.

4.8.2.1.1 Sound and Light Mitigation
Construction hours on the exterior of the building will generally be limited to daytime hours. Exterior lighting for the Regional Detention Center project will utilize directional lenses on perimeter lighting as well as wall mounted light packs. This will provide the level of lighting required for security and minimize light pollution for surrounding areas.

4.8.2.2 No Action Alternative
Under the No Action Alternative, sound and noise would remain at the levels associated with the existing businesses and traffic.
4.8.3 Public Health and Safety

4.8.3.1 Proposed Action
There would be little or no impact to public health and safety under the Proposed Action. Vehicle-related injuries may increase as a result of increased traffic volume; however, the potential for vehicular accidents would be mitigated by the measures listed in Section 4.7.2.2. There will be a potential benefit to Public Health and Safety as a result of the project. National Studies have shown that crime decreases in areas adjacent to correctional facilities due primarily to the increase in law enforcement traffic and visibility.

4.8.3.2 No Action Alternative
Under a No Action alternative no impact will occur.

4.8.4 Solid and Hazardous Waste

4.8.4.1 Proposed Action
Under the Proposed Action, the Regional Detention Center will contract with a Solid waste disposal company and all Solid Waste will be disposed of in an off reservation approved landfill. Hazardous waste should be limited to medical and chemical waste associated with cleaning. The Facility Operator will have a hazardous waste management plan and will contain and contract for removal, transportation and disposal of all hazardous waste off reservation at an approved landfill.

4.8.4.2 No Action Alternative
Under the No Action Alternative, there would be no change in solid and hazardous waste status of the site.

4.8.5 Visual

4.8.5.1 Proposed Action
Coordination between the Tohono O’odham Nation cultural resources committee and the architect to design the buildings to reflect the cultural values of the Nation was completed. The new buildings would be consistent with the visual aesthetics of the current use and zoning of the property. No visual impacts to the area are anticipated.

4.8.5.2 No Action Alternative
If there is no action then there is no impact on visual resources.

4.9 COMPARISON OF ALTERNATIVES
Neither alternative would have significant adverse impacts to the resources considered in this environmental assessment. The Proposed Action would result in a net beneficial impact to the socioeconomic conditions by providing employment opportunities to members of the Tohono O’odham Nation and revenue to the San Xavier District. Under the Proposed Action, the District would begin to achieve the economic goals set forth in the 1990 “Vision for San Xavier.” Under the No Action alternative, the project area would remain in its current state; there would be no development of the Regional Detention Center.

In comparing alternative, it appears that the development of this project when considered with alternatives, has a positive impact on the tribe and no action maintains the status quo.

4.9.1 Summary of Cumulative Impacts
No adverse cumulative effects would result from the project. On the contrary, a net cumulative improvement to employment opportunities and revenues for the Nation would result from the increased employment and income generated by the Regional Detention Center.

4.9.2 Summary of Unavoidable Adverse Impacts
No unavoidable adverse impacts are anticipated from either the Proposed Action or No Action Alternative.
CHAPTER 5

CONSULTATION AND COORDINATION

The following agencies were consulted during the preparation of this EA:

Federal:
Bureau of Indian Affairs, Papago Agency
Bureau of Indian Affairs, Western Region Environmental Quality Services
Health and Human Service, Indian Health Service Tucson Area Office
US Environmental Protection Agency, Indian Programs Office
US Environmental Protection Agency, Wetlands Regulatory Office
US Fish and Wildlife Service, Tucson Office

State:
Arizona Department of Transportation (ADOT) – Tucson District Office
Arizona Game and Fish Department
Arizona State Historic Preservation Office

Local:
City of Tucson Department of Transportation
City of Tucson Engineering Division
City of Tucson Storm Water Section
City of Tucson Water Department
Pima County Department of Transportation
Pima County Department of Wastewater Management
Pima County Regional Flood Control District
Rural Metro Fire Department
Town of Sahuarita
Tucson Airport Authority

Tribal:
San Xavier Allottees Association
Tohono O’odham Nation, Cultural Affairs Program
Tohono O’odham Nation, Department of Public Safety
Tohono O’odham Nation, DPS Fire Department
Tohono O’odham Nation, Environmental Protection Agency
Tohono O’odham Nation, Natural Resources Committee of the Legislative Council
Tohono O’odham Nation, Natural Resources Department, Wildlife and Vegetation Management
Tohono O’odham Nation, Planning Department
Tohono O’odham Nation, San Xavier District Council
Tohono O’odham Nation, San Xavier District Hydrologist
Tohono O’odham Nation, Solid Waste Program
Tohono O’odham Nation, Utility Authority
CHAPTER 6

LIST OF PREPARERS

CERTIFIED ENVIRONMENTAL INSPECTORS (CEI)

Ben B. Boothe, Sr.
Certified Environmental Consultant #4989
Senior Environmental Manager

9800 Verna Trail North
Fort Worth, TX 76108
(817) 738-9595
bba_a@hotmail.com
www.environment-solutions.com

Chris Cuny
FC Cuny Corporation
#2 Horizon Court Ste 500
(469) 402-7700
crc@fccuny.com
Heath, Texas 75032

BIA - BUREAU OF INDIAN AFFAIRS
BIA Western Regional Office
Two AZ Center 12th Floor
400 North 5th Street
Phoenix, AZ 85004

The BIA Papago Agency
Circle Drive Bldg 49
Sells, Arizona 85634

Bureau of Indian Affairs representatives provided advice and assistance in preparation of this EA.
CHAPTER 7

REFERENCES


SWCA Environmental Consultants (SWCA), 2005.


