

NEW APPLICATION ORIGINAL

August 1, 2002

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**Application for a
Certificate of Environmental Compatibility**

**AZ CORP COMMISSION
DOCUMENT CONTROL**

**Gila Bend Power Partners, L.L.C.
Hassayampa to Jojoba 500kV Transmission Line Project**

Prepared for:

**Arizona Power Plant and
Transmission Line Siting Committee**

Submitted by:

Gila Bend Power Partners, L.L.C.

Date: _____

Case No. _____

August 1, 2002

BEFORE THE
ARIZONA POWER PLANT AND TRANSMISSION LINE SITING COMMITTEE

In the matter of the Application of Gila Bend Power Partners, L.L.C. and its assignees in conformance with the requirements of Arizona Revised Statutes Sections 40-360.03 and 40-360.06 for a certificate of environmental compatibility authorizing construction of one 500kV transmission line and associated switchyard components in Maricopa County, Arizona originating at the Hassayampa Switchyard near the Palo Verde Nuclear Generating Station west of Phoenix, Arizona (Section 15, Township 1 South, Range 6 West, G&SRB&M) and terminating at the Jojoba Switchyard, Section 25, Township 2 South, Range 4 West, a distance of approximately 20 miles.

Case No. _____

APPLICATION FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY

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LIST OF ACRONYMS

| | |
|------------------|--|
| Applicant | Gila Bend Power Partners, L.L.C. |
| APS | Arizona Public Service Company |
| A.R.S. | Arizona Revised Statutes |
| ASLD | Arizona State Land Department |
| | |
| BLM | Bureau of Land Management |
| | |
| CATS | Central Arizona Transmission Study |
| CEC | Certificate of Environmental Compatibility |
| | |
| dB | decibels |
| dBA | “A” weighted decibels |
| | |
| EA | environmental assessment |
| EHV | extra high voltage |
| EMF | electric and magnetic field |
| EPG | Environmental Planning Group, Inc. |
| | |
| G&SRB&M | Gila and Salt River Base and Meridian |
| GBPP | Gila Bend Power Partners, L.L.C. |
| | |
| kV | kilovolt |
| KOP | Key Observation Point |
| | |
| MHz | megahertz |
| mm | millimeter |
| | |
| NEPA | National Environmental Policy Act |
| NRHP | Natural Register of Historic Places |
| | |
| PNM | Public Service Company of New Mexico |
| POD | plan of development |
| Project | Hassayampa to Jojoba 500kV Transmission Project |
| PVNGS | Palo Verde Nuclear Generating Station |
| | |
| RMP | Resource Management Plan |
| | |
| SHPO | State Historic Preservation Office |
| Siting Committee | Arizona Power Plant and Transmission Line Siting Committee |
| SQRU | Scenic Quality Rating Units |
| SRP | Salt River Project |
| | |
| USFWS | U.S. Fish and Wildlife Service |

INTRODUCTION

INTRODUCTION

Gila Bend Power Partners, L.L.C. ("GBPP" or "Applicant") requests a certificate of environmental compatibility ("CEC") from the Arizona Power Plant and Transmission Line Siting Committee ("Siting Committee") for authority to construct one 500 kilovolt ("kV") transmission line in southwestern Maricopa County, Arizona ("Project"). The Project forms the final segment of GBPP's transmission paths for delivery of all 845 megawatts of power from its planned generation facility, in Gila Bend, to the Hassayampa Switchyard.

The proposed 500kV transmission line would originate at the Hassayampa Switchyard, located approximately 1 mile south of the Palo Verde Nuclear Generation Station ("PVNGS"), and end at the planned Jojoba Switchyard (currently under construction) as shown on Figure 1. The proposed approximate 20-mile 500kV transmission line would parallel the existing Palo Verde-Kyrene 500kV line to the Jojoba Switchyard. The proposed route would be located on the west and south side of the existing line until just before it reaches the Gila River (and nearby Enterprise Canal). Just west of the river, the proposed line would cross to the north side of the existing line and continue into the Jojoba Switchyard. In addition, GBPP would add the required components to the Jojoba Switchyard facility for interconnection. Hassayampa Switchyard already has the appropriate components installed for interconnection.

At the point where the route moves to the north, the circuits of the Project and Palo Verde-Kyrene lines would shift. The Palo Verde-Kyrene line would shift to the new structures from the river to the Jojoba Switchyard, and the GBPP line would shift to the existing structures. This would result in the GBPP line ultimately being located west and south of the Palo Verde-Kyrene line for its entire distance. This switch allows for easier interconnections at each switchyard.

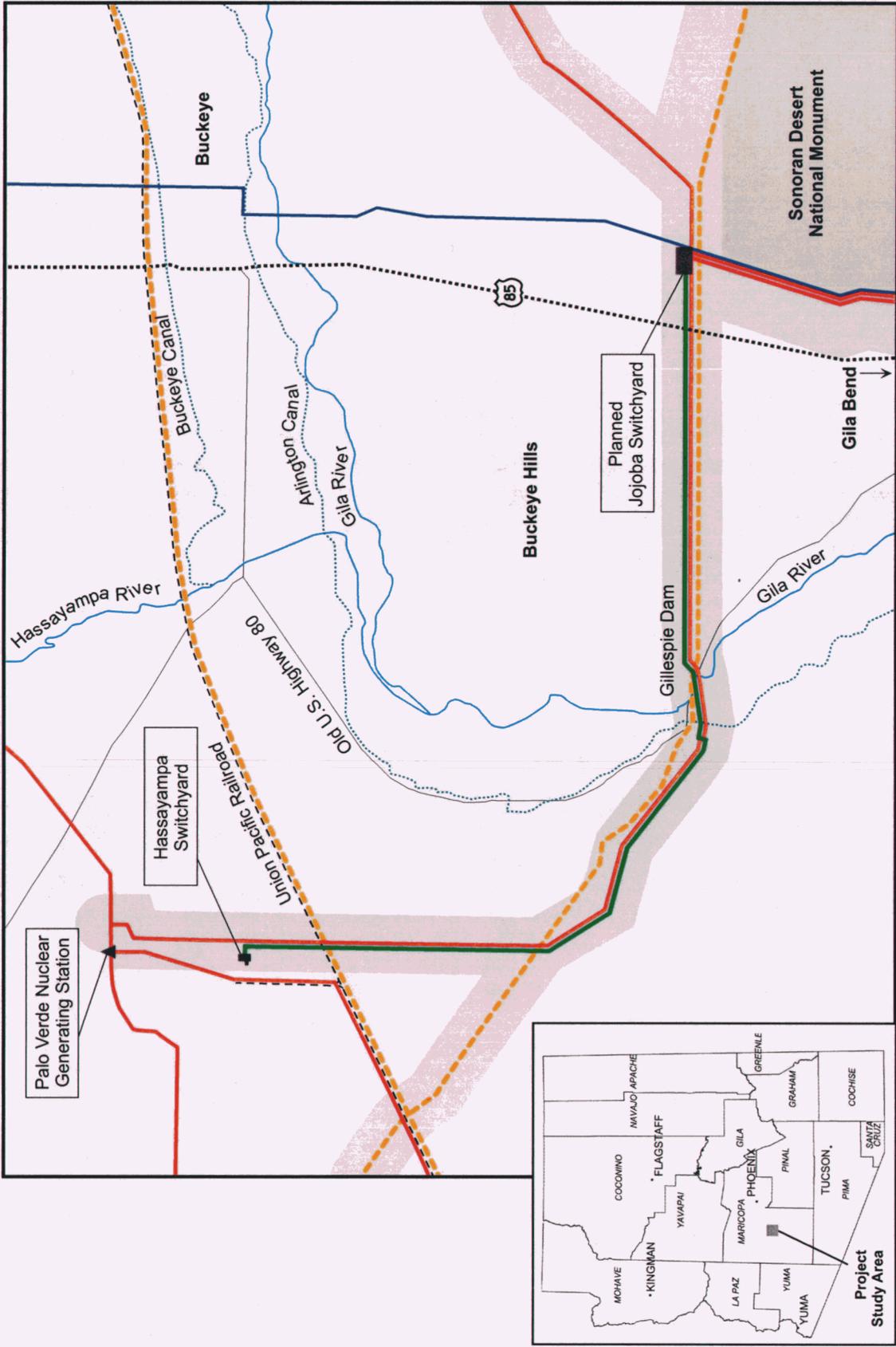
Project construction is scheduled to begin in the first quarter of 2004 and continue for approximately nine months until operational in the fourth quarter of 2004. GBPP is currently in discussions with appropriate entities regarding the construction, ownership, and operation of the Project.

Power from the planned GBPP Power Project (Case No. 106) will be transmitted via three segments with the initial segment starting from the power plant to the Watermelon Switchyard via a planned 500kV transmission line with a 230kV underbuild coordinated with Arizona Public Service ("APS") (Case No. 109). The second segment starts from the Watermelon Switchyard with power from the GBPP Power Project to be transmitted to the proposed Jojoba Switchyard via an open-access agreement with APS relating to the two new Gila River 500kV lines. Finally, with respect to the third segment, power from the planned GBPP Power Project would be transmitted to the Hassayampa Switchyard on the proposed Project within the Bureau of Land Management ("BLM") designated utility corridor between the Hassayampa and Jojoba switchyards.

The proposed Project will be consistent with the current Central Arizona Transmission Study ("CATS") as the current study recommends two additional 500kV lines in this corridor to meet future transmission system capacity requirements.

The Project is environmentally compatible for the following reasons:

- The proposed route is both within (the route from the Hassayampa Switchyard to the Gila River) and adjacent to an existing utility right-of-way (Palo Verde-Kyrene line) and within a BLM designated utility corridor.
- The Project would utilize existing access roads to the extent possible to minimize land disturbance during construction.
- No conflicts with any planned recreational uses are anticipated.
- No long-term adverse effects to special status species, unique habitats, or archaeological and historic sites are anticipated.
- The Project will use non-specular conductors, match tower spans, and use other mitigation measures as identified in the application to reduce visual impacts.
- No adverse noise effects or interference with communications signals are anticipated.
- No residences are within the right-of-way or will be crossed by the proposed Project.



PROJECT LOCATION

Proposed Hassayampa to Jojoba 500kV Transmission Line Project

Gila Bend Power Partners, LLC

Legend:

- Proposed 500kV Transmission Line
- Existing 500kV Transmission Line
- Existing 230kV Transmission Line
- - - Canal
- River
- State Route
- Gas Pipeline
- Railroad
- Highway
- National Monument
- BLM Designated Utility Corridor (1 mile wide)

*schematic drawing - not to scale

August 1, 2002

**APPLICATION FOR A CERTIFICATE OF
ENVIRONMENTAL COMPATIBILITY**

APPLICATION FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY

(Pursuant to A.R.S. Sections 40-360.03 and 40-360.06)

1. Name and address of the Applicant ("the Applicant"):

Name: Gila Bend Power Partners, L.L.C.
Address: 5949 Sherry Lane, Suite 1900
Dallas, Texas 75225

2. Name, address and telephone number of a representative of the Applicant who has access to technical knowledge and background information concerning this application, and who will be available to answer questions or furnish additional information:

Name: Mr. Robert Walther, P.E., President
Industrial Power Technology
Address: 2227 Capricorn Way, Suite 101
Santa Rosa, California 95407
Telephone: 707-528-8900
Fax: 707-528-8901
E-mail: rcwalther@ipower.com

3. Dates on which the Applicant filed a Ten Year Plan in compliance with Arizona Revised Statutes (A.R.S.) Section 40-360.02, which the facilities for which this application is made were described:

Under A.R.S. Section 40-360.02, GBPP filed a Ten Year Plan for the GBPP Power Project with the Arizona Corporation Commission on January 30, 2002. The Ten Year Plan was modified at the Second Biennial Transmission Assessment Workshop at the ACC on July 30 and 31, 2002.

4. Description of the proposed facilities:

4.1 Description of electric generating plant:

Not applicable.

4.2 Description of the proposed transmission line:

4.2.1 General description:

4.2.1.1 Nominal voltage for which the lines are designed:

500kV alternating current.

4.2.1.2 Description of proposed structures:

The transmission line would be designed for one three-phase circuit (three bundles of three conductors) and two static wires, one of which would be a fiber optic line. The structures proposed are steel lattice, as shown in Figure 2. The height of these structures would range from 100 to 155 feet, depending on the type of structure design and span length required. The span length between structures would range from 1,000 to 2,500 feet, subject to variation to achieve site-specific mitigation objectives. Final design characteristics would be determined in the detailed design phase of the Project.

4.2.1.3 Description of proposed switchyards:

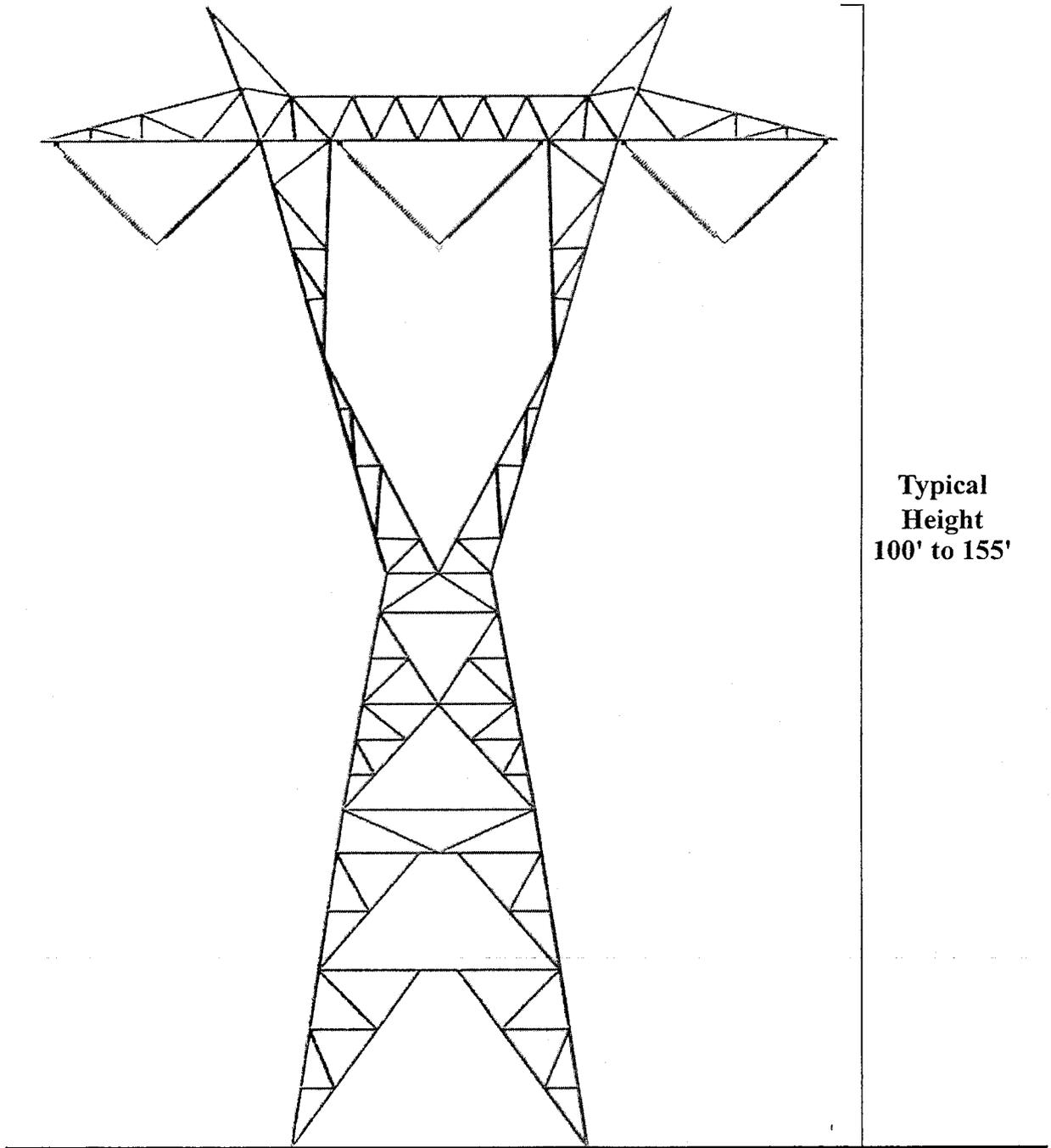
Components required for GBPP's interconnection at the Hassayampa Switchyard will be in place prior to GBPP's use. For the Jojoba Switchyard, the following components will be installed by GBPP:

- dead-end structure
- circuit breakers
- switches
- control equipment
- foundations (for all of the above)
- associated buswork

4.2.1.4 Purpose for constructing said transmission line:

The Project would interconnect the planned proposed GBPP Power Project to the Hassayampa Switchyard. The interconnection consists of three segments including the proposed Project described in this application. From the plant, in the western portion of Gila Bend, a 500kV line with a 230kV underbuild comprising the first segment will be constructed along Watermelon Road to

**Typical 500kV Single-Circuit
Steel Lattice Structure**



**Typical
Height
100' to 155'**

**Hassayampa to Jojoba
500kV Transmission Line Project**

Figure 2

the planned Watermelon Switchyard east of Gila Bend (Case No. 109, CEC issued in 2001). The next segment is from the Watermelon Switchyard where GBPP will utilize two APS Gila River 500kV transmission lines (Case No. 102, CEC issued in 2000), which terminate at the proposed Jojoba Switchyard (Case No. 102). The third segment is described in this application. The proposed Project is consistent with CATS Phase I and Phase II studies submitted to the ACC.

4.2.2 General location:

4.2.2.1 Description of the geographic points between which the transmission line will run:

The proposed 500kV transmission line would originate at the Hassayampa Switchyard located in Section 15, Township 1 South, Range 6 West near the PVNGS, and would terminate at the Jojoba Switchyard in Section 25, Township 2 South, Range 4 West.

4.2.2.2 Straight-line distance between such geographic points:

The straight-line distance of the proposed 500kV transmission line between the Hassayampa and Jojoba switchyards is approximately 15 miles.

4.2.2.3 Length of the transmission line for each alternate route:

The approximate length of the proposed route is 20 miles.

No alternative routes are being considered. The proposed route is within a BLM designated utility corridor and parallels an existing 500kV transmission line.

4.2.3 Detailed dimensions:

4.2.3.1 Nominal width of right-of-way requested:

GBPP is requesting approval of a total right-of-way width up to 200 feet within a 400-foot-wide corridor. The exact location of the alignment would be determined according to right-of-way considerations, site-specific design, and environmental requirements. From Hassayampa Switchyard to the Gila River, the right-of-way will be on the west and south side of the Palo Verde-Kyrene line. From the Gila River to the Jojoba Switchyard, the

right-of-way will be on the north side of the Palo Verde-Kyrene line.

4.2.3.2 Nominal length of span:

1,300 feet

4.2.3.3 Maximum height of supporting structures:

The maximum height of the proposed supporting structures would be approximately 155 feet above existing grade. The average height of the supporting structures would be approximately 135 feet above existing grade.

4.2.3.4 Minimum height of conductor above ground:

35 feet

4.2.4 Estimated costs of proposed transmission line:

The anticipated cost of constructing the transmission line is approximately \$12 million.

4.2.5 Description of the proposed route:

The proposed 500kV transmission line would originate at the Hassayampa Switchyard located in Section 15, Township 1 South, Range 6 West near the PVNGS west of Phoenix, Arizona. The 20-mile 500kV transmission line would follow the existing Palo Verde-Kyrene 500kV transmission line to a termination point at the Jojoba Switchyard (currently under construction) in Section 25, Township 2 South, Range 4 West. The proposed route would be located on the west and south side of the existing line until just before it reaches the Gila River. Just west of the river, the proposed line corridor would cross to the north side of the existing line and continue into the Jojoba Switchyard.

4.2.6 Land ownership:

The proposed route traverses approximately 7 miles of BLM lands, 7 miles of Arizona State Land Department ("ASLD") land, and 6 miles of private lands for an overall length of approximately 20 miles.

5. Jurisdictions:

5.1 Areas of jurisdiction (as defined in A.R.S. Section 40-360) affected by this route:

Areas of jurisdiction along the proposed route are Maricopa County and the Town of Buckeye.

5.2 Designation of proposed sites or routes, if any, which are contrary to the zoning ordinances or master plans of affected areas of jurisdiction:

The proposed route is not located contrary to zoning ordinances or general plans of any affected areas of jurisdiction. The proposed route is located near or in existing utility rights-of-way and within a BLM designated utility corridor.

6. Description of the environmental studies the Applicant has performed:

The environmental consulting firm of Environmental Planning Group, Inc. ("EPG") coordinated the preparation of environmental studies to support the application. EPG is currently preparing an environmental assessment ("EA") in compliance with the National Environmental Policy Act ("NEPA") under the direction of the BLM.

Environmental resource studies, including data collection and impact assessment, were conducted. Potential impacts to land use, visual, biological, and cultural resources were evaluated. Existing data from various agencies, aerial photographs, maps, and literature were reviewed and, where appropriate, field visits were conducted. A study corridor measuring 2 miles on each side of the proposed route's centerline was studied for potential visual resource and land use impacts. In addition, intensive cultural field surveys and cactus ferruginous pygmy owl surveys were conducted for the proposed route. No pygmy owls were identified in the study area.

Through an impact assessment process that compared the proposed Project and the existing environment, potential impacts were identified. In addition, mitigation measures were developed and recommended to reduce or eliminate impacts. Mitigation recommended by EPG included use of nonspecular conductors; matching existing structure types, heights, and spans; dulled structures; use of existing access; and cultural monitoring, if necessary, among other mitigation measures.

Results of these studies are contained in the various exhibits within this document and a copy of the EA will be filed with the Arizona Corporation Commission when completed, anticipated to be prior to the Siting Committee hearing.