USDA Natural Resources Conservation Service  Web Soil Survey 2.1 National Cooperative Soil Survey
APPENDIX
CHAPTER 5

CONSULTATION AND COORDINATION

The following agencies were consulted during the preparation of this EA:

Federal:
Bureau of Indian Affairs, Papago Agency
Bureau of Indian Affairs, Western Region Environmental Quality Services
Health and Human Service, Indian Health Service Tucson Area Office
US Environmental Protection Agency, Indian Programs Office
US Environmental Protection Agency, Wetlands Regulatory Office
US Fish and Wildlife Service, Tucson Office

State:
Arizona Department of Transportation (ADOT) – Tucson District Office
Arizona Game and Fish Department
Arizona State Historic Preservation Office

Local:
City of Tucson Department of Transportation
City of Tucson Engineering Division
City of Tucson Storm Water Section
City of Tucson Water Department
Pima County Department of Transportation
Pima County Department of Wastewater Management
Pima County Regional Flood Control District
Rural Metro Fire Department
Town of Sahuarita
Tucson Airport Authority

Tribal:
San Xavier Allottees Association
Tohono O’odham Nation, Cultural Affairs Program
Tohono O’odham Nation, Department of Public Safety
Tohono O’odham Nation, DPS Fire Department
Tohono O’odham Nation, Environmental Protection Agency
Tohono O’odham Nation, Natural Resources Committee of the Legislative Council
Tohono O’odham Nation, Natural Resources Department, Wildlife and Vegetation Management
Tohono O’odham Nation, Planning Department
Tohono O’odham Nation, San Xavier District Council
Tohono O’odham Nation, San Xavier District Hydrologist
Tohono O’odham Nation, Solid Waste Program
Tohono O’odham Nation, Utility Authority
# LIST OF ACRONYMS

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACA</td>
<td>American Correctional Association</td>
</tr>
<tr>
<td>ADEQ</td>
<td>Arizona Department of Environmental Quality</td>
</tr>
<tr>
<td>ADOC</td>
<td>Arizona Department of Corrections</td>
</tr>
<tr>
<td>ASARCO</td>
<td>American Smelting and Refining Company</td>
</tr>
<tr>
<td>ASTM</td>
<td>American Society for Testing and Materials</td>
</tr>
<tr>
<td>BIA</td>
<td>Bureau of Indian Affairs</td>
</tr>
<tr>
<td>CAP</td>
<td>Cooperative Agreement Program</td>
</tr>
<tr>
<td>CAWCD</td>
<td>Central Arizona Water Conservation District</td>
</tr>
<tr>
<td>CEC</td>
<td>Community Education Centers</td>
</tr>
<tr>
<td>CEI</td>
<td>Certified Environmental Inspectors</td>
</tr>
<tr>
<td>CERCLIS</td>
<td>Sites under review by USEPA</td>
</tr>
<tr>
<td>COE</td>
<td>Corp of Engineers</td>
</tr>
<tr>
<td>CORRACTS</td>
<td>RCRA Corrective Actions</td>
</tr>
<tr>
<td>DRW</td>
<td>DRW Engineering</td>
</tr>
<tr>
<td>EA</td>
<td>Environmental Assessment,</td>
</tr>
<tr>
<td>EMF’s</td>
<td>Electronic Magnetic Fields</td>
</tr>
<tr>
<td>ERNS</td>
<td>Emergency Response Notification System of Spills</td>
</tr>
<tr>
<td>FBOP</td>
<td>Federal Bureau of Prisons</td>
</tr>
<tr>
<td>GNRTR</td>
<td>RCRA Registered Small or Large Generators of Hazardous Waste</td>
</tr>
<tr>
<td>IBC</td>
<td>International Building Code</td>
</tr>
<tr>
<td>ICE</td>
<td>Immigration and Customs Enforcement</td>
</tr>
<tr>
<td>IGA</td>
<td>Intergovernmental Agreements</td>
</tr>
<tr>
<td>LUST</td>
<td>Leaking Underground Storage Tanks</td>
</tr>
<tr>
<td>NEPA</td>
<td>National Environmental Protection (Policy) Act</td>
</tr>
<tr>
<td>NHPA</td>
<td>National Historic Preservation Act</td>
</tr>
<tr>
<td>NPDES</td>
<td>National Pollutant Discharge Elimination System</td>
</tr>
<tr>
<td>NPL</td>
<td>National Priority List</td>
</tr>
<tr>
<td>OSHA</td>
<td>Occupational Safety and Health Administration</td>
</tr>
<tr>
<td>PE</td>
<td>Professional Engineer</td>
</tr>
<tr>
<td>Phase I</td>
<td>Environmental Inspection of Property with no sampling (ASTM)</td>
</tr>
<tr>
<td>RCRA Viol</td>
<td>RCRA Violations/Renforcement Actions</td>
</tr>
<tr>
<td>SAWRSA</td>
<td>Southern Arizona Water Rights Settlement Act</td>
</tr>
<tr>
<td>SHPO</td>
<td>State Historic Preservation Office</td>
</tr>
<tr>
<td>SOG</td>
<td>Special Operations Group</td>
</tr>
<tr>
<td>SPL</td>
<td>State Equivalent Priority List</td>
</tr>
<tr>
<td>SWLF</td>
<td>Permitted as Solid Waste Landfills, Incinerators, or Transfer Stations</td>
</tr>
<tr>
<td>SWPPP</td>
<td>Storm Water Pollution Prevention Plan</td>
</tr>
<tr>
<td>TRIS</td>
<td>Toxic Release Inventory Database</td>
</tr>
<tr>
<td>TSD</td>
<td>RCRA Permitted Treatment Storage, Disposal Facilities</td>
</tr>
<tr>
<td>USFWS</td>
<td>United States Fish and Wildlife Service</td>
</tr>
<tr>
<td>USMS</td>
<td>United States Marshal Service</td>
</tr>
<tr>
<td>UST/AST</td>
<td>Registered Underground or Above Ground Storage Tanks</td>
</tr>
</tbody>
</table>
LIST OF TABLES

Table 1 – Agency / Permits & Approvals.................................................................6
Table 2 – General Construction Project Questions and Responses.........................19
Table 3 - Federally Listed Species with the Potential to Occur in the Proposed Project Area... 31
Table 4 – Summary List of Threatened Endangered or Candidate Species (Pima County)……..33
Table 5 - Population Growth in Pima County and the State of Arizona from 1970-2000……..37