7. Rationale for route preference:

The proposed route described in this application is within the range of impacts deemed “environmentally compatible” in past Siting Committee decisions. The proposed route is the preferred route based on environmental, system planning, mitigation, and cost considerations. Environmental advantages include the following:

- The proposed route will consolidate transmission lines near an existing utility right-of-way and within a BLM designated utility corridor.
- Visual impacts for this route are anticipated to be minimal.
- No long-term or adverse effects to special status species, unique habitats, or archaeological or historic sites are anticipated from the construction of the proposed route.
- No residences are crossed and no impacts to planned land use were identified because the proposed Project is within a BLM utility corridor.
- Audible noise and electric and magnetic fields are not anticipated to be of concern along the proposed route.

In addition, GBPP will implement the following environmental mitigation measures:

1. Before construction of this Project may commence, the Applicant shall file a construction mitigation revegetation and restoration plan with Arizona Corporation Commission Docket Control. Applicant shall, within one year of completion of the Project, rehabilitate to its original state any area disturbed by construction of the Project, except for any road that may be necessary to access the transmission lines for maintenance and repair.
2. Surveys for southwestern willow flycatchers would be conducted prior to construction, and mitigation measures would be implemented according to state and federal guidelines to minimize potential disturbances to special status species and habitat. If necessary, additional cactus ferruginous pygmy-owl surveys will be conducted in the appropriate season prior to construction.
3. The Applicant shall conduct all construction and maintenance activities in a manner that would minimize disturbance to vegetation, drainage channels, and intermittent and perennial streambanks. For example, the Applicant shall remove only the minimum amount of vegetation necessary for the construction of structures and facilities. In construction areas where recontouring is not required, vegetation shall be left in place to avoid excessive root damage and allow for resprouting. In addition, all existing roads

shall be left in a condition equal to or better than their condition prior to the construction of the transmission line.

4. The Applicant shall construct structures to conform to "Suggested Practices for Raptor Protection on Power Lines" (Raptor Research Foundation, Inc. 1981).
5. The Applicant shall retain a qualified biologist to monitor all ground clearing/disturbing construction activities in areas where sensitive species occur. The biological monitor will be responsible for ensuring proper actions are taken if a special status species is encountered.
6. The Applicant shall comply with Arizona's Native Plant Law and notify the Arizona Department of Agriculture no later than 60 days prior to the start of construction.
7. The Applicant shall continue to consult with the State Historic Preservation Office (SHPO) to reach a determination of any cultural resource impacts. The Applicant shall implement any impact avoidance and mitigation measures (e.g., monitoring during construction) for cultural resources developed in consultation with the BLM and the SHPO on land under BLM's jurisdiction and with ASLD on land under ASLD's jurisdiction.
8. The Applicant shall avoid or minimize impacts to properties considered eligible for inclusion in the State and National Register of Historic Places to the extent practicable. If human remains and/or funerary objects are encountered during the course of any ground disturbing activities relating to the development of the subject property, the Applicant shall cease work on the affected area of the Project and notify the Director of the Arizona State Museum in accordance with A.R.S. Section 47-1685 or the BLM in accordance with the Native American Graves and Protection and Repatriation Act, depending on land ownership.
9. In consultation with SHPO and any applicable land-managing agency, the Applicant shall consider and assess potential direct and indirect impacts to eligible properties related to new access roads or any existing access roads that require blading. An example of an indirect impact would be a road that leads directly to an archaeological site that in effect invites intentional or unintentional vandalism, such as looting or off-road vehicle use; in such cases, adding a locked gate or otherwise blocking the road would be an appropriate treatment.
10. The Applicant shall match structure spans with the existing Palo Verde-Kyrene line for the proposed Project unless site-specific conditions require a structure to be moved.
11. The Applicant shall use existing access roads along the Palo Verde-Kyrene line for construction and maintenance access and only build spur roads for access to new structures.

12. The Applicant shall restrict all construction vehicle movement outside of the right-of-way to predesignated access, contractor acquired access, or public roads.
13. The Applicant shall use dulled steel structures and non-specular and dulled conductors to reduce the contrast and visibility of the proposed Project.
14. The Applicant shall match existing structure type to reduce overall Project contrast.
15. The Applicant shall restore the ground surface in construction areas (e.g., marshalling yards, structure sites) where ground disturbance is significant or where recontouring is required. The method of restoration may include returning disturbed areas to their natural contour (to the extent practical), reseeding with native plants, installing cross drains for erosion control, placing water bars in the road, and filling ditches. Seed must be tested and certified to contain no noxious weeds in the mix. Seed viability must also be tested at a certified laboratory approved by the authorized officer.

Finally, the Applicant will also follow procedures set forth in the following compliance list:

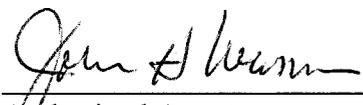
- A. The Applicant shall make every reasonable effort to identify and correct, on a case-specific basis, all complaints of interference with radio or television signals from operation of the line and related facilities. In addition to any transmission repairs, the relevant corrective actions may include adjusting or modifying receivers; adjusting, repairing, replacing or adding antennas, antenna signal amplifiers, filters, or lead-in cables; or other corrective actions.
- B. The Applicant shall maintain written records for a period of five (5) years of all complaints of radio or television interference attributable to operation of the Project, together with the corrective action taken in response to each complaint. Complaints not leading to a specific action or for which there was no resolution shall be noted and explained. The record shall be signed by the Project owner and also the complainant, if possible, to indicate concurrence with the corrective action or agreement with the justification for a lack of action.
- C. The Applicant shall advise interested parties how they may express concerns or submit complaints to GBPP when they believe the transmission line or switchyard facilities herein authorized are creating noise in excess of applicable Housing and Urban Development standards or causing interference with communications signals in excess of applicable Federal Communication Commission standards. Such complaints may, at the election of the complainant, be processed by GBPP.
- D. Within 45 days of securing easement of right-of-way for the Project, the Applicant shall erect and maintain signs providing public notice that the property is the site of a future transmission line. Such signage shall be no smaller than a normal roadway sign. The Applicant shall place signs in prominent locations at reasonable intervals such that the

public is notified along the full length of the transmission line. Copies of the Certificate shall be provided by the Applicant to city and county planning agencies. The signs shall advise:

- a. That the site has been approved for the construction of a 500kV transmission line
 - b. The expected date of completion of the Project facilities
 - c. A phone number for public information regarding the Project
- E. Prior to construction, all construction personnel shall be provided an environmental construction plan and instructed on the protection of cultural and ecological resources. To assist in this effort, the construction contract shall address (a) federal and state laws regarding antiquities and plants and wildlife including collection and removal; and (b) the importance of these resources and the purpose and necessity of protecting them.
- F. The Applicant shall cover construction holes left open at night. The covers shall be secured in place and shall be strong enough to prevent livestock or wildlife from falling through and into any hole.
- G. The Applicant shall affirmatively offer to work with the affected jurisdictions to join in long-range plans for the corridor.
- H. The Applicant shall survey any areas not previously surveyed (e.g., new spur roads) prior to construction.

August 1, 2002

GILA BEND POWER PARTNERS, L.L.C.

BY: 
Authorized Agent

Original and 25 copies of the foregoing hand delivered and filed with the Director of Utilities, Arizona Corporation Commission, this 1st day of August, 2002.

EXHIBIT A
LOCATION AND LAND USE MAPS
AND ROUTE PHOTOS

EXHIBIT A

LOCATION AND LAND USE MAPS AND ROUTE PHOTOS

As stated in Arizona Corporation Commission Rules of Practice and Procedure R14-3-219:

“Where commercially available, a topographic map, 1:250,000 scale, showing any proposed transmission line route of more than 50 miles in length and the adjacent area. For routes less than 50 miles in length, use a scale of 1:62,500. If application is made for alternative transmission line routes, all routes may be shown on the same map, if practicable, designated by the applicant’s order of preference.”

Exhibit A contains maps and photos of the proposed route. Exhibit A-1 illustrates the proposed route and various jurisdictions in the Project area. Exhibit A-2 shows, in general, who owns the lands within the Project area. Exhibit A-3 illustrates existing types of land uses, while Exhibit A-4 illustrates planned and future land uses anticipated for the Project area. Exhibit A-5 contains both an aerial map showing photo points followed by a series of photos taken at various points along the route from the Jojoba Switchyard to the Hassayampa Switchyard.

Provided below is a list of the exhibits and their titles:

- Exhibit A-1 – Proposed Route and Jurisdiction
- Exhibit A-2 – Land Ownership
- Exhibit A-3 – Existing Land Use
- Exhibit A-4 – Planned and Future Land Use
- Exhibit A-5 – Proposed Route Photos

August 1, 2002

**EXHIBIT A-1
PROPOSED ROUTE AND JURISDICTION**

OVERSIZED MAP

**-Gila Bend Power Partners, L.L.C.
Hassayampa to Jojoba 500kV
Transmission Line Project
Proposed Route and Jurisdiction
Exhibit A-1**

TO REVIEW SEE DOCKET SUPERVISOR

**DOCKET
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**EXHIBIT A-2
LAND OWNERSHIP**

OVERSIZED MAP

**-Gila Bend Power Partners, L.L.C.
Hassayampa to Jojoba 500kV
Transmission Line Project
Land Ownership
Exhibit A-2**

TO REVIEW SEE DOCKET SUPERVISOR

**DOCKET
L-00000V-02-0119-00000**

**EXHIBIT A-3
EXISTING LAND USE**

OVERSIZED MAP

**-Gila Bend Power Partners, L.L.C.
Hassayampa to Jojoba 500kV
Transmission Line Project
Existing Land Use
Exhibit A-3**

TO REVIEW SEE DOCKET SUPERVISOR

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August 1, 2002

**EXHIBIT A-4
PLANNED AND FUTURE LAND USE**

OVERSIZED MAP

**-Gila Bend Power Partners, L.L.C.
Hassayampa to Jojoba 500kV
Transmission Line Project
Planned Land Use
Exhibit A-4**

TO REVIEW SEE DOCKET SUPERVISOR

**DOCKET
L-00000V-02-0119-00000**

August 1, 2002

**EXHIBIT A-5
PROPOSED ROUTE PHOTOS**

OVERSIZED MAP

**-Gila Bend Power Partners, L.L.C.
Hassayampa to Jojoba 500kV
Transmission Line Project
Proposed Route Photos
Exhibit A-5**

TO REVIEW SEE DOCKET SUPERVISOR

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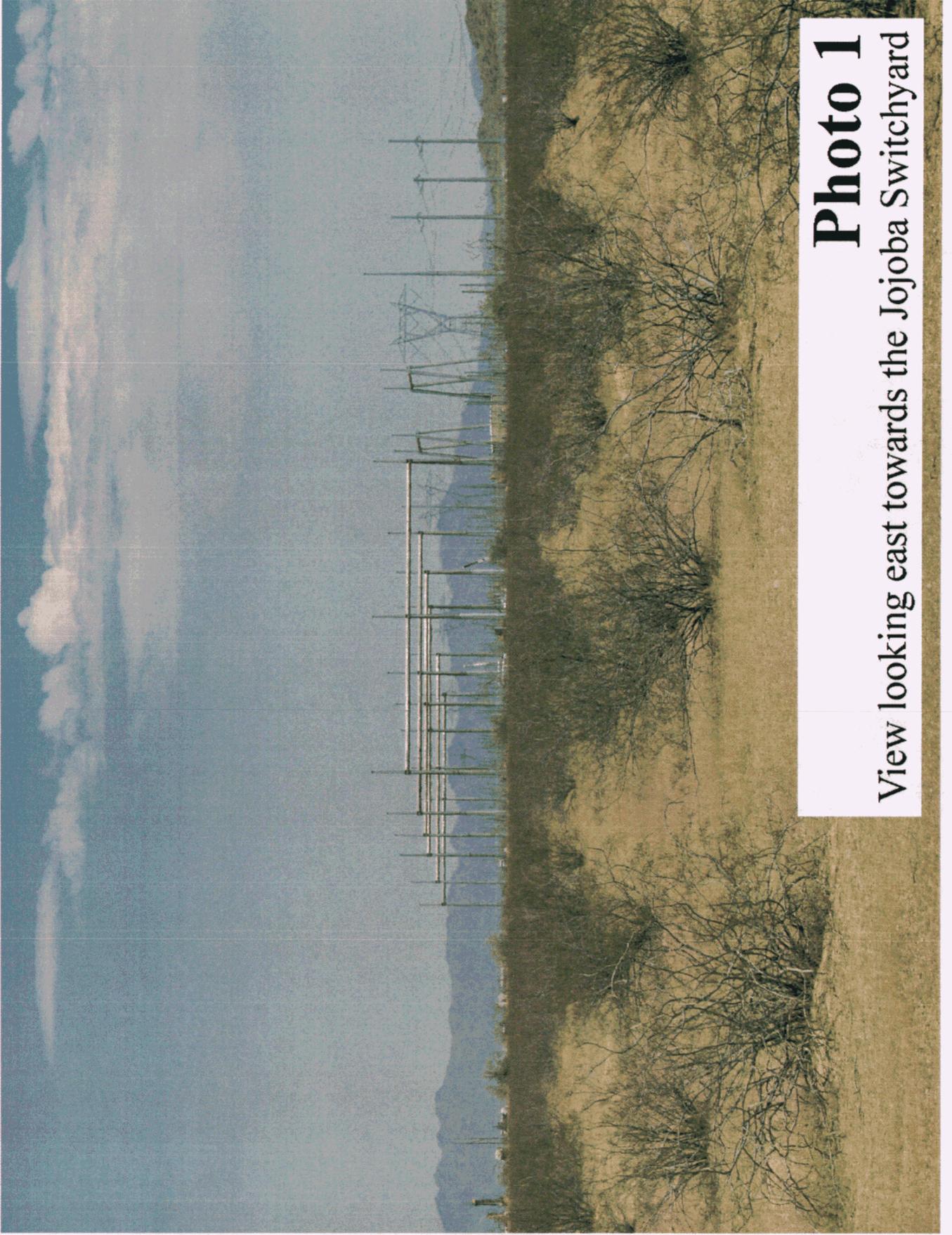


Photo 1

View looking east towards the Jojoba Switchyard

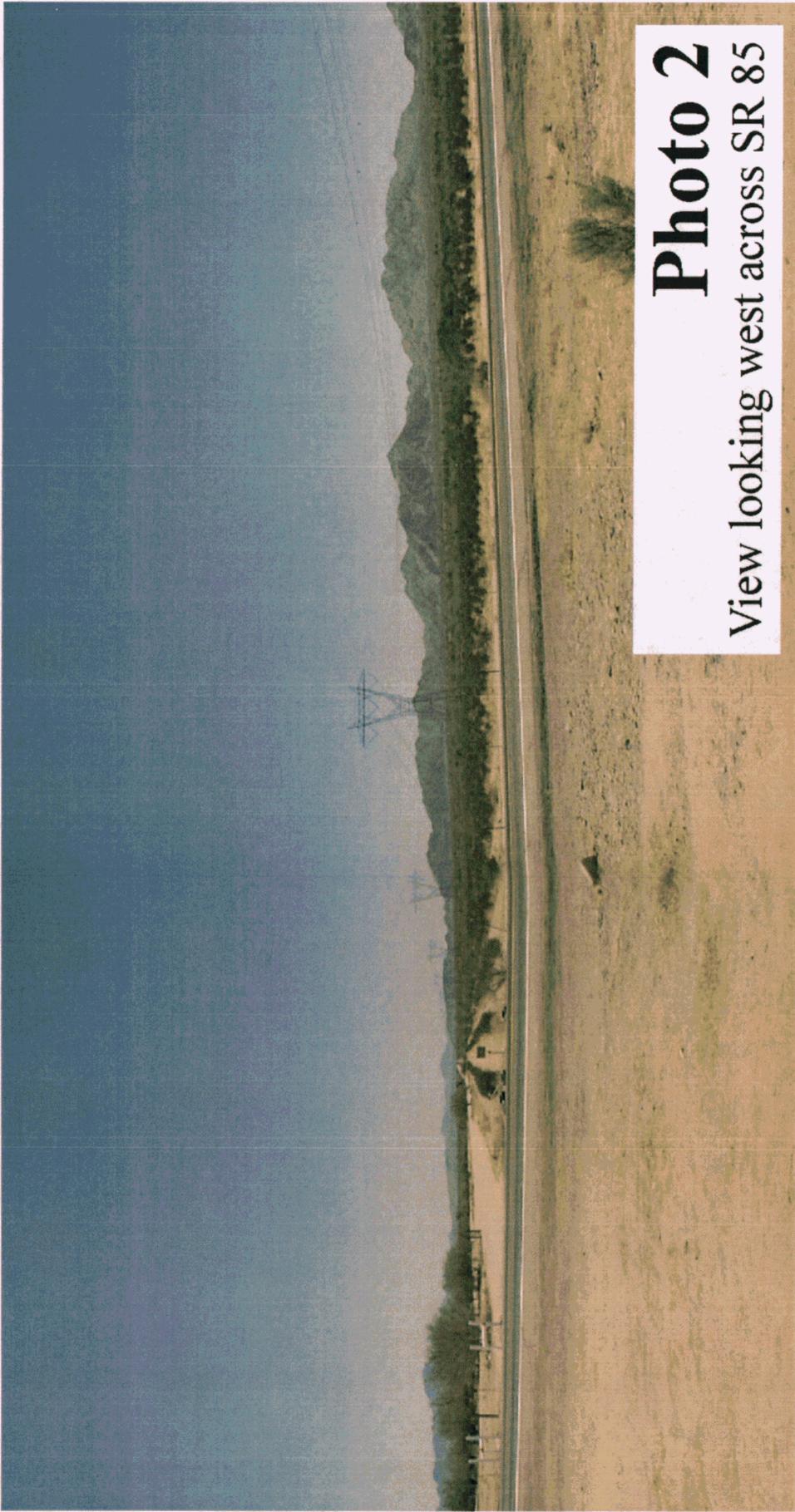


Photo 2

View looking west across SR 85

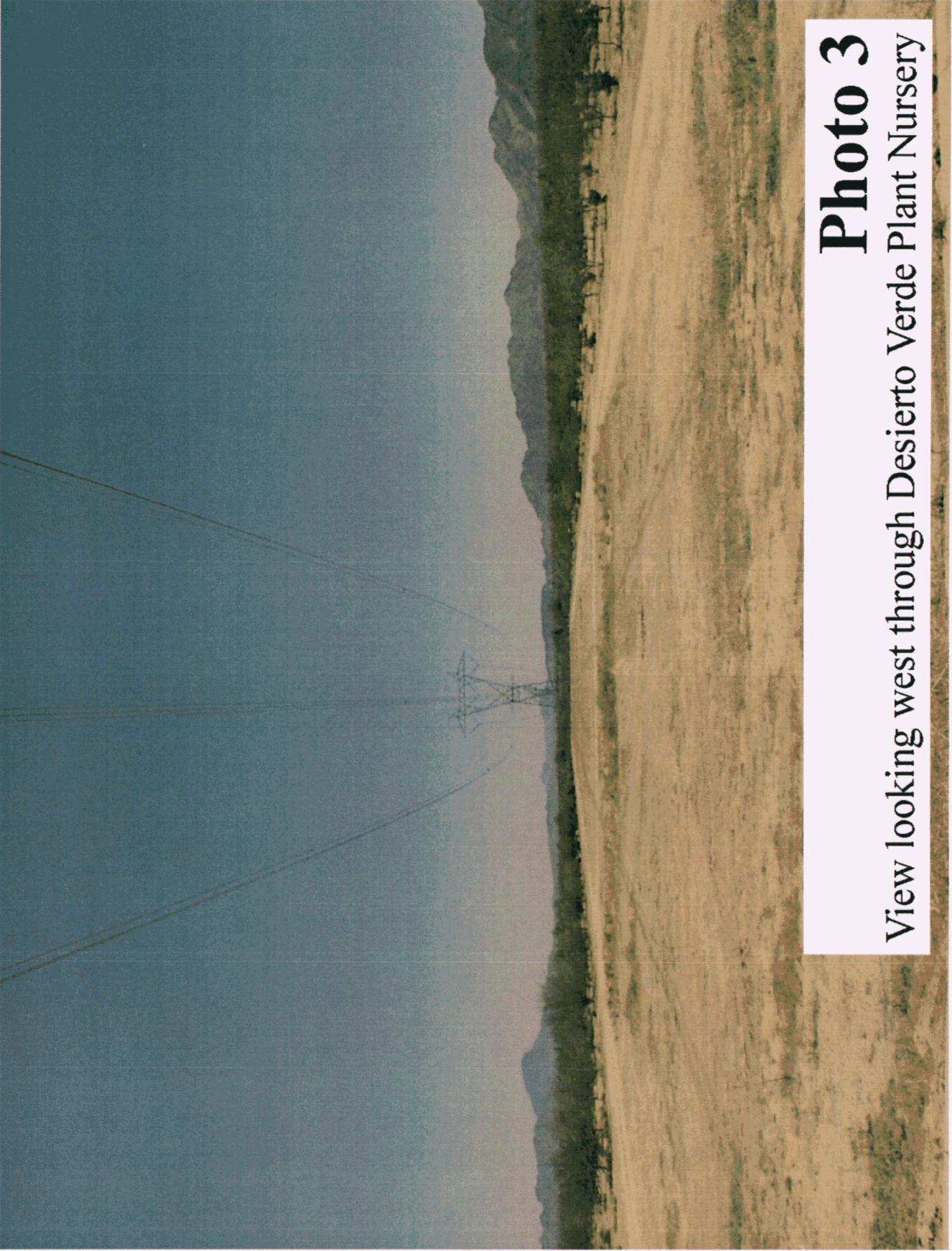


Photo 3

View looking west through Desierto Verde Plant Nursery

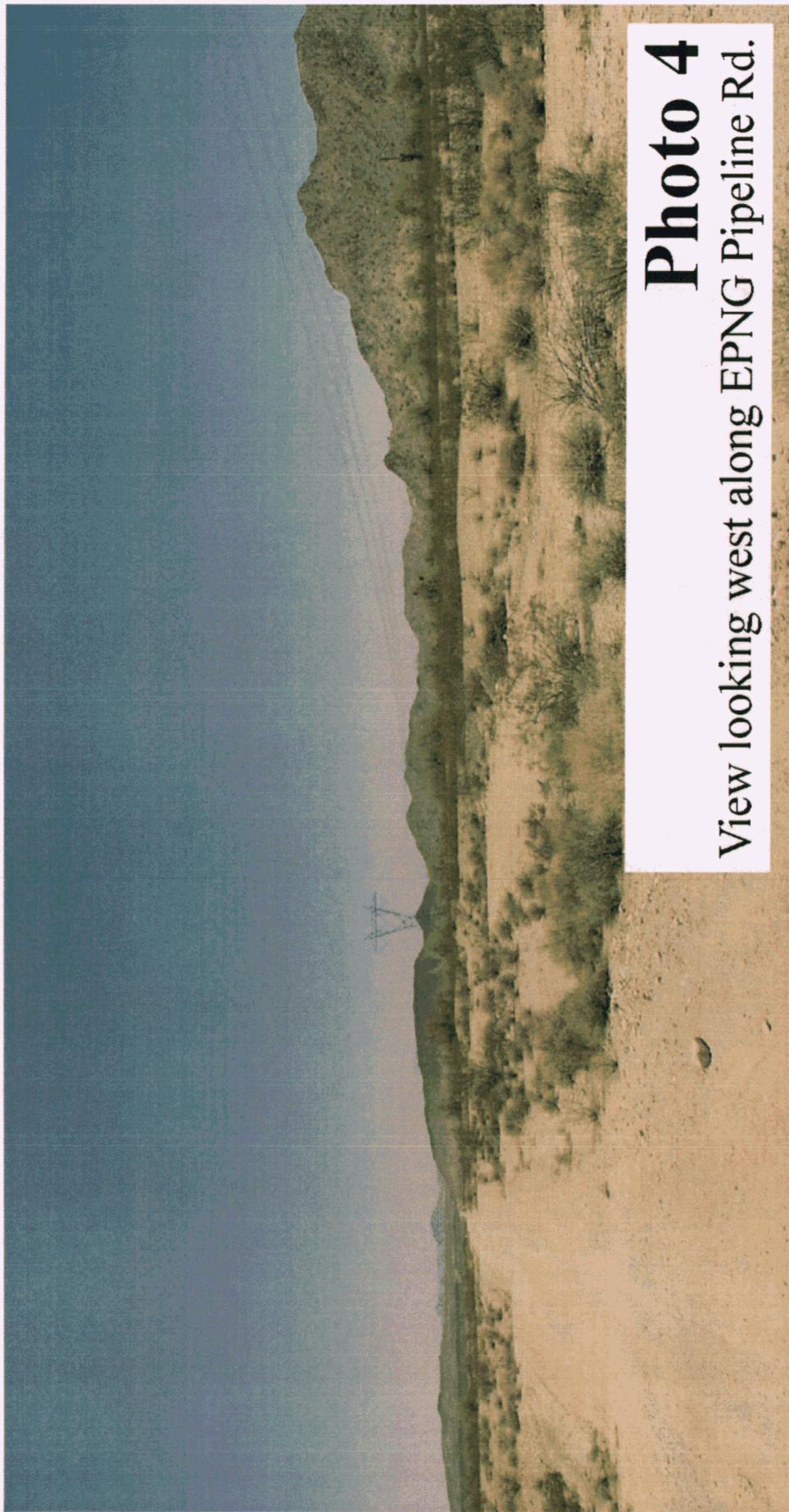


Photo 4

View looking west along EPNG Pipeline Rd.