LIST OF FIGURES

Figure 1 - Subject Site Survey................................................................. 9
Figure 2 - Aerial view of 48.8 acres and 60’ access and utility easement................ 12
Figure 3 - Plan of Facility................................................................. 13
Figure 4 - Detention Center Floor Plan.................................................. 14
Figure 5 - Aerial Map with contours.................................................. 21
Figure 6 – Location Map (showing roadways and general site location) .......... 22
Figure 7 - San Xavier District Allotte Map (with subject site location)............. 23
Figure 8 – Flood Insurance Rate Map (Number 04019C2840 K) February 8, 1999.. 29
Figure 9 – Legend - Flood Insurance Rate Map (Number 04019C2840 K)......... 30
Figure 10 – Site Photographs................................................................. 34
Figure 11 – Site Photographs................................................................. 35
Figure 12 – Site Vicinity Map (Proximity to Other Land Uses)........................ 42
ABSTRACT

The purpose of this Environmental Assessment (EA) is to evaluate the San Xavier District’s (District) Proposed Action of entering into an agreement with a private contractor to provide detention services for 1500 detainees on a site located on the San Xavier Reservation. This EA addresses potential human and environmental impacts of the Proposed Action and its alternatives and is evaluated in accordance with the National Environmental Policy Act (NEPA) of 1969, as amended, and United States Department of Justice environmental guidelines.

BACKGROUND

In September 2006 the District began to investigate and pursue economic development opportunities related to locating a detention center within the boundaries of the Reservation. The District has determined that the opportunity exists to construct a regional criminal justice facility within the Reservation to provide an immediate and long-term need for approximately 1500 detention bed spaces for use by various agencies. The District is deemed to be an advantageous location based on the strong community support for this type of project, the proposed location’s proximity to US Courthouses located in Tucson and Phoenix, and the border patrol activities along the Mexican border. Potential users of this facility include: nearby cities; counties within the region; state agencies such as the Arizona Department of Corrections (ADOC); the United States Marshals Service (USMS); the Immigration and Customs Enforcement (ICE); Federal Bureau of Prisons (FBOP), the Bureau of Indian Affairs (BIA) and other criminal justice agencies/departments.

The District is desirous of entering into an agreement with a private operator to build and operate a facility in the San Xavier Reservation for the economic development opportunities such a facility could bring to its members. The high level of city, county, ICE, FBOP and USMS activity in the southwestern United States requires more beds than are readily available in local or state facilities. The shortage of beds has been ongoing for several years. There is a specific need for detention facilities to be located near federal courthouses because of its responsibility to detain those individuals accused of violating federal laws. Proximity to the courthouses can facilitate meetings with lawyers and family, and is logistically preferable when transporting detainees to court appearances. The proposed detention facility will be within 20 miles from the federal courthouse in Tucson and within 115 miles of the federal courthouse in Phoenix. Various city, county, state, and federal agencies are authorized to enter into contracts with private entities for the housing, care, and security of persons in its custody by the Anti Drug Abuse Act of 1988.

PROPOSED ACTION

This EA evaluates the impacts of the District entering into an agreement with a private contractor to provide detention services for up to 1500 detainees. The contractor on behalf of the District will design, finance, construct, and operate the proposed detention facility under a separate contract agreements. Due to a national jail space crisis, the ability of county, state and federal governments to provide adequate detention space for inmates, detainees and prisoners has become limited, especially in major metropolitan areas with federal courthouses.
FINDINGS

The procurement of detention services at a proposed location in the San Xavier Reservation meets a key requirement in that it is located in close proximity to a federal courthouse in Tucson. The implementation of obtaining detention services is not expected to have any adverse effects on environmental resources or socioeconomic conditions in the San Xavier Reservation or surrounding community. Implementation of detention services is not expected to have any adverse impact on geology, soils, topography and drainage, climate, cultural resources, surface water, groundwater, aquatic resources, wetlands, vegetation, wildlife resources, endangered species, prime and unique farmlands, or wild and scenic rivers. The cumulative effect of this Proposed Action is also not expected to have adverse impacts to the San Xavier Reservation or the surrounding communities; therefore, no major mitigation efforts are required for the development of this project at this location.

Beneficial impacts of the Proposed Action include economic development for the community, as well as the surrounding area. The Proposed Action and project site have received public support. The site selected by the proposed contractor is in an area removed from the residential population in a remote area (at the eastern edge) of the San Xavier Reservation, with existing utilities and excellent highway access. Safety and aesthetic concerns that may exist regarding the detention facility have been addressed in the concept design and security measures for construction are planned.
This is to verify that the subject San Xavier Detention Project has been an ongoing project for several years. We have had public meetings, and these have been advertised by public notice in appropriate local media, with Tribal leaders, members, and members of the community at large invited. At these meetings, the project has met with good support within the community.

Public meetings took place at the District Meeting Room located at 2018 W. San Xavier Road; Tucson, AZ 85746 on the following dates: 07/25/06 and 08/01/06. The environmental research, Phase I, and NEPA reports have been available for many months and are available for review by the public, at the tribal offices located at the Office of Economic Development, San Xavier District; 2018 W. San Xavier Road; Tucson, AZ 85746.

Signed: Ernie Reyes, Secretary
San Xavier District Council

cc: Austin Nunez
Jerry Carlyle
File copy
SAN XAVIER DISTRICT
OF THE
TOHONO O'ODHAM NATION
2018 W. SAN XAVIER RD., TUCSON, AZ 85746

LEGAL DESCRIPTION

SECTION 25, TWP16SO, R13E
SAN XAVIER DISTRICT
TOHONO O'ODHAM NATION

A portion of the Northeast 1/4 of Section 25, Twp16So, R13E, San Xavier District of the Tohono Nation described as follows:

COMMENCING at the southeast corner of said Section 25;
THENCE N0°38'04"W along the east section line of said Section 25, 4087.22 ft. to the POINT OF BEGINNING;
THENCE S56°10'01"W, 1542.58 ft.
THENCE N0°33'26"W, 2086.95 ft. to a point on the north line of said Section 25;
THENCE S89°15'17"E along said north line 1288.31 ft. to the NE corner of said Section 25;
THENCE S0°38'04"E along the east line of said Section 25, 1211.31 ft. to the POINT OF BEGINNING.

Said parcel containing 48.8 acres and subject to a 60 ft. ingress, egress and utility easement along the east 60 ft. of the south 4087.22 ft. of said Section 25.