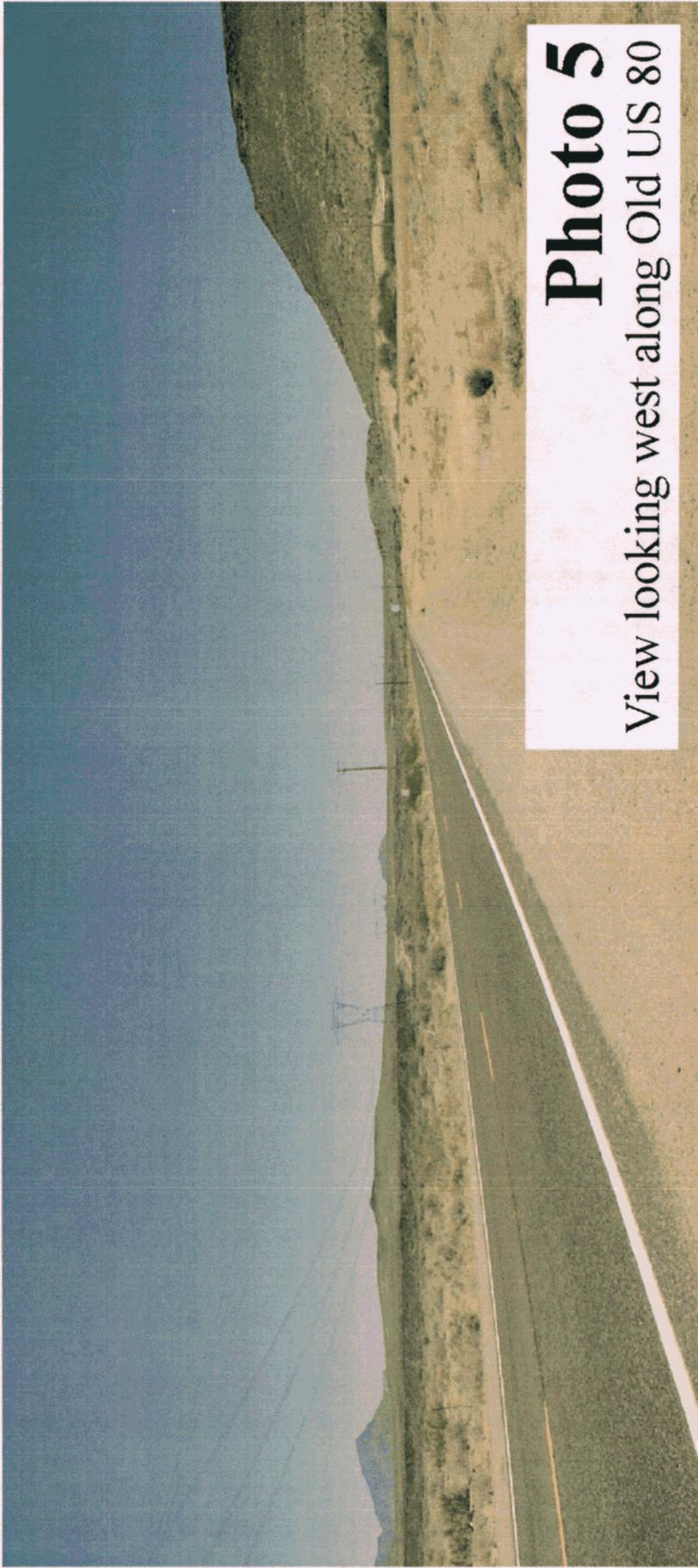


Photo 5

View looking west along Old US 80

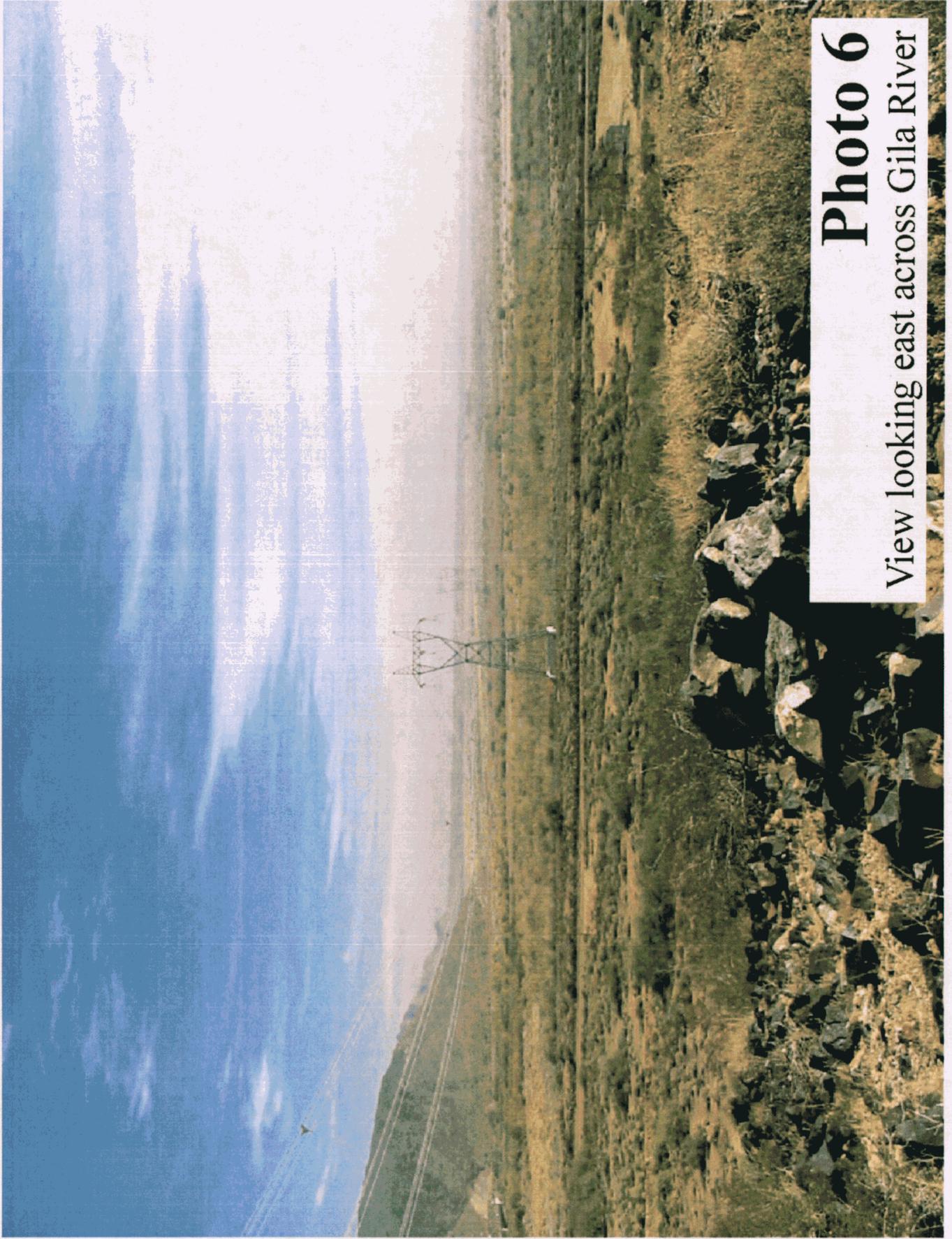


Photo 6
View looking east across Gila River

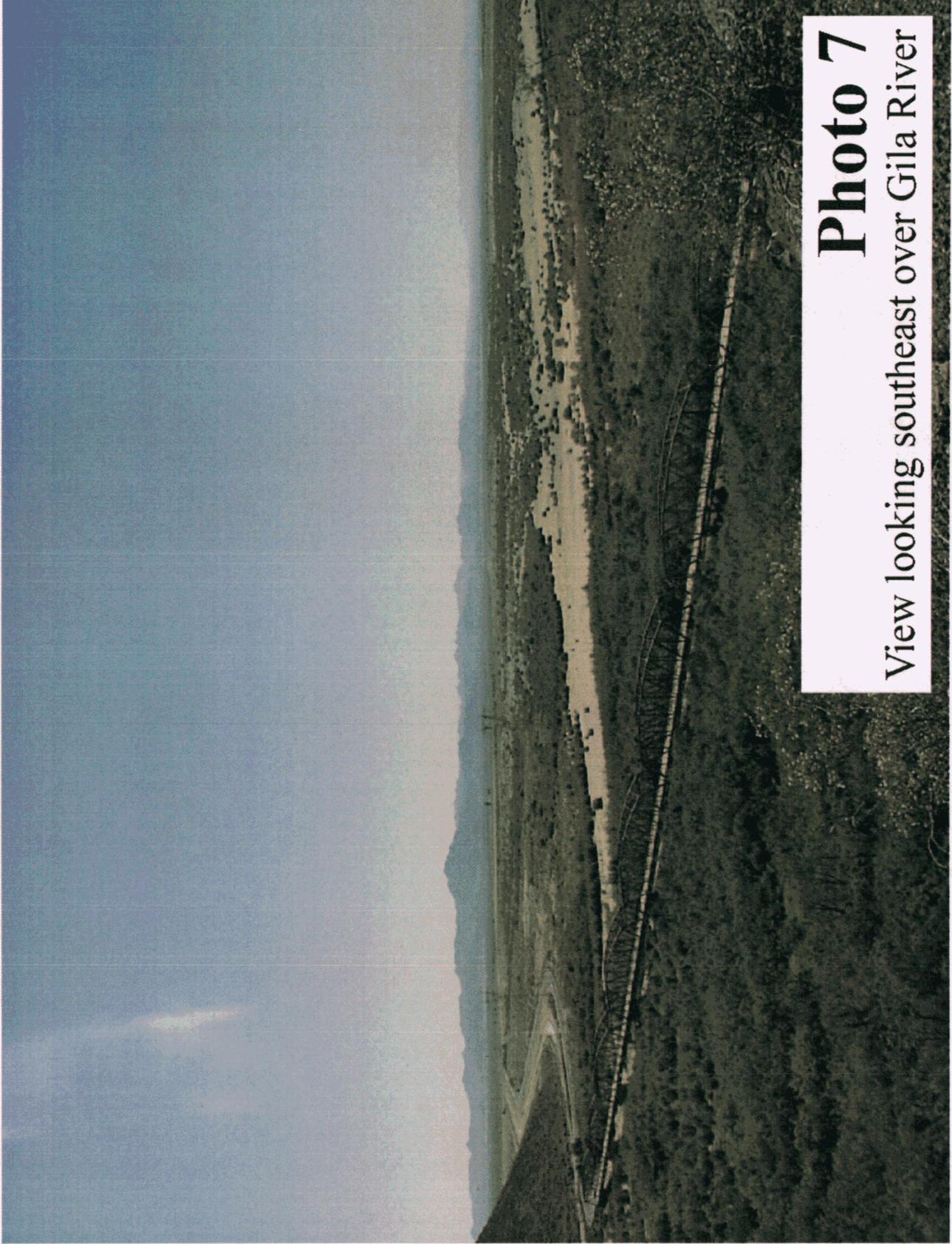


Photo 7
View looking southeast over Gila River

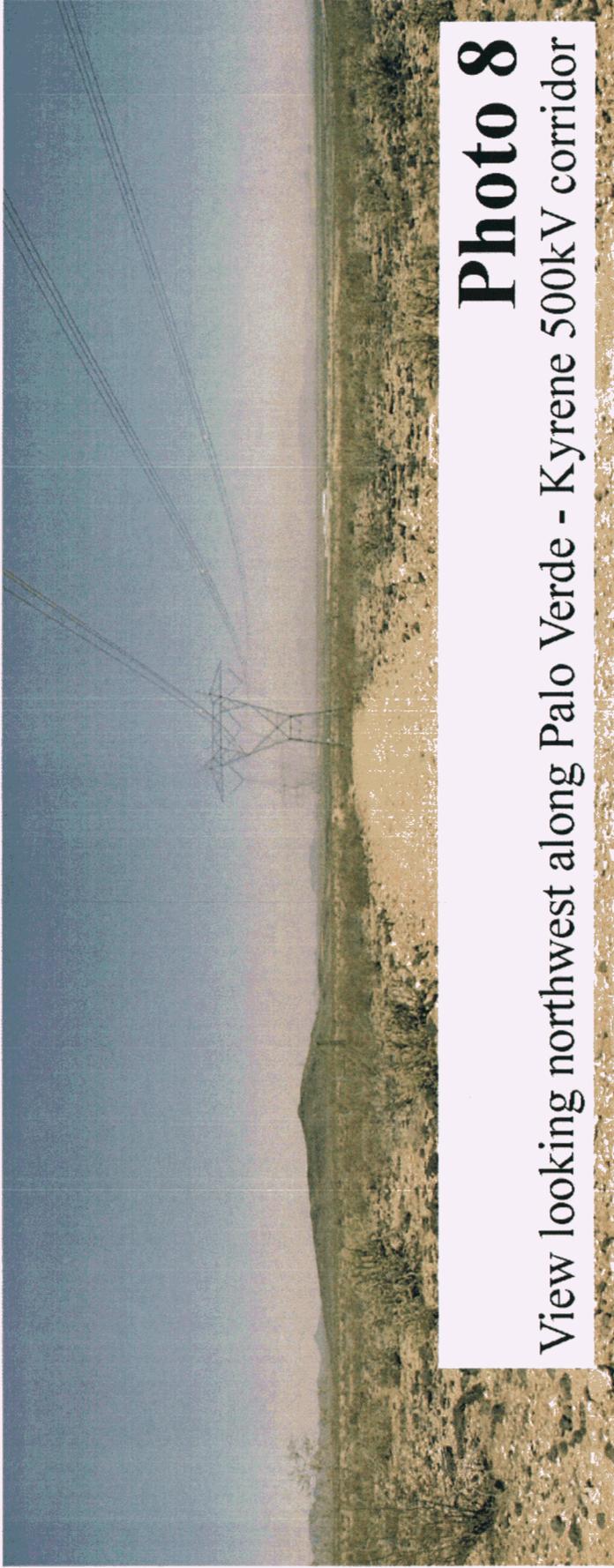


Photo 8

View looking northwest along Palo Verde - Kyrene 500kV corridor

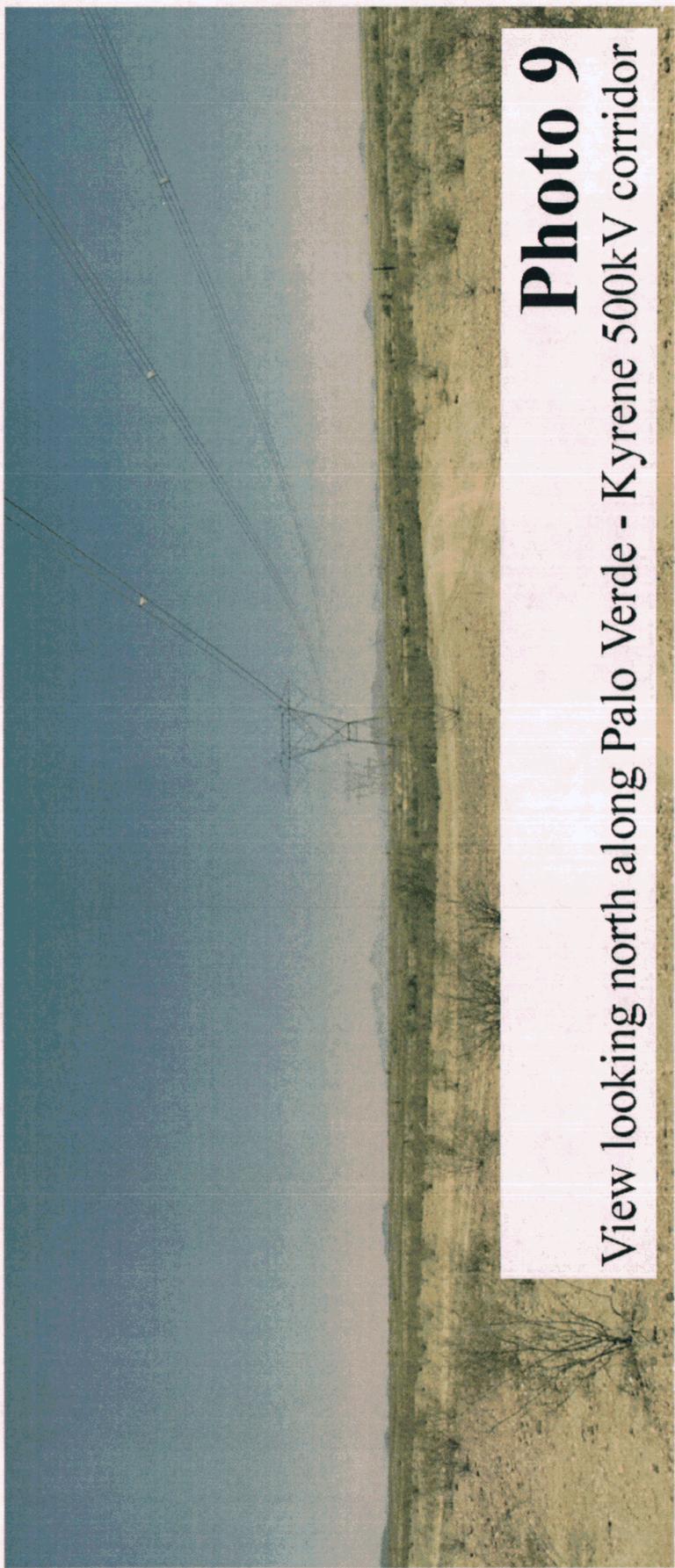


Photo 9

View looking north along Palo Verde - Kyrene 500kV corridor

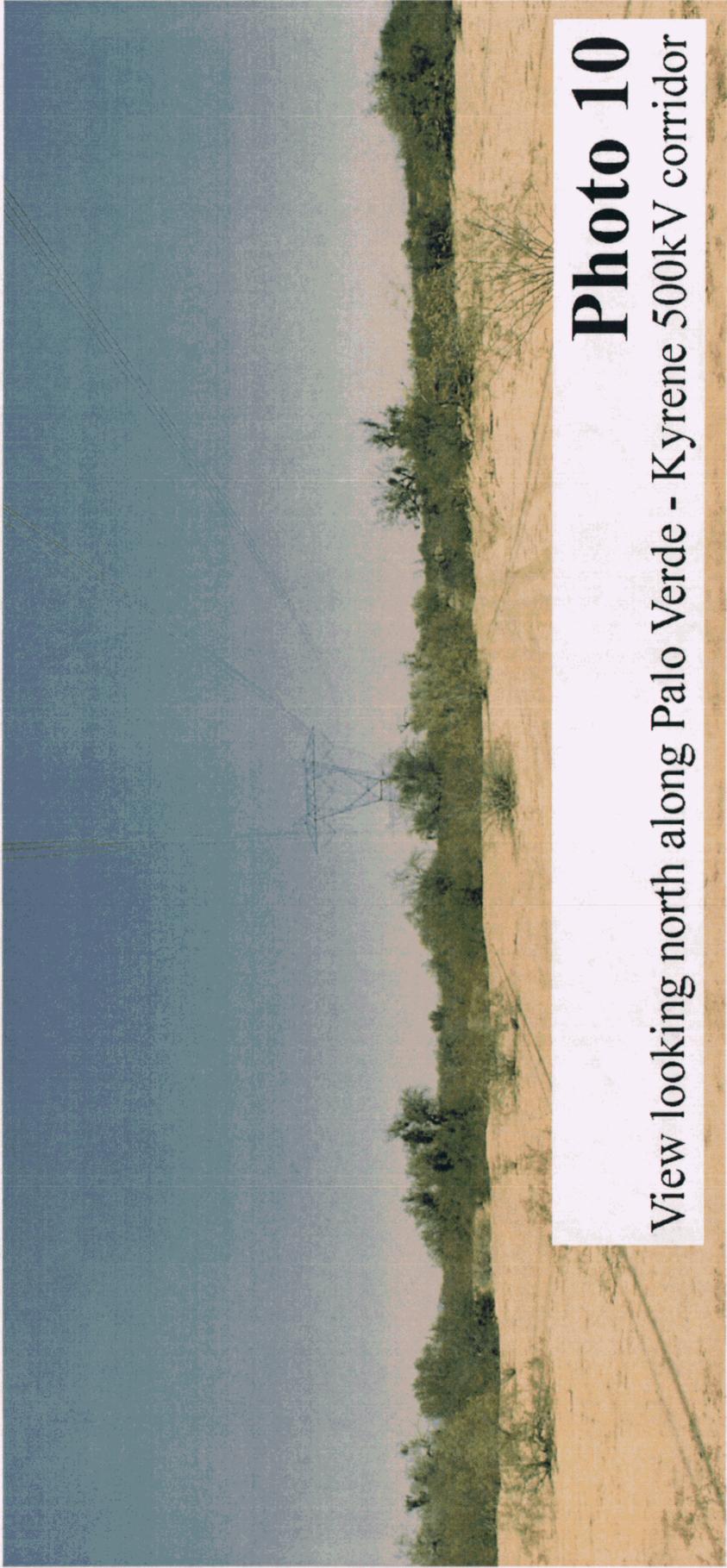


Photo 10

View looking north along Palo Verde - Kyrene 500kV corridor

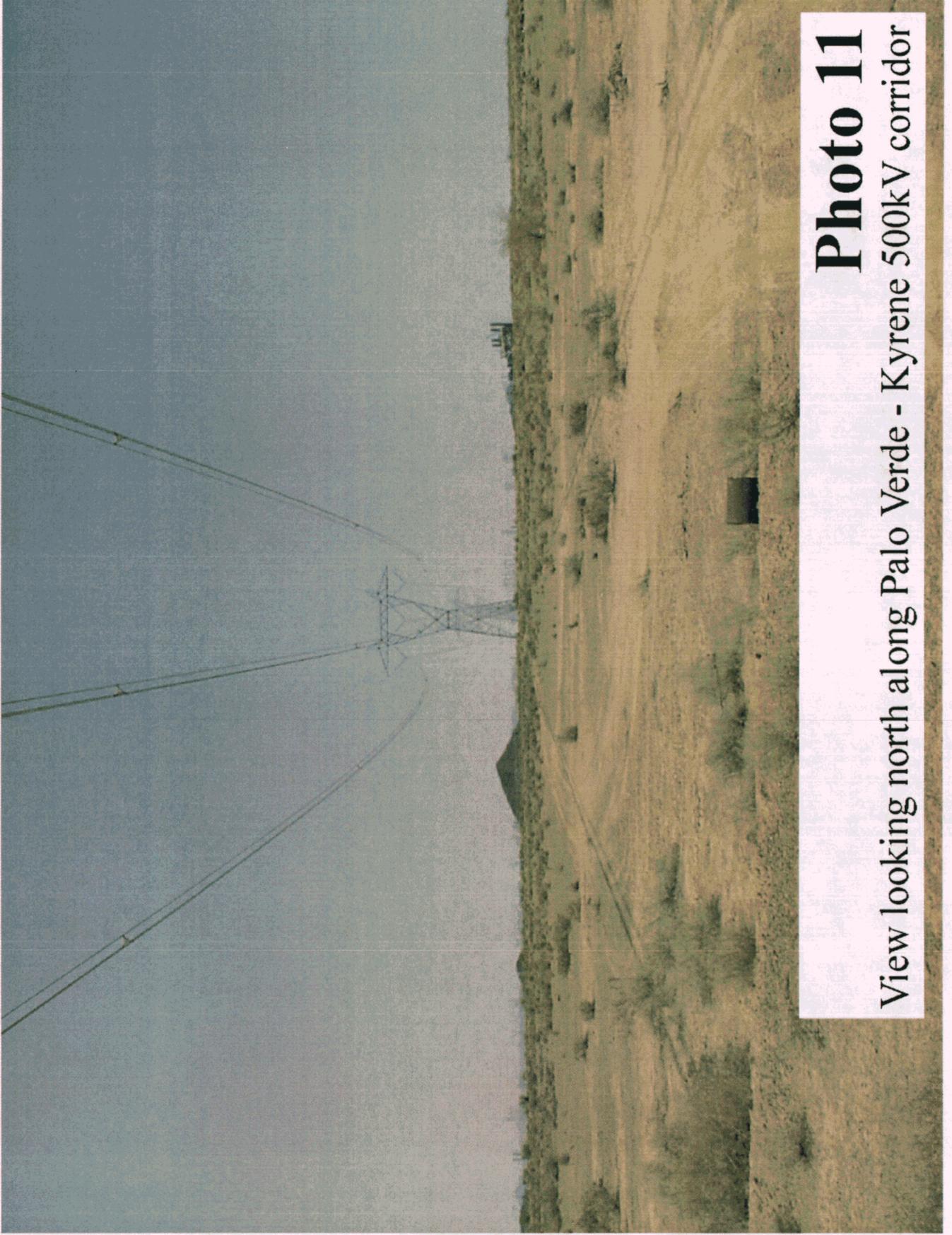


Photo 11
View looking north along Palo Verde - Kyrene 500kV corridor

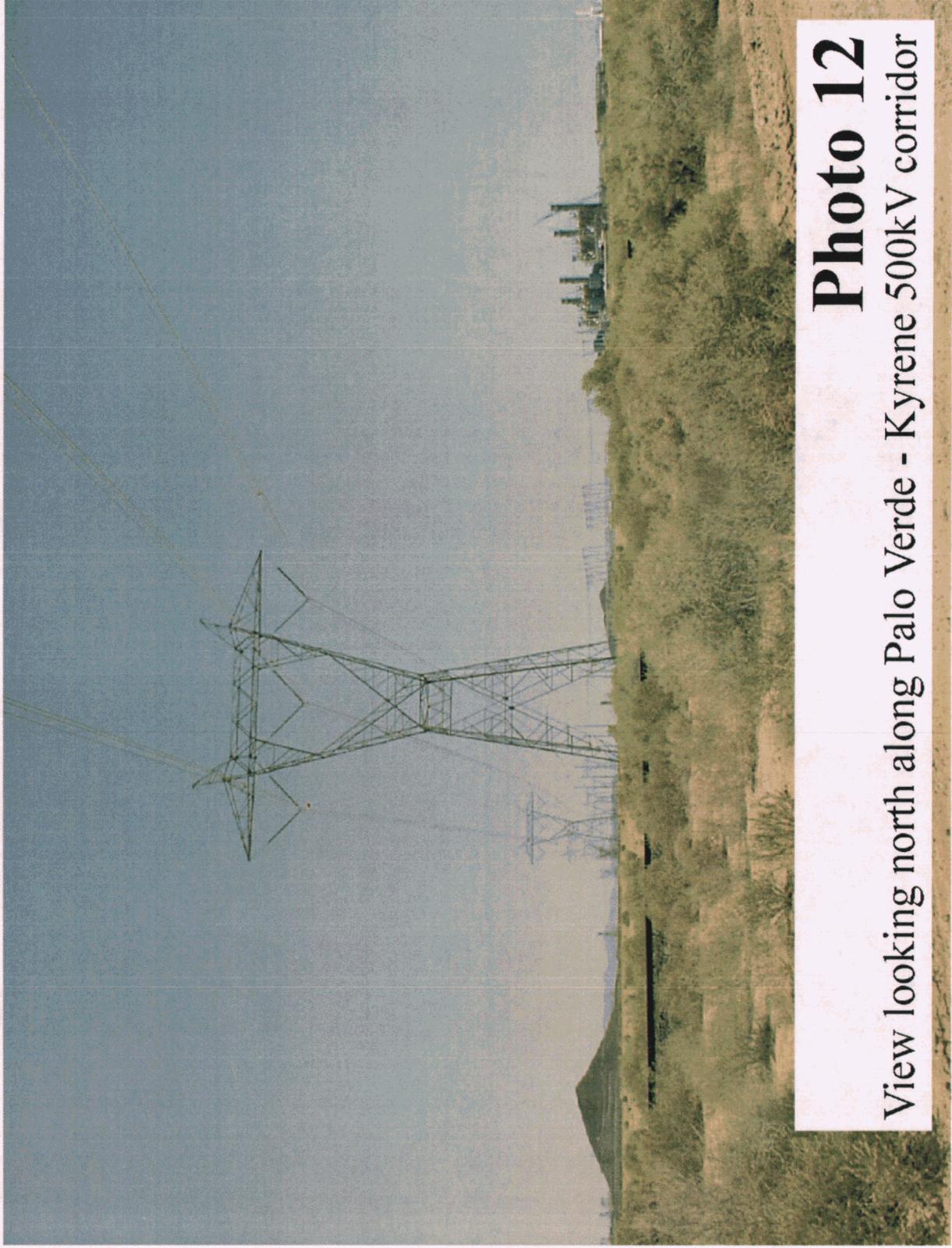


Photo 12
View looking north along Palo Verde - Kyrene 500kV corridor

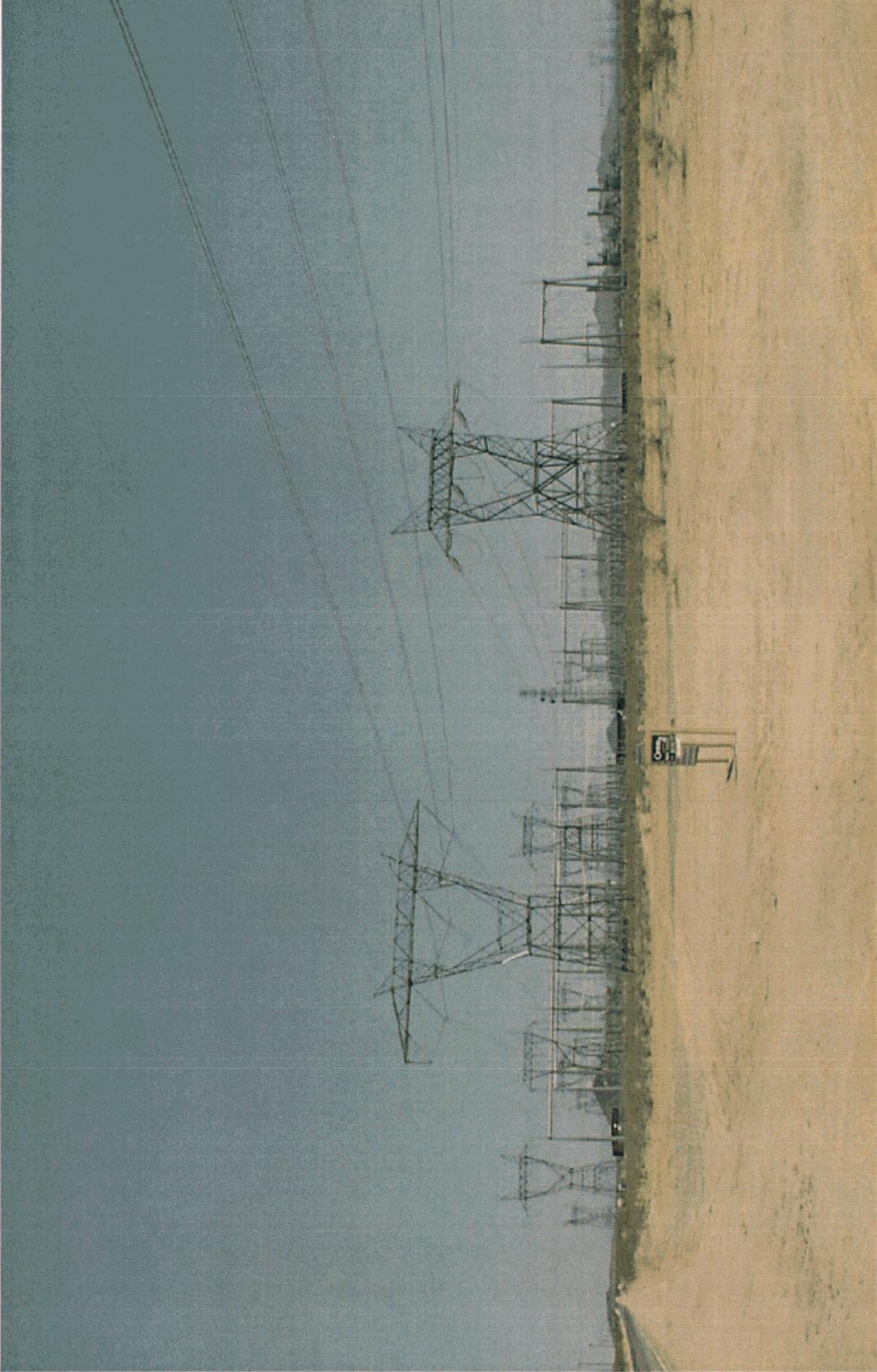


Photo 13

View looking east along Elliot Rd. towards the Hassayampa Switchyard

EXHIBIT B
ENVIRONMENTAL REPORT

EXHIBIT B ENVIRONMENTAL REPORT

As stated in Arizona Corporation Commission Rules of Practice R-14-3-219:

“Attach any environmental studies which applicant has made or obtained in connection with the proposed site(s) or route(s). If an environmental report has been prepared for any federal agency or if a federal agency has prepared an environmental statement pursuant to Section 102 of the National Environmental Policy Act, a copy shall be included as part of this exhibit.”

The proposed route would be in the corridor of the existing Palo Verde-Kyrene 500kV transmission line for its entire distance. A portion of the proposed route, approximately 7 miles, would cross lands under the jurisdiction of the BLM. The BLM has designated this corridor as a 1-mile-wide utility corridor centered on the existing Palo Verde-Kyrene transmission line. GBPP must obtain a right-of-way from the BLM in order to construct on those lands. Prior to potentially obtaining this right-of-way, an EA pursuant to NEPA and BLM NEPA guidelines must be prepared. EPG is working under the direction of the BLM Phoenix Field Office on the preparation of an EA. It is anticipated that the EA will be available for public review in early fall of this year and a Decision Record issued in the fall.

Provided in this exhibit is the land use evaluation report. For the purpose of assessing impacts for land use, visual, and biological resources, a 200-foot-wide right-of-way immediately adjacent to the existing Palo Verde-Kyrene line right-of-way was assumed (on the west and south side of the existing line west of the Gila River and north side of the existing line east of the river) was assumed.

LAND USE

OVERVIEW

This report includes an inventory of existing and planned land use within the study corridor for the proposed Hassayampa to Jojoba Transmission Line Project and an assessment of potential impacts that may occur as a result of construction and operation of the proposed Project. The land use inventory includes three major components: land ownership and jurisdiction, existing land uses, and planned land uses, i.e., future land use plans. The methods that were used for the land use inventory include review and interpretation of maps, aerial photographs and other documents, and field verification. In addition, this inventory is based on communication with private landowners and governmental agencies.

The study area was a 4-mile-wide corridor (2 miles on each side of the reference centerline for the proposed 500kV line). In general, most of the land is undeveloped in the study corridor with the exception of limited agricultural, residential, commercial, a BLM designated utility corridor, existing pipelines (4), and one 500kV transmission line.

EXISTING CONDITIONS

Land Ownership and Jurisdiction

As shown on Exhibit A-1, the proposed route crosses two jurisdictions—Maricopa County and the Town of Buckeye. The land ownership within the study area includes federal (BLM), state, Arizona Game and Fish Department, and private entities.

Table B-1 presents land ownership that the proposed 500kV route would cross in approximate miles. Table B-2 presents the jurisdictions that the proposed route would cross.

| Ownership | Miles (approximate) |
|--------------------|------------------------|
| BLM | 6.8 |
| State trust | 7.1 |
| Private | 6.1 |
| Route Total | 20.0 |

| Jurisdiction | Miles (approximate) |
|---------------------|--------------------------------|
| Maricopa County | 19.0 |
| Town of Buckeye | 1.0 |
| Route Total | 20.0 |

Existing Land Use

Residential - Residential land use includes low-density residential areas and single-family dwelling units. Low-density residential area is defined as 0 to 2 dwelling units per acre and is located northeast of the Hassayampa Switchyard along Elliot Road approximately 1.8 miles from the proposed route. Single-family dwelling units are found along Old U.S. Highway 80 north of the Gillespie Dam (approximately 1 mile from the proposed route) and west of State Route 85. The closest residential units (2) lie west of State Route 85 and about ¼ mile south of the proposed 500kV transmission route.

Industrial/Utilities - Industrial uses in the study area consist primarily of utility operations including the PVNGS, Redhawk Power Generation Facility, Mesquite Power Generation Facility, Hassayampa Switchyard, El Paso Natural Gas Gila Pump Station, Jojoba Switchyard, Palo Verde-Kyrene 500kV transmission line, and three El Paso Natural Gas pipelines. In addition, the Southwest Regional Landfill is located south of the proposed route and east of State Route 85. Long-term plans exist to expand the landfill south and east in approximately 15 years (Dugas 2002).

Arizona State Prison Complex-Lewis - Arizona State Prison Complex - Lewis is located adjacent to State Route 85, about ½ mile south of the proposed route.

Agriculture - Irrigated farmlands occur in three areas including the northern portion of the study area west of the proposed route, in the vicinity of the Gila River and Arlington Canal, and south of the proposed route on the west side of Gila River and east from the Gila River to State Route 85. The Desierto Verde plant nursery is located on the west side of State Route 85 and would be crossed by the proposed route.

Transportation - Two major arterials are located in the study area: Old U.S. Highway 80 and State Route 85. Both of these arterials lie in a general north-south direction and cross the proposed route. Old U.S. Highway 80 is designated as a scenic road by the Maricopa County Department of Transportation (Maricopa County 1997). The Union Pacific Railroad crosses the northwestern portion of the study area south of the Redhawk Generating Facility.

Airstrip - Two airstrips exist in the study area. The first is located next to the El Paso Natural Gas Gila pump station approximately 0.4 mile from the proposed transmission line. The airstrip

is not maintained and seldom used (Courier 2002). The other airstrip is located in an agricultural area approximately ½ mile south of the proposed transmission line.

Abandoned Residence/Farm Complex - The abandoned facilities in the study area include housing built for El Paso Natural Gas employees that worked at the Gila pump station, an abandoned feedlot, and housing built by the Arlington Cattle Company (Maricopa County 2000).

Vacant Undeveloped Land - The proposed transmission route would cross mostly vacant BLM and state land used for grazing. The land is characterized by a lack of development and typical lower Sonoran desert vegetation. Table B-3 lists grazing allottees and the ownership along the proposed transmission route.

| Range Allotment/Lessee | Ownership |
|-------------------------------|------------------|
| A Lazy T | BLM, State |
| Layton | BLM |
| Jagow-Krenger | BLM |
| Hazen-Shepard | BLM |
| Hazen | State |
| Source: BLM 2002 | |

National Monuments – The Sonoran Desert National Monument, designated in 2001 by President Bill Clinton, is located in the southeastern portion of the study area approximately ¼ mile to the south and east of the proposed route.

Future Land Use

Bureau of Land Management

The portion of the Project that crosses BLM lands is located within the Lower Gila South Planning Area. The *Lower Gila South Resource Management Plan (RMP)* (BLM 1985) is the primary guide for the Lower Gila South Planning Area, part of the BLM Phoenix Field Office. The RMP provides a comprehensive framework for future management actions, uses, allocation of public land, and resources. The Federal Land Policy Management Act mandated that the BLM has the responsibility to manage public land under the guiding principle of multiple use. Thus, it is charged with managing public land use to meet the needs of the public while protecting the environment and public values.

The RMP identifies the Palo Verde-Kyrene 500kV transmission line corridor as one of ten “existing utility rights-of-way (within the Lower Gila South Planning Area) that should be designated to serve as utility corridors and recommends that each of these corridors be 1-mile-wide” (BLM RMP 1985, p.4). This corridor is referred to as No. 4 in the RMP.

Arizona State Trust Lands

The ASLD manages State Trust lands and resources. The initial process of purchasing trust land or long-term leasing for a right-of-way is to submit an application and a filing fee for review by the ASLD's Board of Appeals. Following the application review, ASLD determines if the proposed land use is adequate for sale or commercial lease. An auction is scheduled when ASLD determines that the best interest of the trust is to sell or lease the parcel. At the time of this application, no specific future plans for state land within the study area were identified.

Arizona Department of Transportation

The Arizona Department of Transportation plans to widen State Route 85 to accommodate a total of four lanes from Interstate 10 to the Town of Gila Bend. Initial plans for the portion of State Route 85 that occurs in the study area are to expand to the west of the existing road centerline approximately 250 feet to the edge of the right-of-way (Dimitroplos 2002), which would be within the anticipated span of the proposed line.

Maricopa County

The future use of unincorporated private lands is planned under the jurisdiction of Maricopa County. The Maricopa County Tonopah/Arlington Area Plan (Maricopa County 1997) provides for rural residential and open space uses on the lands within the northern portion of the Project study area. The open space designation denotes areas intended for open space and recreation, and the rural designation allows for up to one dwelling unit per acre in areas where urban services are limited. The southern and eastern portions of the study area are shown as rural development areas in the Maricopa County 2020 Comprehensive Plan. Approximately 1 mile south of the proposed Project is a planned residential development, in the concept stage, of about 50 lots and 2 ski lakes called the Spring Mountain Ski Ranch (Nolan 2002).

Town of Buckeye

The Town of Buckeye has annexed a small piece of land in the eastern portion of the study area; however, the Town of Buckeye's planning area extends from the Gila River east beyond the study area. At this time, no future plans have been identified for this area (Zeller 2002).

Utilities

In addition to the GBPP proposed transmission line, four other extra high voltage transmission line projects have been proposed for construction in the Palo Verde-Kyrene BLM designated utility corridor between the Hassayampa and Jojoba switchyards. A trust made up of a group of utility companies has an existing CEC for a 500kV transmission line adjacent to the Palo Verde-

Kyrene line from PVNGS to Saguaro Substation (Case No. 24). Salt River Project (SRP) announced last year that a proposed 500kV transmission line would be built from the Hassayampa Switchyard to the southeast valley. The Public Service Company of New Mexico (PNM) applied for a BLM right-of-way for two 345kV transmission lines that would connect the Hassayampa Switchyard to Sonora, Mexico. An environmental impact statement is currently being prepared for this PNM project. It appears the 1-mile-wide designated utility corridor will accommodate all of these currently planned transmission lines. Additionally, according to the current CATS study (inclusive of the existing Palo Verde-Kyrene transmission line), three 500kV transmission lines in this corridor will be sufficient capacity to meet the transmission requirements of these various above-mentioned projects.

POTENTIAL IMPACTS

It is anticipated that the proposed transmission line would have minimal long-term adverse effects on the majority of existing or planned land uses. The majority of the land along the proposed route is currently vacant and no new land uses are planned or proposed within the transmission corridor. Impacts could occur to the Desierto Verde plant nursery at the eastern end of the study area. If spans of the Palo Verde-Kyrene transmission line were matched by the proposed Project, the new lattice structures of the Project would not be required to be placed within a planting area. Currently, GBPP is determining whether or not the planting and harvesting of trees within the proposed 500kV right-of-way under the conductors may pose conflicts. There are no trees currently planted in the existing Palo Verde-Kyrene right-of-way. The proposed transmission line would be on the opposite side of the existing Palo Verde-Kyrene line at both airstrip locations; therefore, no adverse effects are expected. Construction and operation of the 500kV transmission line would avoid conflicts with those potential residential land uses.

The proposed 500kV transmission line route would be in the same BLM designated corridor as the existing Palo Verde-Kyrene 500kV line. The route would be within an adjacent right-of-way and would not impact (directly or indirectly) residences. Grazing activities may take place after construction without any substantial loss of grazing capacity. Temporary, short-term disturbances would be mitigated during and after the construction period.

Standard Operating Procedures and Mitigation Measures

Standard operating procedures and mitigation measures that have been committed to by GBPP to reduce land use impacts are as follows:

- The Applicant shall match structure spans with the existing Palo Verde-Kyrene line for the proposed Project unless site-specific conditions require a structure to be moved.

- The Applicant shall use existing access roads along the Palo Verde-Kyrene line for construction and maintenance access and only build spur roads for access to new structures.

REFERENCES

Arizona Department of Corrections. 2002. Arizona State Prison Complex – Lewis. (<http://www.adc.state.az.us:81/lewis.htm>). May.

Arizona State Land Department. 2002. Acquisition of State Trust Land. (<http://www.land.state.az.us>). May.

Bureau of Land Management. 2002. Grazing Allotment information from Phoenix Field Office.

_____. 1985. Lower Gila South Resource Management Plan Environmental Impact Statement Phoenix District, Arizona – Final. August.

Courier, J.C. June 2002. Personal communication to Newton DeBardeleben from an El Paso Natural Gas employee.

Dimitroplos, Christ. May and July 2002. Personal Communication. Arizona Department of Transportation project manager to Newton DeBardeleben.

Dugas, Brad. May 2002. Personal Communication. Southwest Regional Landfill general manager.

Holm, Matthew. May 2002. Personal Communication. Maricopa County senior planner to Newton DeBardeleben.

Maricopa County. September 2000. Tonopah/Arlington Area Plan - 2020 Eye to the Future.

Maricopa County. December 1997. Transportation System Plan – 2020 Eye to the Future.

Nolan, Jackie. July 2002. Personal Communication. Maricopa County planner to Newton DeBardeleben.

Zeller, Liz. April 2002. Personal Communication. Town of Buckeye planner.

EXHIBIT C
AREAS OF BIOLOGICAL WEALTH

EXHIBIT C

AREAS OF BIOLOGICAL WEALTH

As stated in Arizona Corporation Commission Rules of Practice and Procedure R14-3-219:

“Describe any areas in the vicinity of the proposed site or route which are unique because of biological wealth or because they are habitats for rare and endangered species. Describe the biological wealth or species involved and state the effects, if any, the proposed facilities will have thereon.”

OVERVIEW

Lists of special status species were compiled using information obtained from the Arizona Game and Fish Department, Arizona Department of Agriculture, and the U.S. Fish and Wildlife Service (USFWS) for a similar project located in close proximity to the proposed Project. Portions of the proposed Project area were reviewed by biologists in the field.

EXISTING CONDITIONS

Special status wildlife and plant species that potentially occur within the site vicinity are listed in Table C-1 on the following page. These include species listed as endangered or threatened under the Endangered Species Act, wildlife of special concern identified by the Arizona Game and Fish Department, or highly safeguarded plants by the Arizona Department of Agriculture.

POTENTIAL IMPACTS

One result of construction of this Project is the removal of protected plant species. Species used for firewood such as velvet mesquite and ironwood trees are classified as harvest-restricted under the Arizona Native Plant Law. If these trees are to be removed from private lands, the Arizona Department of Agriculture should be notified (1) 30 days before plants are destroyed in an area of one acre or more but less than 40 acres, and (2) 60 days before plants are destroyed in an area of 40 acres or more.

**TABLE C-1
SPECIAL STATUS WILDLIFE AND PLANT SPECIES THAT COULD OCCUR
WITHIN THE PROJECT VICINITY**

Key:

Federal Status: E = Endangered T = Threatened C = Candidate SC = Special Concern
State Status: WC = Wildlife of Special Concern HS = Highly Safeguarded

| Common Name | Scientific Name | Habitat | Federal Status | State Status |
|--|---|--|----------------|--------------|
| MAMMALS | | | | |
| California leaf-nosed bat | <i>Macrotus californicus</i> | Primarily cave and mine dwellers, mostly in Sonoran desertscrub | SC | WC |
| Lesser long-nosed bat | <i>Leptonycteris curasoae yerbabuenae</i> | Desertscrub with agave and columnar cacti present as food plants | E | WC |
| Cave myotis | <i>Myotis velifer</i> | Desertscrub with caves or mine tunnels and water nearby | SC | |
| BIRDS | | | | |
| Western least bittern | <i>Ixobrychus exilis hesperis</i> | Marshy areas of emergent vegetation | SC | W |
| Great egret | <i>Ardea alba</i> | Ponds, streams, and marshes | | WC |
| Snowy egret | <i>Egretta thula</i> | Ponds, streams, and marshes | | WC |
| Osprey | <i>Pandion haliaetus</i> | Near lakes and streams | | WC |
| Bald eagle | <i>Haliaeetus leucocephalus</i> | Lakes and rivers | T | WC |
| Ferruginous hawk | <i>Buteo regalis</i> | Dry open country, fields | | WC |
| Peregrine falcon | <i>Falco peregrinus</i> | Cliffs, generally distributed, tops of tall urban buildings | | WC |
| Yuma clapper rail | <i>Rallus longirostris yumanensis</i> | Cattail marshes | E | WC |
| Cactus ferruginous pygmy-owl | <i>Glaucidium brasilianum cactorum</i> | Mature cottonwood/willow, mesquite bosques, and Sonoran desertscrub | E | WC |
| Western yellow-billed cuckoo | <i>Coccyzus americanus occidentalis</i> | Riparian areas | C | WC |
| Belted kingfisher | <i>Ceryle alcyon</i> | Ponds, streams, and canals | | WC |
| Southwestern willow flycatcher | <i>Empidonax traillii eximius</i> | Areas of willow, tamarix, cottonwood with a well-developed lower canopy | E | WC |
| REPTILES AND AMPHIBIANS | | | | |
| Lowland leopard frog | <i>Rana yavapaiensis</i> | Restricted to permanent waters: pools of foothill streams, overflow ponds below 4,800-foot elevation | SC | WC |
| Desert tortoise | <i>Gopherus agassizii</i> | Riverbanks, washes, dunes, and rocky slopes | SC | WC |
| PLANTS | | | | |
| Crested or Fan-top saguaro | <i>Carnegiea gigantea</i> | Rocky hillsides and outwash slopes | | HS |
| Sources: Arizona Department of Agriculture 1994, 2002; Arizona Game and Fish Department 1996; Hoffmeister 1986; Minckley 1971; Monson and Phillips 1981; Stebbins 1985; USFWS 1999, 2002a, 2002b; Witzeman et al. 1997 | | | | |

Impacts to threatened, endangered, and otherwise sensitive species of plants and animals are addressed individually as follows:

- Threats to California leaf-nosed bats (*Macrotus californicus*) include vandalism at roost sites and a general lack of suitable winter roost sites. Winter roost sites must be warm because prolonged exposures to temperatures below 78 degrees can be fatal to this species (Arizona Game & Fish Department 1993). This species roosts in caves and mine shafts. It is possible that some small caves and mine shafts are present in the hills near the Project area. Desertscrub vegetation provides foraging habitat for the California leaf-nosed bat. Construction of this Project and post-construction presence of Project facilities should not have a substantial impact on this species.
- Lesser long-nosed bats (*Leptonycteris curasoae yerbabuenae*) roost in caves and mine shafts and forage at columnar cacti and agave flowers. It is possible that some small caves and mine shafts are present in the hills near the Project area. Construction of this Project and post-construction presence of facilities should have no substantial impact on this species. Minor impacts are possible, if any saguaro cacti or paniculate agaves are removed during construction of the Project.
- Cave myotis (*Myotis velifer*) are found in mine shafts, tunnels, caves, and under bridges in the desert. They inhabit areas within a few miles of a water source such as tanks, canals, or creeks. The Gila Bend and Enterprise canals and the Gila River would constitute sources of water in the Project area. Construction of this Project and post-construction presence of facilities should have no substantial impact on this species.
- The western least bittern (*Ixobrychus exilis hesperis*) is a common summer resident of marshy areas with emergent vegetation; therefore, this species may be found on the Gila River near Gillespie Dam. The proposed transmission line would not affect any emergent wetlands. Therefore, impacts on the western least bittern should not be significant.
- Great egrets (*Ardea alba*) and snowy egrets (*Egretta thula*) may be present along the Gila Bend and Enterprise canals where they forage along the water's edge. Snowy egrets may also forage in agricultural fields in the vicinity of the Project. Breeding by these egrets is restricted to areas along the Colorado River and is not expected in the study area (Witzeman et al. 1997). Neither of these species is likely to be affected by construction of the Project. Minor collision hazard potential would exist for the life of the Project with the possibility of egrets colliding with conductors or static lines, especially when birds are moving up or down the Gila River at night.
- Osprey (*Pandion haliaetus*) and bald eagles (*Haliaeetus leucocephalus*) could utilize the Gila Bend and Enterprise canals for foraging during migration or winter. The proposed transmission lines cross the canals, which could pose a collision hazard for these species as they forage along the canal. The towers supporting the transmission lines could also provide perching locations close to the canals.

- Ferruginous hawks (*Buteo regalis*) and peregrine falcons (*Falco peregrinus*) may utilize the vicinity of the transmission line route during migration or winter. Towers that support the transmission lines could provide perching locations for these species. Peregrines, in particular, utilize tall structures (cliffs, buildings, and power poles).
- The Yuma clapper rail (*Rallus longirostris yumanensis*) may be found in cattail marshes on the Gila River near Gillespie Dam during the summer. The proposed transmission line would not affect any emergent (cattail) wetlands. Consequently, impacts to the Yuma clapper rail should be negligible.
- Native vegetation along certain washes in the vicinity of the proposed transmission line route is low quality potential habitat for the endangered cactus ferruginous pygmy-owl (*Glaucidium brasilianum cactorum*). The habitat quality is low because the tree canopy along the washes is discontinuous, and the structural diversity and canopy cover preferred by the owls are generally lacking. Surveys for pygmy-owls were completed along washes that cross the proposed transmission line and support potential habitat for this species. Surveys were carried out following the survey protocol released by Arizona Game and Fish Department and USFWS in January 2000. No cactus ferruginous pygmy-owls were detected during surveys on this route in 2001 and 2002. Removal of native vegetation could result in some loss of potential habitat for this species.
- It is possible that the western yellow-billed cuckoo (*Coccyzus americanus occidentalis*) could occupy areas along the Gila River during the summer months. The proposed crossing of the Gila River by this transmission line is located in an area below Gillespie Dam that does not support the type of riparian vegetation (cottonwood-willow) that is preferred by this species. Consequently, potential impacts to this species would be negligible.
- Belted kingfishers (*Ceryle alcyon*) may forage along the Gila Bend and Enterprise canals during the winter. This species is not expected to breed in the vicinity of the proposed Project because it is generally a winter visitor. Nesting by this species in Arizona is very unusual although not unknown (Monson and Phillips 1981). It is unlikely that construction of the Project or post-construction presence of Project facilities would have any effect on this species.
- Southwestern willow flycatchers (*Empidonax traillii extimus*) may find habitat in the dense salt cedar (*Tamarix ramosissima*) where the proposed transmission line crosses the Gila River. Surveys for these flycatchers must be carried out during their season of occurrence immediately preceding construction. If surveys indicate presence of southwestern willow flycatchers in the Project area, work in this area may have to be halted during breeding season. GBPP intends to retain EPG biologists to conduct these surveys, per the agency guidelines, in 2003 prior to construction.
- Lowland leopard frogs (*Rana yavapaiensis*) are present in areas of the upper Gila and Agua Fria rivers, but have been extirpated from the lower Gila River. This species could

potentially utilize the Gila Bend and Enterprise canals; however, the chance of this occurring is extremely low. Because the Project would span and not impact these canals, no impacts to this species are expected.

- Sonoran desert tortoises (*Gopherus agassizii*) occur in desert mountains, rocky areas, caliche washes, and bajadas in desert scrub vegetation communities. They may be present within the rocky hills northwest and northeast of the Gila River crossing. The Sonoran population is managed as wildlife of special concern by the Arizona Game and Fish Department and is on the BLM sensitive species list. Lands traversed by the proposed Project are not included in BLM's Category I or Category II tortoise habitat designations. Consequently, the BLM would not require construction monitoring for this species.
- Crested or fan-top saguaros (*Carnegiea gigantea*) are a rare growth form caused by freezing or mechanical injury to the saguaro's apical meristem (Steenbergh and Lowe 1983). The crested saguaro is listed as highly safeguarded in Arizona. This growth form could be present wherever saguaros are found in the study area. No crested saguaros were observed within the right-of-way during fieldwork for the Project.

A variety of special status wildlife and plant species may be found in the vicinity of the proposed Project, but impacts from this Project are not expected to be substantial.

Standard Operating Procedures and Mitigation Measures

Standard operating procedures and mitigation measures that would reduce the impact to biological resources and have been committed to by GBPP are as follows:

- Surveys for southwestern willow flycatchers would be conducted prior to construction, and mitigation measures would be implemented according to state and federal guidelines to minimize potential disturbances to special status species and habitat. If necessary, additional cactus ferruginous pygmy-owl surveys will be conducted in the appropriate season prior to construction.
- The Applicant shall restrict all construction vehicle movement outside of the right-of-way to predesignated access, contractor acquired access, or public roads.
- The Applicant shall conduct all construction and maintenance activities in a manner that would minimize disturbance to vegetation, drainage channels, and intermittent and perennial streambanks. For example, the Applicant shall remove only the minimum amount of vegetation necessary for the construction of structures and facilities. In construction areas where recontouring is not required, vegetation shall be left in place to avoid excessive root damage and allow for resprouting. In addition, all existing roads shall be left in a condition equal to or better than their condition prior to the construction of the transmission line.

- The Applicant shall restore the ground surface in construction areas (e.g., marshalling yards, structure sites) where ground disturbance is significant or where recontouring is required. The method of restoration may include returning disturbed areas to their natural contour (to the extent practical), reseeding with native plants, installing cross drains for erosion control, placing water bars in the road, and filling ditches. Seed must be tested and certified to contain no noxious weeds in the mix. Seed viability must also be tested at a certified laboratory approved by the authorized officer.
- Prior to construction, all construction personnel shall be provided an environmental construction plan and instructed on the protection of cultural and ecological resources. To assist in this effort, the construction contract shall address (a) federal and state laws regarding antiquities and plants and wildlife including collection and removal; and (b) the importance of these resources and the purpose and necessity of protecting them.
- The Applicant shall cover construction holes left open at night. The covers shall be secured in place and shall be strong enough to prevent livestock or wildlife from falling through and into any hole.
- The Applicant shall construct structures to conform to "Suggested Practices for Raptor Protection on Power Lines" (Raptor Research Foundation, Inc. 1981).
- The Applicant shall retain a qualified biologist to monitor all ground clearing/disturbing construction activities in areas where sensitive species occur. The biological monitor will be responsible for ensuring proper actions are taken if a special status species is encountered.
- The Applicant shall comply with Arizona's Native Plant Law and notify the Arizona Department of Agriculture no later than 60 days prior to the start of construction.

REFERENCES CITED

- Arizona Department of Agriculture. 2002. Protected Native Plants by Categories web site: <http://agriculture.state.az.us/psd/protplantlst.htm>. Arizona Department of Agriculture. Accessed May 5, 2002.
- _____. 1994. Highly safeguarded protected native plants of Arizona. Native Plant Protection Program. Phoenix, Arizona.
- Arizona Game and Fish Department. 1996. Wildlife of Special Concern in Arizona (Public Review Draft). Arizona Game and Fish Department, Phoenix, Arizona. 23 pp.
- _____. 1993. Bats of Arizona. Arizona Wildlife Views. Aug. 1993 36 pp.
- Hoffmeister, D.F. 1986. Mammals of Arizona. University of Arizona Press, Tucson, Arizona. 602 pp.
- Minckley, W.L. 1971. Fishes of Arizona. Arizona Game and Fish Department, Phoenix, Arizona.
- Monson G. and A.R. Phillips. 1981. Annotated checklist of the birds of Arizona. Second edition. University of Arizona Press. 240 pp.
- Stebbins, R.C. 1985. A field guide to western reptiles and amphibians. Petersen Field Guides. Houghton Mifflin Co., Boston. 336 pp.
- Steenbergh, W.F. and C.H. Lowe. 1983. Ecology of the Saguaro: III. Scientific Monograph Series, No. 17. U. S. Department of the Interior, National Park Service, Washington, D.C.
- U.S. Fish and Wildlife Service. 1999. Endangered and threatened wildlife and plants; review of plant and animal taxa that are candidates or proposed for listing as endangered or threatened; annual notice of findings on recycled petitions; annual description of progress on listing actions; proposed rule. Federal Register 64(205):57534-57547.
- _____. 2002a. Endangered species web page: www.fws.gov/r9endspp/statl-r2.html#lnkAZ. U.S. Fish and Wildlife Service. Accessed May 3, 2002.
- _____. 2002b. Endangered species list web page: [http://ifw2es.fws.gov/Endangered Species/Lists/ListSpecies.cfm](http://ifw2es.fws.gov/Endangered%20Species/Lists/ListSpecies.cfm). Arizona Ecological Services. Accessed May 29, 2002.
- Witzeman, J., S. Demaree and E. Radke. 1997. Birds of Phoenix and Maricopa County, Arizona. Maricopa Audubon Society, Phoenix, Arizona. 153 pp.

EXHIBIT D
BIOLOGICAL RESOURCES

EXHIBIT D

BIOLOGICAL RESOURCES

As stated in Arizona Corporation Commission Rules of Practice and Procedure R14-3-219:

"List the fish, wildlife, plant life and associated forms of life in the vicinity of the proposed site or route and describe the effects, if any, other proposed facilities will have thereon."

OVERVIEW

A biological field crew surveyed portions of the proposed transmission line route in order to assess the plant communities and associated fauna affected by the Project. Plants and animals were identified and noted along with major geographic features. Lists of potentially occurring species of animals were assembled from standard references for the state.

EXISTING CONDITIONS

The proposed transmission line route would cross areas that include native vegetation of the Lower Colorado River Valley and Arizona Upland subdivisions of the Sonoran Desertscrub biome (Turner & Brown 1994). The majority of the Sonoran desertscrub on the Project site is dominated by creosote bush (*Larrea tridentata*), triangle-leaf bursage (*Ambrosia deltoidea*), and white bursage (*A. dumosa*), but these sites are regularly interrupted by washes and xeroriparian areas where larger shrubs and trees dominate. Plant species in these areas include saguaro cactus (*Carnegiea gigantea*), foothill paloverde (*Parkinsonia microphylla*), blue paloverde (*Parkinsonia florida*), ironwood (*Olneya tesota*), velvet mesquite (*Prosopis velutina*), and wolfberry (*Lycium* sp.). Barrel cactus (*Ferocactus wislizenii*), hedgehog cactus (*Echinocereus* spp.), and cholla cactus (*Opuntia* spp.) are found in both areas.