Exhibit A- 2
November 21, 2008

Via Email

Ben B. Boothe, Sr.
BEN B. BOOTHE Sr. COMPANIES
benboothe@gmail.com

Re: San Xavier District / Federal Support Center

Dear Mr. Boothe:

In answer to your questions, and to assist you in responding to the Bureau of Indian Affairs, we provide the following information.

2. As General Counsel to the District, I actively participated in negotiations which resulted in the Southern Arizona Water Rights Settlement Act Amendments of 2004, which confirmed the rights to use of water on the San Xavier Reservation, and the Interim Allottee Water Code of the Tohono O'Odham Nation, which codified procedures for registering water uses. The Act assures that up to 10,000 acre-feet per year of groundwater may be withdrawn from lands of the District for use thereon. See PL 108-451, Sec. 308 (f)(1)(A). To my knowledge, all of this allocation remains available at this time. Your hydrologist estimated the needs of the project at 8250 gallons per day; this works out to 9.24 acre-feet per year, well within the available water. The project will be required to apply for recognition of this water use pursuant to the Nation's Interim Allottee Water Code. I am confident that nothing in the Code will allow for the Project's proposed use to be denied.

Please let my office know if there is any further assistance we can provide to move this matter forward.

Sincerely,

/s/
Louis W. Barassi

/g
Encl.
cc: Austin Nunez
    Jerry Carlyle
<table>
<thead>
<tr>
<th>COMMON NAME</th>
<th>SCIENTIFIC NAME</th>
<th>STATUS</th>
<th>DESCRIPTION</th>
<th>COUNTY</th>
<th>ELEVATION</th>
<th>HABITAT</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chiricahua leopard frog</td>
<td>Lithobates [Rain] cinctus-vari</td>
<td>Threatened</td>
<td>Cream colored tubercles (spots) on a dark background on the rear of the thigh, dorsal tubercles that are interrupted and deflected medially, and a call given out of water distinguished this spotted frog from other leopard frogs.</td>
<td>Cochise, Coconino, Gila, Graham, Greenlee, Navajo, Pima, Santa Cruz, Yavapai</td>
<td>3,200-8,100 ft</td>
<td>Streams, rivers, backwater, ponds, and stock tanks that are mostly free from introduced fish, crayfish, and bullfrogs.</td>
<td>Requires permanent or nearly permanent water sources. Populations north of the Gila River may be a closely-related, but distinct, undescribed species. A special rule allows take of frogs due to operation and maintenance of fish stock tanks on State and private lands.</td>
</tr>
<tr>
<td>Desert pupfish</td>
<td>Cyprinodon macularius</td>
<td>Endangered</td>
<td>Small (2 inches) smooth and rounded body shape with narrow vertical bars on the sides. Breeding males blue on head and sides with yellow on tail. Females and juveniles tan to olive colored back and slight sides.</td>
<td>Cochise, Gila, Maricopa, Pima, Santa Cruz, Yavapai</td>
<td>&lt; 4,000 ft</td>
<td>Shallow springs, small streams, and marshes. Tolerates saline and warm water.</td>
<td>Two subspecies are recognized: Desert Pupfish (C.m. macularius) and Quitobaquito Pupfish (C.m. arizonicus). Critical habitat includes Quitobaquito Springs, Pima County, tributaries of San Felipe Creek, Campo Wash, and Ruth Creek Wash, Imperial County, California.</td>
</tr>
<tr>
<td>Gila topminnow</td>
<td>Poeciliopsis ocellata occidentalis</td>
<td>Endangered</td>
<td>Small (2 inches), guppy-like, live bearing, lacks dark spots or fins. Breeding males are bluish with yellow fins.</td>
<td>Cochise, Graham, Greenlee, Pima, Pinel, Santa Cruz, Yavapai</td>
<td>&lt; 4,000 ft</td>
<td>Small streams, springs, and cenotes vegetated shallows.</td>
<td>Species historically also occurred in backwaters of large rivers but is currently isolated to small streams and springs.</td>
</tr>
<tr>
<td>Huachuca water umbil</td>
<td>Lithobates atriphysa var. recurva</td>
<td>Endangered</td>
<td>Herbaceous, semi-aquatic perennial in the pond family (Umbelliferae) with slender erect, to-brew, leaves that grow from the nodes of creeping rhizomes. Flower: 3 to 10 tubular, sessile, white, from root nodes.</td>
<td>Cochise, Pima, Santa Cruz</td>
<td>3,500-6,500 ft</td>
<td>Cenopes, perennial low gradient streams, wetlands.</td>
<td>Species also occurs in adjacent Sonora, Mexico, west of the continental divide. Critical habitat in Cochise and Santa Cruz counties (64 FR 37441, July 12, 1999).</td>
</tr>
<tr>
<td>COMMON NAME</td>
<td>SCIENTIFIC NAME</td>
<td>STATUS</td>
<td>DESCRIPTION</td>
<td>COUNTY</td>
<td>ELEVATION</td>
<td>HABITAT</td>
<td>COMMENTS</td>
</tr>
<tr>
<td>-------------</td>
<td>----------------</td>
<td>--------</td>
<td>-------------</td>
<td>--------</td>
<td>-----------</td>
<td>---------</td>
<td>----------</td>
</tr>
<tr>
<td>Jaguar</td>
<td>Panthera onca</td>
<td>Endangered</td>
<td>Largest species of cat native to Southwest. Muscular with relatively short, massive limbs and a deep-chested body. Usually cinnamon buff in color with rusty black spots. Weights range from 90-300 lbs.</td>
<td>Cochise, Santa Cruz, Pima</td>
<td>1,600-3,000 ft</td>
<td>Found in Sonoran desert scrub up through subpine forest.</td>
<td>Also occurs in New Mexico. A Jaguar conservation team is being formed that is being led by Arizona and New Mexico state entities along with private organizations.</td>
</tr>
<tr>
<td>Kneehole yucca</td>
<td>Aloe arborescens</td>
<td>Endangered</td>
<td>A herbaceous perennial that is 2 to 3 feet tall and has the appearance of a small tree. Flowers appear in April and May.</td>
<td>Cochise, Graham, Pima, Santa Cruz</td>
<td>3,000-3,800 ft</td>
<td>West-facing slopes in the Baboquivari Mountains.</td>
<td></td>
</tr>
<tr>
<td>Lesser long-nosed bat</td>
<td>Leptonycteris curasoae variegata</td>
<td>Endangered</td>
<td>Long-nosed bat with a long nose and large ears. Attains flight speed of 150 miles per hour.</td>
<td>Cochise, Gila, Graham, Pima, Pinal, Maricopa, Yuma</td>
<td>1,600-11,500 ft</td>
<td>Desert scrub habitat with agave and cacti. Presence of food plants.</td>
<td>Day roosts in canyons and abandoned mines. Forages at night in search of nectar, pollen and fruit.</td>
</tr>
<tr>
<td>Masked bobwhite</td>
<td>Colinus virginianus ridgwayi</td>
<td>Endangered</td>
<td>Birds have a bristly breast and black head and throat.</td>
<td>Pima</td>
<td>1,000-4,000 ft</td>
<td>Desert grasslands with diversity of some native grasses, forbs, and brush.</td>
<td>Species is closely associated with Parthenium argentatum. Formally occurred in the San Tan Valley, as well as Sonora, Mexico. Presently only known from reintroduced populations on the Sonoran Desert.</td>
</tr>
<tr>
<td>Mexican spotted owl</td>
<td>Strix occidentalis nuttallii</td>
<td>Threatened</td>
<td>Medium-sized gray owl with dark eyes and ear tufts. Brownish and heavily spotted with white or white.</td>
<td>Apache, Cochise, Coconino, Gila, Graham, Greenlee, Maricopa, Navajo, Pima, Pinal, Santa Cruz, Yavapai</td>
<td>4,100-9,000 ft</td>
<td>Nest in canyons and dunes with multi-layered foliage structure.</td>
<td>Generally nests in older forests of mesquite, oak, pine, and ponderosa pine forests. Not typical of the habitats for this species. Sites with rare shrubs are likely to be preferred. Critical habitat was delineated on August 31, 2004 (59 FR 50382). In Arizona, there are 88,000 acres of critical habitat.</td>
</tr>
</tbody>
</table>