In addition to the desert plant communities that dominate the region, mesic riparian habitats are present along the Gila River above and below Gillespie Dam. Historically, riparian habitats along perennial streams in southern Arizona were dominated by associations of cottonwood (*Populus fremontii*) and willow (*Salix nigra*). In the early 1900s, salt cedar (*Tamarix ramosissima*) became widely naturalized in the Southwest and ultimately came to dominate most streamside habitats in the Colorado River drainage, including the Gila River. This Project would cross the Gila River just downstream from Gillespie Dam. Domination of the riparian community by salt cedar at this location is nearly 100 percent. There are scattered, generally small cottonwoods and willows in the vicinity of the crossing, but salt cedar is the overwhelming dominant.

For species of mammals, birds, reptiles and amphibians, and fish that may occur in the Project area, refer to Tables D-1, D-2, D-3, and D-4, respectively.

POTENTIAL IMPACTS

Impacts to native vegetation associated with construction of the proposed Project are not expected to be significant. Removal of plants associated with the Project is expected to be minimal. Native vegetation characteristic of the Sonoran Desert is extensive in southern Arizona. Therefore, removal of the relatively small amount of native vegetation present on the Project site would not harm this vegetation community as a whole.

In areas where native vegetation is cleared there would be a permanent loss of potential habitat for small mammals, reptiles, and birds. Construction activities may result in temporary disturbance of wildlife due to the presence of construction equipment and human activity. Another construction-related impact is the potential for incidental injury or mortality of reptiles and fossorial mammals, although such impacts are expected to be minimal. Fish present in the Gila River and the Gila Bend and Enterprise canals would not be affected by this Project. The proposed transmission line would span the canals, and the tower that would be closest to the Gila River would be placed in a dry area within floodplain.

Standard Operating Procedures and Mitigation Measures

The standard operating procedures and mitigation measures that apply to Exhibit D are the same procedures and measures listed at the end of Exhibit C. Please refer to Exhibit C for these procedures and measures.

**TABLE D-1
MAMMAL SPECIES THAT MAY OCCUR IN THE VICINITY OF THE PROPOSED PROJECT**

| Common Name | Scientific Name | Habitat |
|------------------------------|---|---|
| Desert shrew | <i>Notiosorex crawfordi</i> | Any area with ample ground cover including plant debris, trash, and lumber |
| California leaf-nosed bat | <i>Macrotus californicus</i> | Sonoran desertscrub with caves and mines |
| Lesser long-nosed bat | <i>Leptonycteris cursoae yerbabuena</i> | Desertscrub with agave and columnar cacti present as food plants |
| Yuma myotis | <i>Myotis yumanensis</i> | Areas with rivers, ponds, canals, or other permanent water |
| Cave myotis | <i>Myotis velifer</i> | Desertscrub with caves, mines, or bridges and water nearby |
| California myotis | <i>Myotis californicus</i> | Desertscrub with rock faces containing crevices, occasionally caves and mines |
| Western pipistrelle | <i>Pipistrellus hesperus</i> | Areas with canyon walls or cliff faces for roosting, streambeds, and tanks for foraging |
| Big brown bat | <i>Eptesicus fuscus</i> | Wooded areas, desertscrub |
| Southern yellow bat | <i>Lasiurus ega</i> | Areas with large trees, especially fan palms (<i>Washingtonia</i>) |
| Spotted bat | <i>Euderma maculatum</i> | Uneven rocky cliffs near a riparian area |
| Townsend's big-eared bat | <i>Plecotus townsendii</i> | Areas with caves or mines, structures for night roosts |
| Pallid bat | <i>Antrozous pallidus</i> | Desertscrub with caves, mine, cliffs, bridges, or other structures for roosts |
| Brazilian free-tailed bat | <i>Tadarida brasiliensis</i> | Desertscrub and foothills with mines, caves, bridges or old buildings |
| Pocketed free-tailed bat | <i>Tadarida femorosacca</i> | Rocky cliffs and slopes, structures |
| Big free-tailed bat | <i>Tadarida macrotis</i> | Rocky cliffs with crevices |
| Western mastiff bat | <i>Eumops perotis</i> | Rocky cliffs with crevices or shallow caves |
| Desert cottontail | <i>Sylvilagus audubonii</i> | Desertscrub, semi-desert grassland |
| Black-tailed jack rabbit | <i>Lepus californicus</i> | Desertscrub and other areas with open ground cover |
| Harris' antelope squirrel | <i>Ammospermophilus harrisi</i> | Rocky areas of creosote bush/saltbush/bursage |
| Rock squirrel | <i>Spermophilus variegatus</i> | Rocky areas above 1,600 feet |
| Round-tailed ground squirrel | <i>Spermophilus tereticaudus</i> | Creosote bush/saltbush desert with sandy or gravelly soil |
| Botta's pocket gopher | <i>Thomomys bottae</i> | Any area with soil suitable for digging burrows |
| Little pocket mouse | <i>Perognathus longimembris</i> | Sandy or gravelly soils in broken or rolling country |
| Arizona pocket mouse | <i>Perognathus amplus</i> | Desertscrub |
| Rock pocket mouse | <i>Chaetodipus intermedius</i> | Rocky areas of desertscrub |
| Desert pocket mouse | <i>Chaetodipus penicillatus</i> | Sandy areas of desertscrub with sparse vegetation |
| Bailey's pocket mouse | <i>Chaetodipus baileyi</i> | Flats and lower slope areas of desertscrub |
| Merriam's kangaroo rat | <i>Dipodomys merriami</i> | Sandy areas of desertscrub |
| Desert kangaroo rat | <i>Dipodomys deserti</i> | Areas with deep sandy soil |
| Plains harvest mouse | <i>Reithrodontomys montanus</i> | Desertscrub or chaparral |
| Western harvest mouse | <i>Reithrodontomys megalotis</i> | Desertscrub or chaparral |

**TABLE D-1
MAMMAL SPECIES THAT MAY OCCUR IN THE VICINITY OF THE PROPOSED PROJECT**

| Common Name | Scientific Name | Habitat |
|----------------------------|---------------------------------|--|
| Cactus mouse | <i>Peromyscus eremicus</i> | Desertscrub, rocky areas, chaparral |
| Deer mouse | <i>Peromyscus maniculatus</i> | Coniferous or riparian woodland, desertscrub adjacent to canals or intermittent creeks |
| Southern grasshopper mouse | <i>Onychomys torridus</i> | Desertscrub or semi-desert grassland with compact soil |
| Arizona cotton rat | <i>Sigmodon arizonae</i> | Mesquite scrub and weedy areas along canals and washes |
| White-throated wood rat | <i>Neotoma albigula</i> | Areas below the conifer belt, especially with <i>Opuntia</i> or paloverde |
| Desert wood rat | <i>Neotoma lepida</i> | Desertscrub |
| Muskrat | <i>Ondatra zibethicus</i> | Irrigation canals associated with the Gila River |
| House mouse | <i>Mus musculus</i> | Weedy areas and cultivated fields, usually near human habitation |
| Coyote | <i>Canis latrans</i> | Cosmopolitan, from spruce forest to low desert |
| Kit fox | <i>Vulpes macrotis</i> | Desertscrub and desert grassland with sandy or softer clay soils |
| Gray fox | <i>Urocyon cinereoargenteus</i> | Open desertscrub, chaparral, lower elevation woodland |
| Raccoon | <i>Procyon lotor</i> | Areas with permanent water |
| Coati | <i>Nasua narica</i> | Canyons with a mixture of oaks and pines, shrubby woodland, or grassland and shrubs, may move through desert areas |
| Ringtail | <i>Bassariscus astutus</i> | Steep rocky areas near water |
| Badger | <i>Taxidea taxus</i> | Flats and drainages adjacent to mountains, grasslands |
| Western spotted skunk | <i>Spilogale gracilis</i> | Low and middle elevations, often in rocky areas or around human habitation |
| Striped skunk | <i>Mephitis mephitis</i> | From spruce/fir belt to sea level, usually near permanent water |
| Mountain lion | <i>Puma concolor</i> | Rocky or mountainous areas, especially with many deer |
| Bobcat | <i>Felis rufus</i> | Rocky upland areas interspersed with open desert, grassland or woodland |
| Collared peccary | <i>Tayassu tajacu</i> | Desertscrub, especially in thickets along creeks and old streambeds |
| Mule deer | <i>Odocoileus hemionus</i> | Pine forest, oak woodland, chaparral, upland desert |

Source: Hoffmeister 1986

| TABLE D-2 BIRD SPECIES THAT MAY OCCUR IN THE VICINITY OF THE PROPOSED PROJECT | | |
|--|---------------------------------------|---|
| Common Name | Scientific Name | Habitat |
| Common loon | <i>Gavia immer</i> | Lakes, ponds, and aqueducts |
| Pied-billed grebe | <i>Podilymbus podiceps</i> | Lakes, ponds, streams, and canals |
| Eared grebe | <i>Podiceps nigricollis</i> | Lakes and ponds |
| Western grebe | <i>Aechmophorus occidentalis</i> | Lakes, ponds, and lagoons |
| Double-crested cormorant | <i>Phalacrocorax auritus</i> | Lakes, ponds, streams, and aqueducts |
| Western least bittern | <i>Ixobrychus exilis hesperis</i> | Marshy areas of emergent vegetation |
| Great blue heron | <i>Ardea herodias</i> | Lakes, ponds, streams, canals, and marshes |
| Great egret | <i>Ardea alba</i> | Ponds, streams, and marshes |
| Snowy egret | <i>Egretta thula</i> | Ponds, streams, and marshes |
| Green heron | <i>Butorides virescens</i> | Lakes, ponds, streams, marshes, and canals |
| Black-crowned night heron | <i>Nycticorax nycticorax</i> | Lakes, ponds, marshes, and streams |
| White-faced ibis | <i>Plegadis chihi</i> | Lakes, ponds, streams, marshes, and fields |
| Canada goose | <i>Branta canadensis</i> | Lakes, ponds, and fields |
| Gadwall | <i>Anas strepera</i> | Lakes, ponds, and streams |
| American wigeon | <i>Anas americana</i> | Lakes, ponds, and streams |
| Mallard | <i>Anas platyrhynchos</i> | Lakes, ponds, streams, and canals |
| Blue-winged teal | <i>Anas discors</i> | Ponds |
| Cinnamon teal | <i>Anas cyanoptera</i> | Ponds, streams, and canals |
| Northern shoveler | <i>Anas clypeata</i> | Lakes, ponds, and streams |
| Northern pintail | <i>Anas acuta</i> | Lakes, ponds, and streams |
| Green-winged teal | <i>Anas crecca</i> | Lakes, ponds, and streams |
| Redhead | <i>Aythya americana</i> | Lakes and ponds |
| Ring-necked duck | <i>Aythya collaris</i> | Lakes and ponds |
| Lesser scaup | <i>Aythya affinis</i> | Lakes and ponds |
| Bufflehead | <i>Bucephala albeola</i> | Lakes, ponds, and streams |
| Ruddy duck | <i>Oxyura jamaicensis</i> | Lakes and ponds |
| Turkey vulture | <i>Cathartes aura</i> | Open country, woodlands, farms |
| Osprey | <i>Pandion haliaetus</i> | Lakes and streams |
| Bald eagle | <i>Haliaeetus leucocephalus</i> | Lakes and rivers |
| Northern harrier | <i>Circus cyaneus</i> | Wetlands, open fields |
| Sharp-shinned hawk | <i>Accipiter striatus</i> | Generally distributed |
| Cooper's hawk | <i>Accipiter cooperii</i> | Broken woodlands or streamside groves |
| Harris's hawk | <i>Parabuteo unicinctus</i> | Semiarid woodland, brushland |
| Swainson's hawk | <i>Buteo swainsoni</i> | Fields and desert |
| Red-tailed hawk | <i>Buteo jamaicensis</i> | Plains, prairie groves, desert |
| Ferruginous hawk | <i>Buteo regalis</i> | Dry, open country |
| American kestrel | <i>Falco sparverius</i> | Open country, cities |
| Prairie falcon | <i>Falco mexicanus</i> | Dry, open country, prairies |
| Peregrine falcon | <i>Falco peregrinus</i> | Cliffs, generally distributed, tops of tall urban buildings |
| Gambel's quail | <i>Callipepla gambelii</i> | Desert scrublands and thickets |
| Yuma clapper rail | <i>Rallus longirostris yumanensis</i> | Cattail marshes |
| Common moorhen | <i>Gallinula chloropus</i> | Streams, marshes, and ponds |

| TABLE D-2 BIRD SPECIES THAT MAY OCCUR IN THE VICINITY OF THE PROPOSED PROJECT | | |
|--|---|---|
| Common Name | Scientific Name | Habitat |
| American coot | <i>Fulica americana</i> | Lakes, ponds, streams, and marshes |
| Killdeer | <i>Charadrius vociferus</i> | Ponds, streams, and fields |
| Greater yellowlegs | <i>Tringa melanoleuca</i> | Lakes, ponds, streams, and flooded fields |
| Spotted sandpiper | <i>Actitis macularia</i> | Lakes, ponds, streams, and canals |
| Western sandpiper | <i>Calidris mauri</i> | Ponds and streams |
| Least sandpiper | <i>Calidris minutilla</i> | Ponds and streams |
| Long-billed dowitcher | <i>Limnodromus scolopaceus</i> | Ponds and streams |
| Common snipe | <i>Gallinago gallinago</i> | Ponds, marshes, streams, and wet fields |
| Wilson's phalarope | <i>Phalaropus tricolor</i> | Lakes and ponds |
| Ring-billed gull | <i>Larus delawarensis</i> | Lakes, ponds, and streams |
| Rock dove | <i>Columba livia</i> | Parks, fields, urban settings |
| White-winged dove | <i>Zenaida asiatica</i> | Dense mesquite, mature citrus groves, riparian woodlands, saguaro-paloverde deserts |
| Mourning dove | <i>Zenaida macroura</i> | Wide variety of habitats |
| Inca dove | <i>Columbina inca</i> | Near human habitations |
| Common ground dove | <i>Columbina passerina</i> | Fields and hedgerows |
| Western yellow-billed cuckoo | <i>Coccyzus americanus occidentalis</i> | Riparian areas |
| Greater roadrunner | <i>Geococcyx californianus</i> | Scrub desert and mesquite groves, less common in chaparral and oak woodland |
| Barn owl | <i>Tyto alba</i> | Dark cavities in city and farm buildings, cliffs, trees |
| Western screech owl | <i>Otus kennicottii</i> | Open woodlands, streamside groves, deserts, suburban areas |
| Great horned owl | <i>Bubo virginianus</i> | Common in wide variety of habitats |
| Cactus ferruginous pygmy-owl | <i>Glaucidium brasilianum cactorum</i> | Saguaro deserts, woodlands |
| Elf owl | <i>Micrathene whitneyi</i> | Desert lowlands, canyons, foothills |
| Burrowing owl | <i>Athene cunicularia</i> | Open country, golf courses, airports |
| Lesser nighthawk | <i>Chordeiles acutipennis</i> | Dry, open country, scrubland, desert |
| Common poorwill | <i>Phalaenoptilus nuttallii</i> | Sagebrush and chaparral slopes |
| White-throated swift | <i>Aeronautes saxatalis</i> | Mountains, canyons, and cliffs |
| Black-chinned hummingbird | <i>Archilochus alexandri</i> | Lowlands and low mountains |
| Anna's hummingbird | <i>Calypte anna</i> | Coastal lowlands, mountains, deserts |
| Costa's hummingbird | <i>Calypte costae</i> | Desert washes, dry chaparral |
| Rufous hummingbird | <i>Selasphorus rufus</i> | Suburban and riparian areas |
| Belted kingfisher | <i>Ceryle alcyon</i> | Rivers and brooks, ponds and lakes, estuaries |
| Gila woodpecker | <i>Melanerpes uropygialis</i> | Towns, scrub desert, cactus country, streamside woods |
| Ladder-backed woodpecker | <i>Picoides scalaris</i> | Dry brushlands, mesquite and cactus country, towns and rural areas |
| Northern flicker | <i>Colaptes auratus</i> | Open woodlands, suburban areas |
| Gilded flicker | <i>Colaptes chrysoides</i> | Low desert woodlands, favors saguaro |
| Western wood-pewee | <i>Contopus sordidulus</i> | Riparian areas, wooded habitats, including suburban areas |
| Southwestern willow flycatcher | <i>Empidonax traillii extimus</i> | Brushy habitats in wet areas |
| Pacific-slope flycatcher | <i>Empidonax difficilis</i> | Migrant through lowlands |

**TABLE D-2
BIRD SPECIES THAT MAY OCCUR IN THE VICINITY OF THE PROPOSED PROJECT**

| Common Name | Scientific Name | Habitat |
|-------------------------------|--|---|
| Black phoebe | <i>Sayornis nigricans</i> | Woodlands, parks, suburbs, prefers to nest near water |
| Say's phoebe | <i>Sayornis saya</i> | Dry, open areas, canyons, cliffs |
| Vermilion flycatcher | <i>Pyrocephalus rubinus</i> | Streamside shrubs, bottomlands, near small wooded ponds |
| Ash-throated flycatcher | <i>Myiarchus cinerascens</i> | Wide variety of habitats |
| Brown-crested flycatcher | <i>Myiarchus tyrannulus</i> | Saguaro desert, river groves, lower mountain woodlands |
| Western kingbird | <i>Tyrannus verticalis</i> | Dry, open country |
| Cassin's kingbird | <i>Tyrannus vociferans</i> | Varied habitats |
| Common raven | <i>Corvus corax</i> | Mountains, deserts, coastal areas |
| Bell's vireo | <i>Vireo bellii</i> | Riparian areas, especially in mesquite trees |
| Warbling vireo | <i>Vireo gilvus</i> | Deciduous woods |
| Horned lark | <i>Eremophila alpestris</i> | Dirt fields, gravel ridges, shores |
| Tree swallow | <i>Tachycineta bicolor</i> | Streams, ponds, and lakes |
| Violet-green swallow | <i>Tachycineta thalassina</i> | Riparian areas, streams, ponds, and lakes |
| Northern rough-winged swallow | <i>Stelgidopteryx serripennis</i> | Banks of streams and canals, streams, ponds, and lakes |
| Cliff swallow | <i>Petrochelidon pyrrhonota</i> | Lakeside, cliffs, and canals; nesting under nearby bridges, buildings, and other overhangs; streams and ponds |
| Barn swallow | <i>Hirundo rustica</i> | Streams, ponds, lakes, and agricultural areas |
| Verdin | <i>Auriparus flaviceps</i> | Southwestern desert |
| Cactus wren | <i>Campylorhynchus brunneicapillus</i> | Cholla cactus habitat |
| Rock wren | <i>Salpinctes obsoletus</i> | Arid and semiarid habitats |
| Canyon wren | <i>Catherpes mexicanus</i> | Canyons and cliffs, often near water |
| Bewick's wren | <i>Thryomanes bewickii</i> | Wooded riparian areas |
| House wren | <i>Troglodytes aedon</i> | Dense, brushy areas |
| Ruby-crowned kinglet | <i>Regulus calendula</i> | Woodlands, thickets |
| Black-tailed gnatcatcher | <i>Polioptila melanura</i> | Desert, especially washes |
| Western bluebird | <i>Sialia mexicana</i> | Woodlands, farmlands, orchards, deserts, especially in mesquite-mistletoe groves |
| American robin | <i>Turdus migratorius</i> | Generally distributed |
| Northern mockingbird | <i>Mimus polyglottos</i> | Variety of habitats |
| Bendire's thrasher | <i>Toxostoma bendirei</i> | Open farmlands, grasslands, brushy desert |
| Curve-billed thrasher | <i>Toxostoma curvirostre</i> | Cholla deserts and suburban areas |
| Crissal thrasher | <i>Toxostoma crissale</i> | Riparian areas and washes |
| American pipit | <i>Anthus rubescens</i> | Fields, ponds, pastures, riparian areas |
| Cedar waxwing | <i>Bombycilla cedrorum</i> | Riparian and suburban areas |
| Phainopepla | <i>Phainopepla nitens</i> | Riparian areas, especially in trees with mistletoe |
| Loggerhead shrike | <i>Lanius ludovicianus</i> | Generally distributed |
| European starling | <i>Sturnus vulgaris</i> | Generally distributed |
| Orange-crowned warbler | <i>Vermivora celata</i> | Riparian and suburban areas in lowlands |
| Lucy's warbler | <i>Vermivora luciae</i> | Mesquites and cottonwoods along watercourses |
| Yellow warbler | <i>Dendroica petechia</i> | Wet habitats, open woodlands, gardens, orchards |
| Yellow-rumped warbler | <i>Dendroica coronata</i> | Riparian and suburban areas |
| Townsend's warbler | <i>Dendroica townsendi</i> | Lowland riparian and suburban areas |
| Common yellowthroat | <i>Geothlypis trichas</i> | Marshes and suburban areas |
| Wilson's warbler | <i>Wilsonia pusilla</i> | Dense, moist woodlands, bogs, streamside tangles |
| Yellow-breasted chat | <i>Icteria virens</i> | Dense thickets and brush |

| TABLE D-2 BIRD SPECIES THAT MAY OCCUR IN THE VICINITY OF THE PROPOSED PROJECT | | |
|--|--------------------------------------|---|
| Common Name | Scientific Name | Habitat |
| Summer tanager | <i>Piranga rubra</i> | Riparian areas |
| Western tanager | <i>Piranga ludoviciana</i> | Transient in lowlands |
| Green-tailed towhee | <i>Pipilo chlorurus</i> | Brushy areas, riparian, and suburban areas |
| Spotted towhee | <i>Pipilo maculatus</i> | Brushy areas, riparian and suburban areas |
| Canyon towhee | <i>Pipilo fuscus</i> | Sonoran Desertscrub |
| Abert's towhee | <i>Pipilo aberti</i> | Riparian areas, suburban areas |
| Chipping sparrow | <i>Spizella pallida</i> | Brushy edges and riparian areas |
| Brewer's sparrow | <i>Spizella breweri</i> | Deserts, field edges, and suburban areas |
| Black-chinned sparrow | <i>Spizella atrogularis</i> | Rocky hillsides in Sonoran Desertscrub |
| Vesper sparrow | <i>Pooecetes gramineus</i> | Open weedy fields, roadsides, and grassy areas |
| Lark sparrow | <i>Chondestes grammacus</i> | Brushy, weedy areas, riparian areas, and field edges |
| Black-throated sparrow | <i>Amphispiza bilineata</i> | Desert scrub |
| Lark bunting | <i>Calamospiza melanocorys</i> | Brushy desert and field edges |
| Savannah sparrow | <i>Passerculus sandwichensis</i> | Open fields, roadsides, and grassy areas |
| Song sparrow | <i>Melospiza melodia</i> | Riparian areas, marshes, and vegetated lakesides |
| Lincoln's sparrow | <i>Melospiza lincolnii</i> | Riparian areas, marshes, brushy fields, and hedgerows |
| White-crowned sparrow | <i>Zonotrichia leucophrys</i> | Suburban, riparian, and other brushy areas |
| Dark-eyed junco | <i>Junco hyemalis</i> | Desertscrub |
| Black-headed grosbeak | <i>Pheucticus melanocephalus</i> | Transient in lowlands |
| Northern cardinal | <i>Cardinalis cardinalis</i> | Woodland edges, swamps, streamside thickets, suburban gardens |
| Pyrrhuloxia | <i>Cardinalis sinuatus</i> | Thorny brush, mesquite thickets, desert, woodland edges, ranchlands |
| Blue grosbeak | <i>Guiraca caerulea</i> | Riparian areas |
| Lazuli bunting | <i>Passerina amoena</i> | Weedy and shrubby areas along irrigation ditches and other bodies of water and suburban areas |
| Red-winged blackbird | <i>Agelaius phoeniceus</i> | Riparian areas, irrigated fields, marshes, and feedlots |
| Western meadowlark | <i>Sturnella neglecta</i> | Fields and other open areas, deserts |
| Yellow-headed blackbird | <i>Xanthocephalus xanthocephalus</i> | Marshes, fields, feedlots |
| Brewer's blackbird | <i>Euphagus cyanocephalus</i> | Fields, farmyards, feedlots, ponds, and riparian areas |
| Great-tailed grackle | <i>Quiscalus mexicanus</i> | Riparian areas, marshes, ponds, farmyards, and suburban areas |
| Bronzed cowbird | <i>Molothrus aeneus</i> | Riparian and suburban areas |
| Brown-headed cowbird | <i>Molothrus ater</i> | Suburbs and agricultural areas |
| Hooded oriole | <i>Icterus cucullatus</i> | Riparian and suburban areas |
| Bullock's oriole | <i>Icterus bullockii</i> | Riparian areas |
| House finch | <i>Carpodacus mexicanus</i> | Riparian and suburban areas, farmland, desert |
| Lesser goldfinch | <i>Carduelis psaltria</i> | Riparian areas |
| House sparrow | <i>Passer domesticus</i> | Associated with human presence |