Wednesday, March 04, 2009
Pima County
<table>
<thead>
<tr>
<th>COMMON NAME</th>
<th>SCIENTIFIC NAME</th>
<th>STATUS</th>
<th>DESCRIPTION</th>
<th>COUNTY</th>
<th>ELEVATION</th>
<th>HABITAT</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nipto Tuskhead Cactus</td>
<td>Echinocactus horizonthalonius var. microrhizus</td>
<td>Endangered</td>
<td>Blue-green to yellowish green, columnar, 18 inches tall, 9 inches in diameter. Spine clusters have 6 radials 9 central spines; one spine is downward and its 6.2 spines come upwards and are red or pale gray. Flowers: pink, that wolly white.</td>
<td>Pima, Pinal</td>
<td>2,400-4,100 ft</td>
<td>Sonoran desert scrub.</td>
<td>Found in unshaded microsites in Sonoran desert scrub on dissected alluvial fans at the foot of limestone mountains and on inclined terraces and saddles on limestone mountain ridges.</td>
</tr>
<tr>
<td>Coelot</td>
<td>Leocerda (Felts) pedalis</td>
<td>Endangered</td>
<td>Medium-sized spiny cactus that is yellowish with black stems and stripes running from front to back. Tall is spotted and about 1/2 the length of head and body. Face is less than 1/2 that of the back and sites.</td>
<td>Cochise, Pima, Santa Cruz</td>
<td>&lt; 8,000 ft</td>
<td>Desert scrub in Arizona.</td>
<td>Huhului, tropical and sub-tropical forests, and savannahs in Arizona. Confirmation report of individuals in the southern part of the state continue to be received.</td>
</tr>
<tr>
<td>Pima Pineapple Cactus</td>
<td>Coryphantha schreib var. fasciculata</td>
<td>Endangered</td>
<td>I-multiples 4 cm, 4.7 inches tall 54 inches diameter. Central spine 1 inch long, surrounded by 6 16 radial spines. Green, yellow, salmon, strings white arrow thorn-tube.</td>
<td>Pima, Santa Cruz</td>
<td>2,200-4,000 ft</td>
<td>Sonoran desert scrub of semiarid grassland communities.</td>
<td>Occurs in lowland valleys or as hillocks in rocky to sandy or clay soils. This species can be confused with juvenile barrel cactus (Echinocactus). However, the spines of the later are flattened, in contrast with the round cross-section of the Coryphantha spines. About 90% of individuals occur on state or private land.</td>
</tr>
<tr>
<td>Sanxian Pangram</td>
<td>Arthrocene americana arizonicus</td>
<td>Endangered</td>
<td>Upwardly fun downhill, limp, and two bands across the neck and white. Male has two black spines on the back cover, jointed with slightly curved black horns having a single spines.</td>
<td>Maricopa, Pima, Yuma</td>
<td>2,000-4,000 ft</td>
<td>Sonoran desert scrub.</td>
<td>Typically, saguaro cacti are used as livestock and for dry and sandy parts of the desert. This subspecies also occurs in Mexico.</td>
</tr>
</tbody>
</table>