Sources: National Geographic Society 1999; Witzeman, et al. 1997

**TABLE D-3
REPTILE AND AMPHIBIAN SPECIES THAT MAY OCCUR IN THE
VICINITY OF THE PROPOSED PROJECT**

| Common Name | Scientific Name | Habitat |
|-----------------------------|----------------------------------|--|
| Sonoran desert toad | <i>Bufo alvarius</i> | Ranges from arid mesquite-creosote bush lowlands and arid grasslands into the oak-sycamore-walnut groves in mountain canyons, often found near permanent water of springs, reservoirs, canals, and streams, but also frequents temporary pools |
| Great plains toad | <i>Bufo cognatus</i> | Inhabits prairies or deserts, often breeding after heavy rains in summer in shallow temporary pools or quiet water of streams, marshes, irrigation ditches, and flooded fields, frequents creosote bush desert, mesquite woodland, and sagebrush plains |
| Red-spotted toad | <i>Bufo punctatus</i> | Desert streams and oases, open grassland and scrubland, oak woodland, rocky canyons and arroyos, in crevices among rocks for shelter, breeds in rain pools, reservoirs, and temporary pools of intermittent streams |
| Southwestern woodhouse toad | <i>Bufo woodhousei australis</i> | Grassland, sagebrush flats, woods, desert streams, valleys, floodplains, farms, and city backyards, in sandy areas, breed in quiet water of streams, marshes, lakes, freshwater pools, and irrigation ditches |
| Canyon treefrog | <i>Hyla arenicolor</i> | Huddles in niches on sides of boulders or stream banks, favors intermittent or permanent streams with quiet pools that have a hard rocky bottom, frequents arroyos in semi-arid grassland, streams in piñon-juniper and pine-oak woodlands, and tropical scrub forest |
| Couch spadefoot | <i>Scaphiopus couchii</i> | Frequents shortgrass plains, mesquite savannah, creosote bush desert, thornforest, tropical deciduous forest, and other areas of low rainfall |
| Southern spadefoot | <i>Spea multiplicata</i> | Frequents desert grassland, shortgrass plains, creosote bush and sagebrush desert, mixed grassland and chaparral, piñon-juniper and pine-oak woodlands, and open pine forests, soil is often sandy or gravelly |
| Bullfrog | <i>Rana catesbeiana</i> | Highly aquatic, remaining in or near permanent water, frequents prairie, woodland, chaparral, forests, desert oases, and farmland, enters marshes, ponds, lakes, reservoirs, and streams – usually quiet water with thick growth of cattails or other aquatic vegetation |
| Lowland leopard frog | <i>Rana yavapaiensis</i> | Frequents desert, grassland, oak and oak-pine woodland, in permanent pools of foothill streams, overflow ponds and side channels of major rivers, permanent springs, and in drier areas – more or less permanent stock tanks |
| Sonoran mud turtle | <i>Kinosternon sonoriense</i> | Stream-dwelling turtle that frequents springs, creeks, ponds, and the water holes of intermittent streams, inhabits woodlands, or oaks and piñon-juniper or forests of ponderosa pine and Douglas fir, also occasionally inhabits foothill grasslands and desert |
| Sonoran desert tortoise | <i>Gopherus agassizii</i> | Completely terrestrial desert species requiring firm but not hard ground for construction of burrows, frequent desert oases, riverbanks, washes, and rocky slopes |

**TABLE D-3
REPTILE AND AMPHIBIAN SPECIES THAT MAY OCCUR IN THE
VICINITY OF THE PROPOSED PROJECT**

| Common Name | Scientific Name | Habitat |
|---------------------------|---------------------------------------|--|
| Spiny softshell | <i>Trionyx spiniferus</i> | River turtle attracted to quiet water with bottom of mud, sand, or gravel, also enters ponds, canals, and irrigation ditches |
| Eastern collared lizard | <i>Crotaphytus collaris</i> | Rock-dwelling lizard that frequents canyons, rocky gullies, limestone ledges, mountain slopes, and boulder-strewn alluvial fans, usually where vegetation is sparse |
| Long-nosed leopard lizard | <i>Gambelia wislizenii wislizenii</i> | Arid and semiarid plains grown to bunch grass, alkali bush, sagebrush, creosote bush, or other scattered low plants, ground may be hardpan, gravel, or sand |
| Western banded gecko | <i>Coleonyx variegatus</i> | Variety of habitats, often associated with rocks |
| Gila monster | <i>Heloderma suspectum</i> | Canyon bottoms and washes in desert or desert grassland |
| Desert iguana | <i>Dipsosaurus dorsalis</i> | Creosote bush desert to subtropical scrub, most common in sandy habitats but also occurs along rocky streambeds, on bajadas, silty floodplains, and on clay soils |
| Common chuckwalla | <i>Sauromalus obesus</i> | Rock-dwelling, herbivorous lizard, widely distributed in the desert |
| Zebra-tailed lizard | <i>Callisaurus draconoides</i> | Frequents washes, desert pavements of small rocks, and hardpan |
| Desert horned lizard | <i>Phrynosoma platyrhinos</i> | Arid lands on sandy flats, alluvial fans, along washes, and at the edges of dunes, associated with creosote bush, saltbush, greasewood, cactus, and ocotillo in the desert |
| Regal horned lizard | <i>Phrynosoma solare</i> | Frequents rocky and gravelly habitats of the arid and semiarid plains, hills, and lower slopes of mountains, often with cactus, mesquite, and creosote bush |
| Desert spiny lizard | <i>Sceloporus magister</i> | Arid and semiarid regions on plains and lower slopes of mountains, found in Joshua tree, creosote bush, and shad-scale deserts, mesquite-yucca grassland, juniper and mesquite woodland, subtropical thornscrub, and along rivers grown to willows and cottonwoods |
| Brush lizard | <i>Urosaurus graciosus</i> | Desert species, frequents areas of loose sand and scattered bushes and trees, creosote bush, burrobush, galleta grass, catclaw, mesquite, and paloverde |
| Tree lizard | <i>Urosaurus ornatus</i> | Frequents mesquite, oak, pine, juniper, alder, cottonwood, and non-native trees such as tamarisk and rough-bark eucalyptus, but also may occur in treeless areas, especially attracted to river courses |
| Side-blotched lizard | <i>Uta stansburiana</i> | Arid or semiarid regions with sand, rock, hardpan, or loam with grass, shrubs, and scattered trees, often found along sandy washes |
| Western whiptail | <i>Cnemidophorus tigris</i> | Inhabits deserts and semiarid habitats, usually where plants are sparse, also found in woodland, streamside growth, and in the warmer, drier parts of forests |
| Banded sand snake | <i>Chilomeniscus cinctus</i> | Loose soils in low desert or upland |
| Rosy boa | <i>Charina trivirgata</i> | Rocky shrublands and desert, particularly near water source |
| Western glossy snake | <i>Arizona occidentalis</i> | Below 6,000 feet in sparsely vegetated woodland, chaparral, grassland or desertscrub with loose soil |

**TABLE D-3
REPTILE AND AMPHIBIAN SPECIES THAT MAY OCCUR IN THE
VICINITY OF THE PROPOSED PROJECT**

| Common Name | Scientific Name | Habitat |
|------------------------------------|-----------------------------------|--|
| Western shovel-nosed snake | <i>Chionactis occipitalis</i> | Sparsely vegetated desert areas with pockets of loose soil |
| Night snake | <i>Hypsiglena torquata</i> | Various upland and desert habitats used |
| Coachwhip | <i>Masticophis flagellum</i> | Sparsely vegetated areas from juniper woodland to low desert |
| Saddled leaf-nosed snake | <i>Phyllorhynchus browni</i> | Desertscrub |
| Spotted leaf-nosed snake | <i>Phyllorhynchus descortatus</i> | Open desert with finer loose soils, especially creosote bush (<i>Larrea tridentata</i>) |
| Gopher snake | <i>Pituophis catenifer</i> | Various habitats from mountain to low desert and coastal |
| Long-nosed snake | <i>Rhinocheilus lecontei</i> | Desertscrub, prairie, tropical woodland to 5,500 feet |
| Western patch-nosed snake | <i>Salvadora hexalepis</i> | Piñon-juniper woodland to low deserts on variety of soil types |
| Glossy snake | <i>Arizona elegans</i> | Sandy or loamy open areas – light shrubby to barren desert, sagebrush flats, grassland, chaparral-covered slopes, and woodland |
| Common kingsnake | <i>Lampropeltis getulus</i> | Woodland, swampland, coastal marshes, river bottoms, farmland, prairie, chaparral, and desert |
| Ground snake | <i>Sonora semiannulata</i> | Wide range of habitats in loose soil with some subsurface moisture |
| Southwestern black-headed snake | <i>Tantilla hobartsmithi</i> | In loose soil or plant litter in desert grassland and woodland habitats |
| Black-necked garter snake | <i>Thamnophis cyrtopsis</i> | Pine-fir forest to upland desert and chaparral, generally in the vicinity of a water source |
| Checkered garter snake | <i>Thamnophis marcianus</i> | Low elevation rivers, streams, ponds, and canals, and adjacent areas. |
| Lyre snake | <i>Trimorphodon biscutatus</i> | From oak and juniper woodland to higher elevation desert and grasslands, particularly in rocky areas. |
| Western coral snake | <i>Micruroides euryxanthus</i> | Wide range of arid habitats including grassland, woodland, scrub and agricultural lands, particularly upland desert in washes and river bottoms. |
| Western blind snake | <i>Leptotyphlops humilis</i> | Desertscrub and brush covered hillsides with loose soils |
| Western diamondback rattlesnake | <i>Crotalus atrox</i> | Wide range of habitats below 7,000 feet |
| Sidewinder | <i>Crotalus cerastes</i> | Desert areas with fine loose sand, often near small shrubs |
| Southwestern speckled rattlesnake | <i>Crotalus mitchellii</i> | From juniper woodland to succulent desert, often in rocky areas |
| Black-tailed rattlesnake | <i>Crotalus molossus</i> | Upland desert to pine-oak woodland |
| Mojave rattlesnake | <i>Crotalus scutulatus</i> | Mostly in upland desert and lower mountain slopes |
| Tiger rattlesnake | <i>Crotalus tigris</i> | Rocky desert canyons and foothills |
| Source: Prival 1999; Stebbins 1985 | | |

**TABLE D-4
FISH SPECIES THAT MAY OCCUR IN THE
VICINITY OF THE PROPOSED PROJECT**

| Common Name | Scientific Name | Habitat |
|-------------------------|-------------------------------|--|
| Threadfin shad | <i>Dorosoma petenense</i> | Lakes, ponds, larger rivers, estuaries, canals, and reservoirs; often in moderate current, frequently congregating below swift riffles, in circular eddies, or in open flowing pools |
| Carp | <i>Cyprinus carpio</i> | Streams, natural lakes, and manmade impoundments, over all types of bottoms and in clear or turbid waters |
| Longfin dace | <i>Agosia chrysogaster</i> | Found in shallow runs over sand bottom and in eddies and shallow pools near overhanging banks or other cover, typically in moderate current, rarely in backwaters or deep pools |
| Red shiner | <i>Notropis lutrensis</i> | Wide variety of low gradient habitats, especially in backwaters, creek mouths and medium-sized streams with sand/silt bottoms |
| Fathead minnow | <i>Pimephales promelas</i> | Wide range of habitats from ponds to flowing streams |
| Channel catfish | <i>Ictalurus punctatus</i> | Clear, medium to large rivers with swift currents over sand or gravel-rocky bottoms, may enter brackish waters |
| Black bullhead | <i>Ictalurus melas</i> | Ponds, pools of all sizes in streams and rivers, and in swampy habitats |
| Mosquitofish | <i>Gambusia affinis</i> | Vegetated ponds, lakes, drainage ditches, and backwaters and oxbows of sluggish streams; often in brackish or marine situations |
| Sailfin molly | <i>Poecilia latipinna</i> | Springs, lakes and ponds, rivers and streams, drainage ditches, and salt marshes |
| Largemouth bass | <i>Micropterus salmoides</i> | Clear, quiet waters with aquatic vegetation |
| Green sunfish | <i>Lepomis cyanellus</i> | Varied habitats, usually near cover such as brushy banks, cliffs, or piles of rubble; not normally in brackish water |
| Bluegill | <i>Lepomis macrochirus</i> | Shallow warm lakes, ponds, and slow-flowing rivers and creeks often with abundant aquatic vegetation |
| Black crappie | <i>Pomoxis nigromaculatus</i> | Quiet warm waters, usually associated with abundant aquatic vegetation and sandy to muddy bottoms in large ponds and shallow areas of lakes |
| Mozambique mouthbrooder | <i>Tilapia mossambica</i> | Slow or still, weedy waters; in canals and backwaters |

Source: Lee, et al. 1980; Minckley 1973

REFERENCES CITED

- Hoffmeister, D.F. 1986. Mammals of Arizona. University of Arizona Press, Tucson, Arizona. 602 pp.
- Lee, D.S., C.R. Gilbert, C.H. Hocutt, R.E. Jenkins, D.E. McAllister and J.R. Stauffer, Jr. 1980. Atlas of North American Freshwater Fishes. North Carolina State Museum of Natural History. 854 pp.
- Minckley, W.L. 1973. Fishes of Arizona. Arizona Game and Fish Department, Phoenix. 293 pp.
- National Geographic Society. 1999. Field guide to birds of North America. Third edition. National Geographic Society, Washington, D. C. 480 pp.
- Prival, D.B. 1999. Revised checklist of Arizona reptiles and amphibians. Unpublished list prepared for University of Arizona Herpetology Curriculum. 5 pp.
- Stebbins, R.C. 1985. Western reptiles and amphibians. Houghton Mifflin Company, New York, New York. 336 pp.
- Turner, R.M. and D.E. Brown. 1994. Sonoran Desertscrub. Pages 180-222 *In* D.E. Brown, editor. The Biotic Communities—Southwestern United States and Northwestern Mexico. University of Utah Press, Salt Lake City. 342 pp.
- Witzeman, J.L., S.R. Demaree and E.L. Radke. 1997. Birds of Phoenix and Maricopa County, Arizona. Maricopa Audubon Society, Phoenix, Arizona. 153 pp.

EXHIBIT E
SCENIC AREAS, HISTORIC SITES AND
STRUCTURES, AND ARCHAEOLOGICAL SITES

EXHIBIT E

SCENIC AREAS, HISTORIC SITES AND STRUCTURES, AND ARCHAEOLOGICAL SITES

As stated in Arizona Corporation Commission Rules of Practice and Procedure R-14-3-219:

“Describe any existing scenic areas, historic sites and structures or archaeological sites in the vicinity of the proposed facilities and state the effects, if any, the proposed facilities will have thereon.”

SCENIC AREAS/VISUAL RESOURCES

Overview

The visual resource study was based upon the BLM’s Visual Resource Management System and addresses the potential visual effects of the proposed Project on landscape scenic quality and sensitive viewers.

Existing Conditions

Inventory Methods and Results

Inventory data for visual resources within the study area were collected from existing and future land use plans (see Exhibit A), aerial photography, previous studies, and field review. The visual resource inventory focused on landscape character, determination of scenic quality, identification of sensitive viewers, and viewing conditions within the study area. Data were collected 2 miles on either side of the centerline of the proposed route in order to characterize the visual resources in the study area.

The following paragraphs describe the inventory results for landscape character, landscape scenic quality, and sensitive viewers.

Landscape Character

The proposed Project would be located within the Basin and Range Physiographic province in southwest Arizona (*Landscape Character Types of the National Forests in Arizona and New Mexico* 1989). The topographic character within the general study area can be described as creosote flatlands surrounded by rolling hills with steep mountains. Agricultural fields, while not

crossed by the proposed Project, are located throughout the study area with the majority occurring within the Gila River floodplain.

The predominant vegetation character of the study area is representative of the Lower Sonoran Desert including saguaro, ocotillo, palo verde, ironwood, and creosote. Creosote and bursage are dominant plant species in the southeastern portion of the study area where sand-silt soils are abundant. Xeroriparian washes supporting typical vegetation for this physiographic region occur throughout the area as well. There is a stretch of the Gila River that is perennial supporting primarily tamarisk; however, other types of mesoriparian vegetation does occur in small isolated patches.

Infrastructure/cultural modifications that affect the natural landscape setting include access roads for a 500kV lattice transmission line and gas pipelines located within the BLM designated utility corridor. These features would be paralleled by the proposed Project. Other modifications include agricultural fields in Arlington Valley and scattered throughout the study area. Additional modifications include Union Pacific Railroad, Gillespie Dam and bridge, Arizona State Correctional Facility (prison), and a landfill in the vicinity of State Route 85. Several 12kV distribution lines occur in the northern and southern portions of the study area along roads and agricultural fields. Residential areas occur in the south-central portions of the study area. There are two areas of visual interest, Arlington State Wildlife Area in the northern portion of the study area and a bluff with petroglyphs on the southwestern side of Arlington Valley north of the proposed route. A tree nursery, Desierto Verde, is located in the southeastern portion of the study area.

Landscape Scenic Quality

Scenic Quality Rating Units ("SQRUs") are used by the BLM to describe specific natural landscape types found within the regional landscape. The designations are categorized into three classes—A (outstanding), B (above average), and C (common). The degree of diversity and variety of visual elements (i.e., landform, vegetation, color, etc.) associated with the previously described landscape character were used to derive the SQRUs along the proposed Project.

Approximately 14 miles of the proposed 20 miles would cross Class C landscapes, which are primarily associated with large expanses of homogenous vegetation (creosote) and little, if any, topographical features. Class C landscapes tend to lack color, landform, and visual diversity. Class B landscapes that would be crossed (approximately 4 miles) by the proposed Project are associated with desert washes which exhibit a greater diversity of vegetation than that of the surrounding landscape. Other areas that were designated Class B and not crossed by the proposed Project include agricultural lands, desert hills (central portion of the study area), and the Gila River valley north of Gillespie Dam due its topographic and vegetative diversity. The proposed Project would not cross any Class A landscape types. However, areas of Class A landscape do occur within the general study area and are associated with desert mountains and the Arlington Wildlife Refuge. Due to topographical and vegetative diversity and the occurrence

of water, these landscapes were considered to have high scenic quality. The remaining 2 miles would cross developed land.

Sensitive Viewers and Viewing Conditions

Key Observation Points (KOPs) and their associated viewers were identified through previous studies recently completed for the APS/SRP Southwest Valley Transmission Line Project, data gathered during field inventories, and aerial photograph interpretation. The sensitive viewers were organized into three categories including residential views, recreation views, and transportation views and are described below.

Residential Views

There are a total of 13 residential viewers that occur in the vicinity of the proposed Project. Specifically, four residences occur within 0-½ mile of the proposed Project and would have views of the existing and proposed transmission line. The remaining nine residences would occur within 1 to 2 miles of the proposed Project and their associated views would be partially screened due to the topography of the area. The residences occur in the southeast and central portions of the study area respectively.