Wednesday, March 04, 2009
Pima County
<table>
<thead>
<tr>
<th>Common Name</th>
<th>Scientific Name</th>
<th>Status</th>
<th>Description</th>
<th>County</th>
<th>Elevation</th>
<th>Habitat</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>southwestern derby</td>
<td><em>Euphractus sexcinctus</em></td>
<td>Endangered</td>
<td>Small passerine (about 6 inches). Grayish-green back and wings, white face, olive-gray breast and pale yellowish body. Two wing buds visible. Eye-ring bicolored.</td>
<td>Apache, Cochise, Gila, Graham, Greenlee, La Paz, Maricopa, Mohave, Navajo, Pima, Pinal, Santa Cruz, Yavapai, Yuma</td>
<td>&lt; 6,000 ft</td>
<td>Cottonwood(chalk and tan)-vegetation communities along rivers and streams.</td>
<td>Migratory sparrow-obligate species that occupies breeding habitat from late April to September. Distribution within its range is restricted to riparian corridors. Critical habitat was located on October 19, 2005 (20 CCR 5909). In Arizona there are critical habitat segments in Apache, Cochise, Gila, Graham, Greenlee, Maricopa, Mohave, Pima, Pinal, and Yavapai counties.</td>
</tr>
<tr>
<td>auni cactus</td>
<td><em>Enneapogon arizonensis</em></td>
<td>Candidate</td>
<td>Less than 12 inches tall. Spine covering some on upperparts, each with a groove in the upper surface. 2-4 median spines and 12 radial spines. Radial spines are dirty white with tan or yellow tip. Flowers pink to purple.</td>
<td>Pima, Pinal</td>
<td>1,200-2,000 ft</td>
<td>Well-drained cliffs and gravel ridge in Sonoran desert.</td>
<td>Immature plants distinctly different from mature plants. Immature plants are deciduous or spherical and have no central spines until they reach 1.5 inches.</td>
</tr>
<tr>
<td>northern Mexican</td>
<td><em>Thamnophis aqua</em></td>
<td>Candidate</td>
<td>Background color ranges from olive-brown, to olive-gray. Body has three yellow or light-colored stripes running down the length of the body, darker towards tail. Specie distributes from other native genera plants by the lateral stripes reaching the 3rd and 4th scale row. Paired back scales extend along dorsomedial fss.</td>
<td>Apache, Cochise, Gila, Graham, Navajo, Pima, Pinal, Yavapai</td>
<td>150-650 ft</td>
<td>Coconino, stock tanks, riparian woodlands and forests, streamside gallery forests.</td>
<td>Core population areas in the U.S. include major urban areas, drainages, and state and federal parks. Strongly associated with the presence of a native prey base including rodent populations and native fish.</td>
</tr>
<tr>
<td>sonora mud turtle</td>
<td><em>Kinosternon sonoriense</em></td>
<td>Candidate</td>
<td>Aquatic; dark, medium-sized; snout up to 7 inches long; neck, black, and tibial cartilage is olive brown to dark brown; plastron hinged; long claws on chin, webbed feet.</td>
<td>Pima</td>
<td>1,100 ft</td>
<td>Ponds and streams.</td>
<td>Found only in Cucalota to Springs in Organ Pipe Cactus National Monument, Pima County. Species also occurs in Rio Sonora, Sonora, Mexico.</td>
</tr>
</tbody>
</table>

Wednesday, March 04, 2009

Pima County
<table>
<thead>
<tr>
<th>COMMON NAME</th>
<th>SCIENTIFIC NAME</th>
<th>STATUS</th>
<th>DESCRIPTION</th>
<th>COUNTY</th>
<th>ELEVATION</th>
<th>HABITAT</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yellow-billed cuckoo</td>
<td>Geococcyx (americanus)</td>
<td>Candidate</td>
<td>Medium-sized bird with slender, long-tailed profile; slightly down-curved bill that is blue-black with yellow on the lower mandible; plumage is greyish brown above and white below, with rufous primary flight feathers.</td>
<td>Apache, Cochise, Coconino, Gila, Graham, Gila, La Paz, Maricopa, Mohave, Navajo, Pima, Pinal, Santa Cruz, Yavapai, Yuma</td>
<td>&lt; 6,000 ft</td>
<td>Large blocks of riparian woodlands (cottonwood, willow, or tamarisk galleries).</td>
<td>Neotropical migrant that winters primarily in South America and breeds primarily in the U.S. (but also in southern Canada and northern Mexico). As a migrant it is mainly detected as occurring outside of riparian areas. Cuckoos are broad nesting specialists, mostly below 5,000 feet in central, western, and southeastern Arizona. Cuckoos for cuckoos are primarily focused upon alterations to its nesting and foraging habitat. Nesting cuckoos are associated with moist, dense, wooded, streamside riparian habitats, with varying combinations of Fremont cottonwood, willow, oak, ash, Arizona sycamore, mesquite, and tamarisk. Some cuckoos have also been detected nesting in hot, mesquite, mesquite, tamarisk, and some arid neighborhood shade trees.</td>
</tr>
<tr>
<td>Goodings oxeye</td>
<td>Allion goodingsii</td>
<td>Conservation Agreement</td>
<td>Herbaceous perennial plant; broad, flat, yellow tints, blooms flowering stalks; 1-2 inches tall, slender, and narrowly winged toward apex; will be smaller in flowering stalks; seeds are short and thick.</td>
<td>Apache, Coconino, Pima</td>
<td>7,500-11,200 ft</td>
<td>Shafer sites on north-facing drainages, on slopes, or in riparian canyons, with mixed conifer and sparse forest.</td>
<td>Known from the U.S., Santa Catalina and Chiricahua Mountains. Also found in New Mexico on the Lincoln and Gila National Forests. A Conservation Agreement between the Service and the Forest Service signed in February 1996.</td>
</tr>
<tr>
<td>San Xavier latus:al</td>
<td>Cicereta (oretata)</td>
<td>Conservation Agreement</td>
<td>Land small, less than one inch in diameter; about 1.7 inches long with 4.5 whirls; will be a bright green; ovate to oval-shaped and has a rootlet-like tail.</td>
<td>Pima</td>
<td>3,600-9,820 ft</td>
<td>Shafer sites on north-facing drainages, on slopes, or in riparian canyons, with mixed conifer and sparse forest.</td>
<td>Restricted to 58 by 100 foot area of land, privately owned in southeastern Arizona. A Conservation Agreement was finalized in 1995 and renewed in May 2008.</td>
</tr>
</tbody>
</table>

**Wednesday, March 04, 2009**

**Pima County**

Page 5 of 6
<table>
<thead>
<tr>
<th>COMMON NAME</th>
<th>SCIENTIFIC NAME</th>
<th>STATUS</th>
<th>DESCRIPTION</th>
<th>COUNTY</th>
<th>ELEVATION</th>
<th>HABITAT</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>American peregrine</td>
<td>Falco peregrinus</td>
<td>Delisted</td>
<td>A crow-sized falcon with slate blue-gray on the back and wings, and white on the underside; a black head with vertical &quot;mantle's mask&quot; pattern over the eyes; long pointed wings; and a long tail. They are known for their diving speeds of 200 mph.</td>
<td>Apache, Cochise, Gila, Graham, Maricopa, Mohave, Navajo, Pima, Pinal, Santa Cruz, Yuma</td>
<td>3,000 to 4,000 ft</td>
<td>Areas with rocky, steep cliffs, primarily resistant areas with dry clay soils, and sometimes on man-made structures such as office buildings or bridge supports.</td>
<td>Species recovered with over 1,600 breeding pairs in the US and Canada.</td>
</tr>
<tr>
<td>Cactus ferrugineus</td>
<td>Geococcyx fulvus</td>
<td>Endangered</td>
<td>Small nocturnal bird with a sandy-colored body, and reddish brown tail. Nests average 2 to 4 eggs, and the incubation period is approximately 6.5 weeks. Incubation is initiated by the female.</td>
<td>Pima, Pinal</td>
<td>&lt; 4,000 ft</td>
<td>Areas of dense desert brush with isolated scrub vegetation. Primarily found in Sonoran desert scrub and occasionally in prairie grasslands and woodlands within semi-arid grassland communities.</td>
<td>Not recognized as a protected taxonomic unit under the Act, but protected from direct take of individuals and nest sites under the Migratory Bird Treaty Act. A petition for listing under the Act is currently being evaluated. Due to low population numbers, captive breeding research was initiated in 2006 with some success.</td>
</tr>
</tbody>
</table>

Exhibit A-10
Wetland Map, Sahuarita, Pima County, AZ

Map center: 32° 0' 12" N, 110° 57' 34" W

Scale: 1:27,272

This map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.

Exhibit A- 11
Flooding Frequency Class—Pima County, Arizona, Eastern Part; and Tucson-Avra Valley Area, Arizona

MAP LEGEND

Area of interest (AOI)

Soils

Soil Map Units

Soil Ratings

None

Very Rare

Rare

Occasional

Frequent

Very Frequent

Political Features

Cities

Water Features

Oceans

Streams and Canals

Transportation

Rails

Interstate Highways

US Routes

Major Roads

MAP INFORMATION

Map Scale: 1:24,200 if printed on A size (8.5” x 11”) sheet.

The soil surveys that comprise your AOI were mapped at scales ranging from 1:20,000 to 1:24,000.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service


Coordinate System: UTM Zone 12N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below:

Soil Survey Area: Pima County, Arizona, Eastern Part

Survey Area Data: Version 6, Sep 8, 2008

Soil Survey Area: Tucson-Avra Valley Area, Arizona

Survey Area Data: Version 6, Sep 5, 2008

Your area of interest (AOI) includes more than one soil survey area.

These survey areas may have been mapped at different scales, with a different land use in mind, at different times, or at different levels of detail. This may result in map unit symbols, soil properties, and interpretations that do not completely agree across soil survey area boundaries.

Date(s) aerial images were photographed: 6/25/2007

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.
## Flooding Frequency Class

### Flooding Frequency Class—Summary by Map Unit—Pima County, Arizona, Eastern Part

<table>
<thead>
<tr>
<th>Map unit symbol</th>
<th>Map unit name</th>
<th>Rating</th>
<th>Acres in AOI</th>
<th>Percent of AOI</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Anthony fine sandy loam, 0 to 3 percent slopes</td>
<td>None</td>
<td>4.0</td>
<td>0.2%</td>
</tr>
<tr>
<td>36</td>
<td>Hayhook-Sahuarita complex, 1 to 5 percent slopes</td>
<td>None</td>
<td>43.2</td>
<td>1.9%</td>
</tr>
<tr>
<td>82</td>
<td>Tubac sandy loam, 0 to 2 percent slopes</td>
<td>None</td>
<td>2.0</td>
<td>0.1%</td>
</tr>
</tbody>
</table>

Subtotals for Soil Survey Area: 49.2 acres (2.1%)

Totals for Area of Interest: 2,312.7 acres (100.0%)

### Flooding Frequency Class—Summary by Map Unit—Tucson-Avra Valley Area, Arizona

<table>
<thead>
<tr>
<th>Map unit symbol</th>
<th>Map unit name</th>
<th>Rating</th>
<th>Acres in AOI</th>
<th>Percent of AOI</th>
</tr>
</thead>
<tbody>
<tr>
<td>A0B</td>
<td>Anthony gravelly sandy loam, 1 to 3 percent slopes Rare</td>
<td>300.8</td>
<td>13.0%</td>
<td></td>
</tr>
<tr>
<td>ApB</td>
<td>Anthony soils, 0 to 3 percent slopes Occasional</td>
<td>645</td>
<td>28.0%</td>
<td></td>
</tr>
<tr>
<td>AsB</td>
<td>Anthony and Sonora soils, 0 to 5 percent slopes Rare</td>
<td>241.1</td>
<td>10.4%</td>
<td></td>
</tr>
<tr>
<td>Br</td>
<td>Brazo loamy sand Rare</td>
<td>85</td>
<td>0.4%</td>
<td></td>
</tr>
<tr>
<td>CIC</td>
<td>Cave-Rillito complex, 0 to 8 percent slopes None</td>
<td>0.4</td>
<td>0.0%</td>
<td></td>
</tr>
<tr>
<td>Cm</td>
<td>Comoro sandy loam Rare</td>
<td>223.7</td>
<td>9.7%</td>
<td></td>
</tr>
<tr>
<td>Co</td>
<td>Comoro loam Rare</td>
<td>40.0</td>
<td>1.7%</td>
<td></td>
</tr>
<tr>
<td>GbB</td>
<td>Gila loam, 1 to 3 percent slopes Rare</td>
<td>2.4</td>
<td>0.1%</td>
<td></td>
</tr>
<tr>
<td>Gh</td>
<td>Grabe loam Rare</td>
<td>487.3</td>
<td>21.1%</td>
<td></td>
</tr>
<tr>
<td>Gm</td>
<td>Grabe silt loam Rare</td>
<td>429.8</td>
<td>18.6%</td>
<td></td>
</tr>
<tr>
<td>Gu</td>
<td>Gullied land None</td>
<td>28.1</td>
<td>1.2%</td>
<td></td>
</tr>
<tr>
<td>LmB</td>
<td>Laveen complex, 0 to 5 percent slopes None</td>
<td>15.6</td>
<td>0.7%</td>
<td></td>
</tr>
<tr>
<td>Pm</td>
<td>Pima silt loam Rare</td>
<td>246.7</td>
<td>10.7%</td>
<td></td>
</tr>
<tr>
<td>Ru</td>
<td>Riverwash Frequent</td>
<td>28.7</td>
<td>1.2%</td>
<td></td>
</tr>
<tr>
<td>Sn</td>
<td>Sonora loam None</td>
<td>29.3</td>
<td>1.3%</td>
<td></td>
</tr>
<tr>
<td>StB</td>
<td>Sonora-Tubac complex, 1 to 3 percent slopes None</td>
<td>97.7</td>
<td>4.2%</td>
<td></td>
</tr>
<tr>
<td>VsA</td>
<td>Vinton loamy sand, 0 to 1 percent slopes Rare</td>
<td>19.0</td>
<td>0.8%</td>
<td></td>
</tr>
</tbody>
</table>

Subtotals for Soil Survey Area: 2,263.5 acres (97.9%)

Totals for Area of Interest: 2,312.7 acres (100.0%)
Description

Flooding is the temporary inundation of an area caused by overflowing streams, by runoff from adjacent slopes, or by tides. Water standing for short periods after rainfall or snowmelt is not considered flooding, and water standing in swamps and marshes is considered ponding rather than flooding.

Frequency is expressed as none, very rare, rare, occasional, frequent, and very frequent.

"None" means that flooding is not probable. The chance of flooding is nearly 0 percent in any year. Flooding occurs less than once in 500 years.

"Very rare" means that flooding is very unlikely but possible under extremely unusual weather conditions. The chance of flooding is less than 1 percent in any year.

"Rare" means that flooding is unlikely but possible under unusual weather conditions. The chance of flooding is 1 to 5 percent in any year.

"Occasional" means that flooding occurs infrequently under normal weather conditions. The chance of flooding is 5 to 50 percent in any year.

"Frequent" means that flooding is likely to occur often under normal weather conditions. The chance of flooding is more than 50 percent in any year but less than 50 percent in all months in any year.

"Very frequent" means that flooding is likely to occur very often under normal weather conditions. The chance of flooding is more than 50 percent in all months of any year.

Rating Options

Aggregation Method: Dominant Condition
Component Percent Cutoff: None Specified
Tie-break Rule: More Frequent
Beginning Month: January
Ending Month: December
Mr. James Garrison
State Historic Preservation Officer
Arizona State Parks
1300 West Washington
Phoenix, Arizona 85001

Dear Mr. Garrison:

As Agency Official for purposes of Section 106 of the National Historic Preservation Act of 1966, as amended (NHPA), I wish to consult with you pursuant to 36 CFR 800.3(g) about the proposed undertaking, approval of a lease for a Federal Holding Facility (Project No. 2008-294), on the San Xavier District of the Papago Indian Reservation.

In consultation with the Tohono O'odham Nation (TON) as identified at 36 CFR 800.3(d), I have made a reasonable and good faith effort to carry out appropriate identification efforts as prescribed at 36 CFR 800.4, and find that no historic properties are present within the area of potential effect (APE). Documentation of this finding is provided in the enclosed memorandum from Mr. Peter Steere dated October 20, 2008.

I conclude that a determination of “No Historic Properties Affected” pursuant to 36 CFR 800.4(d)(1) is appropriate for the undertaking, as no historic properties were found within the APE.

This determination will be included as part of the National Environmental Policy Act (NEPA) documentation associated with the proposed undertaking, which is anticipated to be an Environmental Assessment. As part of the NEPA review process, we will employ corresponding Bureau and tribal notification procedures for addressing our responsibilities as defined at 36 CFR 800.2(d).

As required at 36 CFR 800.5(c), I am submitting documentation of this finding and await your response within thirty days of receipt. I trust you will agree with this finding and seek your concurrence that the Section 106 consultation process has been successfully completed for the subject undertaking.
If there are any questions, please contact Mr. Garry J. Cantley, Regional Archeologist, at (602) 379-6750.

Sincerely,

[Signature]
Regional Director

Enclosure

cc: Superintendent, Papago Agency
    Attn: Environmental Coordinator
    Chairman, Tohono O'odham Tribal Council
    Program Manager, Cultural Affairs Dept., TON
    Real Estate Services, WRO
Memorandum

To: Superintendent, Papago Agency
   Attention: Environmental Coordinator

From: Acting Deputy Regional Director - Trust Services

Subject: Section 106 of NHPA, Federal Holding Facility, Papago Indian Reservation

You are hereby advised that the consultation process with the Arizona State Historic Preservation Office (SHPO) has been completed for the proposed undertaking on the Papago Indian Reservation: approval of a lease for a Federal Holding Facility (Project No. 2008-294). The SHPO has concurred with our determinations of “No Historic Properties Affected” by receipt of the attached letter dated November 26, 2008.

We have determined that the memorandum from Mr. Peter Steere is accurate for purposes of compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (NHPA).

We find that no historic properties are within the area of potential effect (APE) for the project. Our responsibilities under the NHPA are hereby complete, with the proviso that should unrecorded cultural material be encountered in the course of construction, work shall cease at that location and the Program Manager, Cultural Affairs Department, and the BIA Regional Archeologist be notified immediately.

This determination should be included as part of the National Environmental Policy Act (NEPA) documentation associated with the proposed actions to demonstrate compliance with Federal responsibilities under Section 106 of NHPA.

If you have any questions, please contact Mr. Garry J. Caneley, Regional Archeologist, at (602) 379-6750.

Attachment

cc: Real Estate Services, WRO
   Chairman, Tohono O’odham Tribal Council
   Program Manager, Cultural Affairs Dept., TON (w/attach)

Exhibit A- 20