Recreation Views

The only public recreation site that occurs in the study area within the vicinity of the proposed Project is the Arlington Wildlife Refuge used, in part, for bird hunting and bird watching. There are no designated trails in this area and any recreation use would be widely dispersed and seasonal (primarily in the river basin) (Hildebrandt 2002) The landscape adjacent to the refuge is highly modified based on the presence of Gillespie Dam, a bridge, expanses of salt cedar, and the existing 500kV transmission line. The southern boundary of the refuge is located approximately ¾ mile north of the proposed Project. Due to these conditions, there would be only intermittent and modified views of the proposed Project.

Transportation Views

There are two main transportation routes that occur within the study area that would have views to the proposed Project: Old U.S. Highway 80 and State Route 85. Old U.S. Highway 80 is a county designated scenic route that is crossed by the proposed Project. Views from this road were considered because of its scenic route designation although many modifications to the landscape are present in this area. The other transportation route, State Route 85, would be crossed by the proposed Project on the eastern side of the study area in a highly modified setting with a landfill, 500kV transmission line, and a prison adjacent to the highway.

Potential Impacts

The visual resources impact assessment evaluated the level of potential change the proposed transmission line and associated switchyard interconnections would have on scenic quality and resulting effects to sensitive viewers. The components of the visual assessment included a visual contrast analysis, identification of impacts, and identification of the resulting levels of visual impact.

The visual impact assessment considered the effects of new structures introduced into the landscape, access and vegetation clearing, and the influence of existing modifications (i.e., existing 500kV transmission line). In general, impacts to sensitive viewers and landscape scenic quality would be minimal due to the siting of the proposed Project in a BLM designated utility corridor adjacent to an existing 500kV transmission line and El Paso gas pipeline. In addition, GBPP has committed that the proposed Project would be constructed using dulled steel structures and non-specular conductors and utilize the existing access roads. Placement of structures would also match the spanning of the existing 500kV transmission line. Following is a discussion on visual contrast evaluation, impacts to scenic quality, impacts to sensitive viewers, and mitigation measures.

Visual Contrast Analysis and Impacts

Visual contrast is a measure of the anticipated changes that may occur with the construction of the proposed Project in specific landscape settings and at varying distances from sensitive viewers. The key factor that contributes to changes in contrast levels affecting scenic quality and sensitive viewers is the introduction of a manmade element in the landscape.

Visual contrast resulting from the proposed Project would be weak because (1) an existing transmission line would be paralleled the entire length, (2) existing access is available on level terrain, (3) other modifications in the landscape are present in the vicinity of the Project, and (4) several mitigation measures have been committed to that will further reduce visual contrasts.

Impacts to Scenic Quality

Minimal impacts to scenic quality of the study area are anticipated. No Class A areas would be affected by the Project. In areas of Class B and C landscapes the proposed Project would parallel an existing 500kV transmission line that is adjacent to an access road and spur roads within a designated utility corridor for the majority of its length resulting in minimal contrasts. Furthermore, GBPP has agreed that any impacts to scenic quality resulting from vegetation removal for temporary access and tower laydown sites would be mitigated through reclamation (re-vegetation) and during construction and post-construction monitoring.

Impacts to Sensitive Viewers

Impacts to sensitive viewers (residences, recreation areas, and travel routes) are anticipated to be minimal due to the presence of the existing 500kV transmission line within their existing viewshed. The use of dulled steel lattice structures similar to the existing 500kV line, matching structure type and placement, and using existing access would further reduce impacts to sensitive viewers.

Visual impacts to existing residential viewers are expected to be minimal. Although the distance of the proposed Project is within ½ mile of four residences, impacts would be reduced because the proposed action would occur on the north side of the existing transmission line opposite of the residences. The remaining existing residences have limited and modified views to the proposed Project; therefore, impacts would be minimal. Minimal impacts were also identified for viewers associated with the planned conceptual Spring Mountain Ski Ranch because the proposed Project would occur approximately 1 mile from the viewers and be located on the north side of the existing transmission line resulting in reduced visibility and contrast.

Visual impacts to the Arlington Wildlife Refuge are not anticipated because the Gillespie Dam and bridge would modify views of the proposed Project, and there are no designated trails located within the refuge, i.e., sensitive viewpoints.

Impacts to viewers from the two travel routes, Old U.S. Highway 80 and State Route 85, would be minimal because (1) the proposed Project would parallel an existing 500kV transmission line, (2) short view durations, and (3) there is existing landscape modification in the vicinity of the road crossings. In addition, the vast majority of the proposed action would be well out of view from motorists using the two travel routes. Project contrast to Old U.S. Highway 80 would be reduced because the existing landscape is already highly modified by an existing 500kV transmission line, a lattice bridge, and Gillespie Dam. Impacts to State Route 85 would be minimal because the proposed action would occur perpendicular to the highway and cross at only one point adjacent to the existing line. The natural landscape setting where the proposed Project would cross State Route 85 has been highly modified with the occurrence of an existing 500kV transmission line, landfill, prison, and tree nursery, further reducing potential Project contrast.

Standard Operating Procedures and Mitigation Measures

The following list includes standard operating procedures and mitigation measures that have been committed to by GBPP to reduce the visual impacts for the Project:

- The Applicant shall use dulled steel structures and non-specular and dulled conductors to reduce the contrast and visibility of proposed Project.
- The Applicant shall match existing structure type to reduce overall Project contrast.

- The Applicant shall use existing access roads along the Palo Verde-Kyrene line for construction and maintenance access and only build spur roads for access to new structures.

HISTORIC SITES AND STRUCTURES AND ARCHAEOLOGICAL SITES

Overview

A cultural resources investigation was initiated to determine whether any historic sites and structures or archaeological sites are in the vicinity of the proposed Hassayampa to Jojoba 500kV transmission line, and how they might be affected by the construction of the line. The analysis was based on records review at a number of agencies and research institutions, including the following:

- Arizona State Historic Preservation Office
- Arizona State Museum
- Department of Anthropology at Arizona State University
- Museum of Northern Arizona
- State and Phoenix Field Offices of the BLM

The goal of the review was to identify any prior cultural resource surveys and recorded archaeological and historical sites within approximately 1 mile of the Project area.

In addition, a field survey of approximately 874 acres along the proposed transmission line corridor was conducted from May 16 to May 24, 2002. The surveyed areas included:

- A 400-foot-wide, 9.2-mile-long (447 acres) corridor immediately west and south of the existing Palo Verde-Kyrene 500kV transmission line, starting at a distance of 100 feet from the line, from the Hassayampa Switchyard to near the western edge of the Gila River.
- Two 200-foot-wide, 8.3-mile-long (402 acres) corridors immediately north and south of the existing Palo Verde-Kyrene 500kV transmission line, starting at a distance of 100 feet from the line, from the eastern edge of the Gila River to the Jojoba Switchyard.
- A 400-foot-wide, 0.5-mile-long (24 acres) corridor immediately north of the existing Palo Verde-Kyrene 500kV transmission line, starting at a distance of 100 feet from the line, and west of the Gila River. This is the area where the proposed line will shift to the north to the existing structures and line.
- New spur roads had not been identified at the time of this survey. Any new spur roads in unsurveyed areas would be surveyed once they have been identified.

This exhibit summarizes the results of the records review and field survey, which are being fully documented in a report to support the BLM NEPA process for the Project and compliance with Section 106 of the National Historic Preservation Act.

Existing Conditions

The records review identified information compiled from 39 prior cultural resource studies conducted within 1 mile of the Project area. These studies were undertaken in support of a variety of projects, including construction of the existing Palo Verde-Kyrene 500kV transmission line that the proposed route would parallel and construction of the proposed Hassayampa and Jojoba switchyards, the end points of the proposed line.

A total of 37 archaeological and historical sites have been recorded within 1 mile of the Project area:

- nine prehistoric artifact scatters
- six historic artifact scatters or dumps
- five historic homesteads or labor camps
- five prehistoric petroglyph loci
- four prehistoric rock alignments or trails
- four historic canals or dams
- three historic roads or bridges
- one historic railroad

Within 1 mile of the Project area, 16 of the historic properties are either listed or considered eligible for inclusion on the National and State Registers of Historic Places and 14 of the properties are not Register eligible. An additional seven of the properties are of unknown status.

The field survey resulted in the identification of 11 historic and archaeological sites within or immediately adjacent to the proposed transmission line corridor (Table E-1), including 1 newly identified archaeological site (AZ T:13:125 [ASM]) and 10 previously identified historic and archaeological sites.

The report summarizing the results of the field survey is being prepared; therefore, the significance of the sites within the Project area and the potential impacts to them are being assessed in consultation with the BLM and ASLD. It is anticipated that direct impacts to many of these sites can be avoided by careful placement of the new structures. However, the proposed line must cross the historic Southern Pacific Railroad, Gila Bend Canal, Enterprise Canal, and Old U.S. Highway 80 and associated features.

**TABLE E-1
SUMMARY OF ARCHAEOLOGICAL AND HISTORICAL SITES
WITHIN THE PROJECT AREA**

| | Site Designation | Description | Significance/ Eligibility ¹ | Potential Impacts ² |
|----|--|---|--|---|
| 1 | AZ T:9:5 (ASM) | Prehistoric ceramic and lithic scatter | Recommended eligible, Criterion D | Will be spanned, if possible |
| 2 | AZ T:9:60 (ASM) | Historic trash dump and low-density artifact scatter | Recommended not eligible | Will be spanned, if possible |
| 3 | AZ T:9:63 (ASM) | Historic abandoned road segment | Recommended not eligible | Will be spanned, if possible |
| 4 | AZ T:10:84 (ASM) [AZ Z: 2:40 (ASM)]: Southern Pacific Railroad | In-use historic Phoenix main line alignment of the former Southern Pacific Railroad | Recommended eligible, Criterion A; however, contributing and non-contributing elements not specified | Will be crossed adjacent to existing transmission lines |
| 5 | AZ T:13:18 (ASM) Gillespie Dam Site | Prehistoric artifact scatter associated with several possible thermal features; the site also contains a historic artifact scatter associated with possible historic irrigation canal | Recommended potentially eligible, Criterion D; limited data recovery studies conducted at site | Will be spanned, if possible |
| 6 | AZ T:13:21 (ASM) | Prehistoric and historic artifact scatter | Recommended eligible, Criterion D | Will be spanned, if possible |
| 7 | AZ T:13:121 (ASM) | Prehistoric petroglyph panels located along bedrock exposure | Recommended eligible, Criterion D | Will be spanned, if possible |
| 8 | AZ T:13:125 (ASM) | Prehistoric artifact scatter associated with bedrock metate and possible hunting blind | Recommended eligible, Criterion D | Will be spanned, if possible |
| 9 | AZ FF:9:17 (ASM): US 80 Highway | In-use two-lane paved highway alignment | Recommended not eligible | Will be crossed adjacent to existing transmission lines |
| 10 | AZ Z:2:66(ASM): Gila Bend Canal | In-use concrete lined irrigation canal alignment | Recommended eligible, Criterion A and possibly B | Will be crossed adjacent to existing transmission lines |
| 11 | Enterprise Canal | In-use unlined irrigation canal | Recommended eligible, Criterion A, C, and D | Will be crossed adjacent to existing transmission lines |

¹ The significance of these properties and their eligibility for the National Register of Historic Places continues to be assessed in compliance with NEPA, and a cultural resource report to support the BLM compliance with the National Historic Preservation Act

² The current impact analysis is preliminary and will be made more specific as engineering designs are completed. The impacts will continue to be addressed in consultation with the BLM Section 106 compliance process.

Three sites within the Project area have been recommended not eligible for listing on the National Register of Historic Places (NRHP): AZ T:9:60 (ASM), a historic trash dump; AZ T:9:63 (ASM), a historic abandoned road segment; and AZ FF:9:17 (ASM), in-use portion of Old U.S. Highway 80.

The privately owned Gila Bend Canal (AZ Z:2:66 [ASM]) is an in-use concrete lined canal. When the canal was first constructed in the early 1920s it was unlined. Over the years, it has been modified through maintenance and upgrading. Nonetheless, it may be regarded as locally significant and is likely eligible for listing on the NRHP under Criterion A and possibly Criterion B.

Enterprise Canal is an unimproved earthen irrigation canal immediately west of the Gila River and has its gate at the Gillespie Dam. The canal appears to have been constructed sometime prior to 1933 but the full history of the canal is poorly documented. The Enterprise Canal has been recommended potentially eligible under Criteria A, C, and D; however, a thorough analysis of contributing and noncontributing elements of the canal has not been conducted.

The Southern Pacific Railroad Phoenix Main Line (AZ T:10:84 [ASM]) is the in-use route of the Union Pacific Railroad (formerly Southern Pacific Railroad) main line that runs from Wellton, Arizona to Picacho, Arizona via Phoenix. This segment was built between 1924 and 1926. The original rails and some associated features (trestles, culverts, and signals) have been replaced, but much of the original alignment and ballast remain intact. Although the Phoenix main line is approximately 45 years younger than the original Southern Pacific main line, it is a historically important railroad and is considered eligible for the NRHP.

The five scatters of prehistoric artifacts and petroglyphs pertain to the Hohokam and Patayan cultural traditions. Important information could be obtained through analysis of the artifacts on the surfaces of these sites, and there is potential for finding buried features. Thus, they are likely to be eligible for the NRHP under Criterion D. The prehistoric component of one site, AZ T:13:18 (ASM), was previously determined potentially eligible for NRHP listing and has undergone limited collection of surface artifacts and subsurface excavations. The nature and eligibility of the historic component of this site has not been previously evaluated.

Potential Impacts

No archaeological or historic properties located within the affected area that are recommended eligible for NRHP listing appear to be threatened by ground-disturbing activities associated with the proposed development of the Project. However, if some of the archaeological sites cannot be avoided, important information would be recovered and preserved prior to the start of construction and such mitigation is likely to be considered satisfactory by the responsible authorities. The proposed line must cross the historic Southern Pacific Railroad, Gila Bend Canal, Enterprise Canal, and Old U.S. Highway 80 and associated features. These properties would be spanned by the new line and would not be directly impacted by construction activities. In addition, the installation of the line is not anticipated to have any indirect effects on the eligible properties within the Project area. Auditory and atmospheric effects associated with construction activities would be minimal and of limited duration, and the settings of these properties had been previously altered by the existing Palo Verde-Kyrene transmission line;

therefore, the selected crossings for the new line would result in minimal visual intrusions into the more pristine settings.

The proposed Project would not directly affect any of the NRHP eligible or listed properties located beyond the area of potential effect. This includes the Gillespie Dam Highway Bridge, the only listed property within the study area. Because the proposed transmission line would be constructed immediately adjacent to an existing transmission line, there would not be any indirect (visual, atmospheric, or auditory) effects to properties beyond the area of potential effect.

There is a low potential for encountering human remains or funerary objects at any of the sites within the Project area; however, if they were unexpectedly discovered on federal lands, GBPP ensures that they would be addressed in accordance with the Native American Graves Protection and Repatriation Act. If such remains were found on state land, they would be reported to the director of the Arizona State Museum in accordance with A.R.S. Section 41-865.

Standard Operating Procedures and Mitigation Measures

The following list includes standard operating procedures and mitigation measures that have been committed to by GBPP to reduce impacts to cultural resources:

- The Applicant shall use existing access roads along the Palo Verde-Kyrene line for construction and maintenance access and only build spur roads for access to new structures.
- The Applicant shall survey any areas not previously surveyed (e.g., new spur roads) prior to construction.
- The Applicant shall restrict all construction vehicle movement outside of the right-of-way to predesignated access, contractor acquired access, or public roads.
- Prior to construction, all construction personnel shall be provided an environmental construction plan and instructed on the protection of cultural and ecological resources. To assist in this effort, the construction contract shall address (a) federal and state laws regarding antiquities and plants and wildlife including collection and removal; and (b) the importance of these resources and the purpose and necessity of protecting them.
- The Applicant shall continue to consult with the State Historic Preservation Office (SHPO) to reach a determination of any cultural resource impacts. The Applicant shall implement any impact avoidance and mitigation measures (e.g., monitoring during construction) for cultural resources developed in consultation with the BLM and the SHPO on land under BLM's jurisdiction and with ASLD on land under ASLD's jurisdiction.

- The Applicant shall avoid or minimize impacts to properties considered eligible for inclusion in the State and National Register of Historic Places to the extent practicable. If human remains and/or funerary objects are encountered during the course of any ground disturbing activities relating to the development of the subject property, the Applicant shall cease work on the affected area of the Project and notify the Director of the Arizona State Museum in accordance with A.R.S. Section 47-1685 or the BLM in accordance with the Native American Graves and Protection and Repatriation Act, depending on land ownership.
- In consultation with SHPO and any applicable land-managing agency, the Applicant shall consider and assess potential direct and indirect impacts to eligible properties related to new access roads or any existing access roads that require blading. An example of an indirect impact would be a road that leads directly to an archaeological site that in effect invites intentional or unintentional vandalism, such as looting or off-road vehicle use; in such cases, adding a locked gate or otherwise blocking the road would be an appropriate treatment.

References

Hildebrandt, Tom. June 2002. Personal communication to Newton DeBardeleben from Arizona Game and Fish biologist.

EXHIBIT F
RECREATIONAL PURPOSES AND ASPECTS

EXHIBIT F
RECREATIONAL PURPOSES AND ASPECTS

As stipulated in the Arizona Corporation Commission Rules of Practice and Procedure, R14-3-219:

“State the extent, if any, the proposed site or route will be available to the public for recreational purposes, consistent with safety considerations and regulations and attach any plans the applicant may have concerning the development of the recreational aspects of the proposed site or route.”

GBPP shall affirmatively offer to work with the affected jurisdictions to join in long-range plans for the corridor.

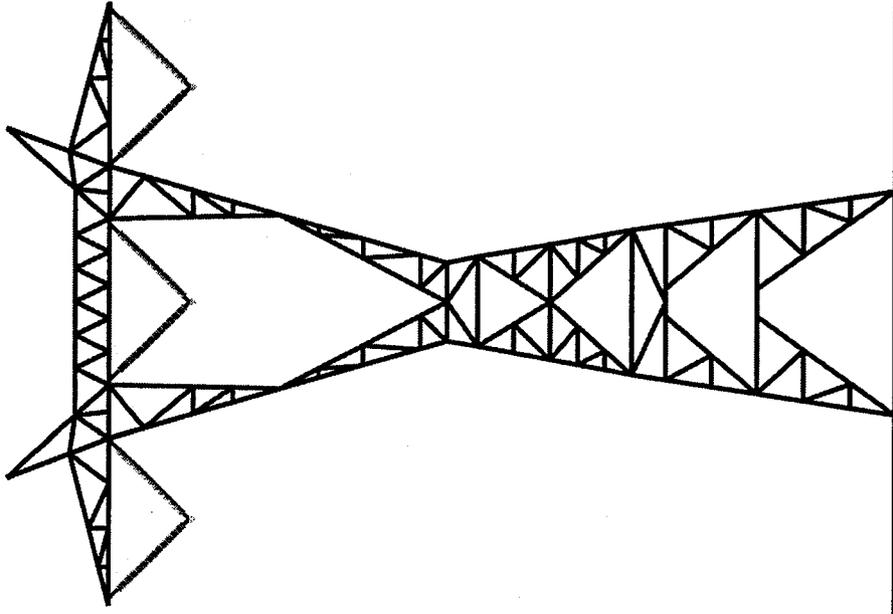
EXHIBIT G
CONCEPTS OF TYPICAL FACILITIES

EXHIBIT G
CONCEPTS OF TYPICAL FACILITIES

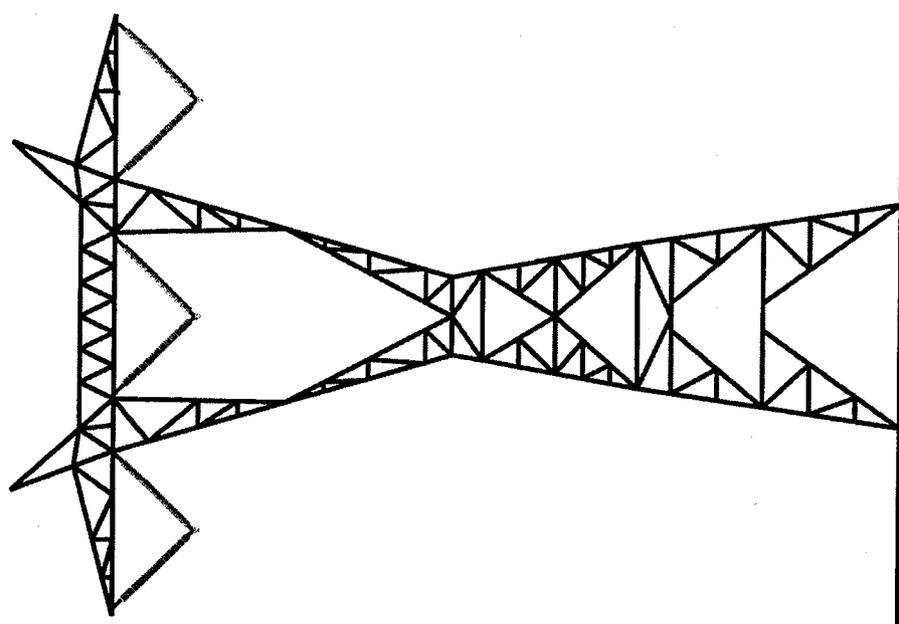
As stipulated in the Arizona Corporation Commission Rules of Practice and Procedure, R14-3-219:

“Attach any artist’s or architect’s conception of the proposed plant or transmission line structures and switchyards, which applicant believes may be informative to the Committee.”

Contained in this exhibit are diagrams illustrating the proposed structures and location (Exhibit G-1) and the interconnections at both the Hassayampa and Jojoba switchyards (Exhibits G-2).



500kV
Hassayampa - Jojoba
(new structures)

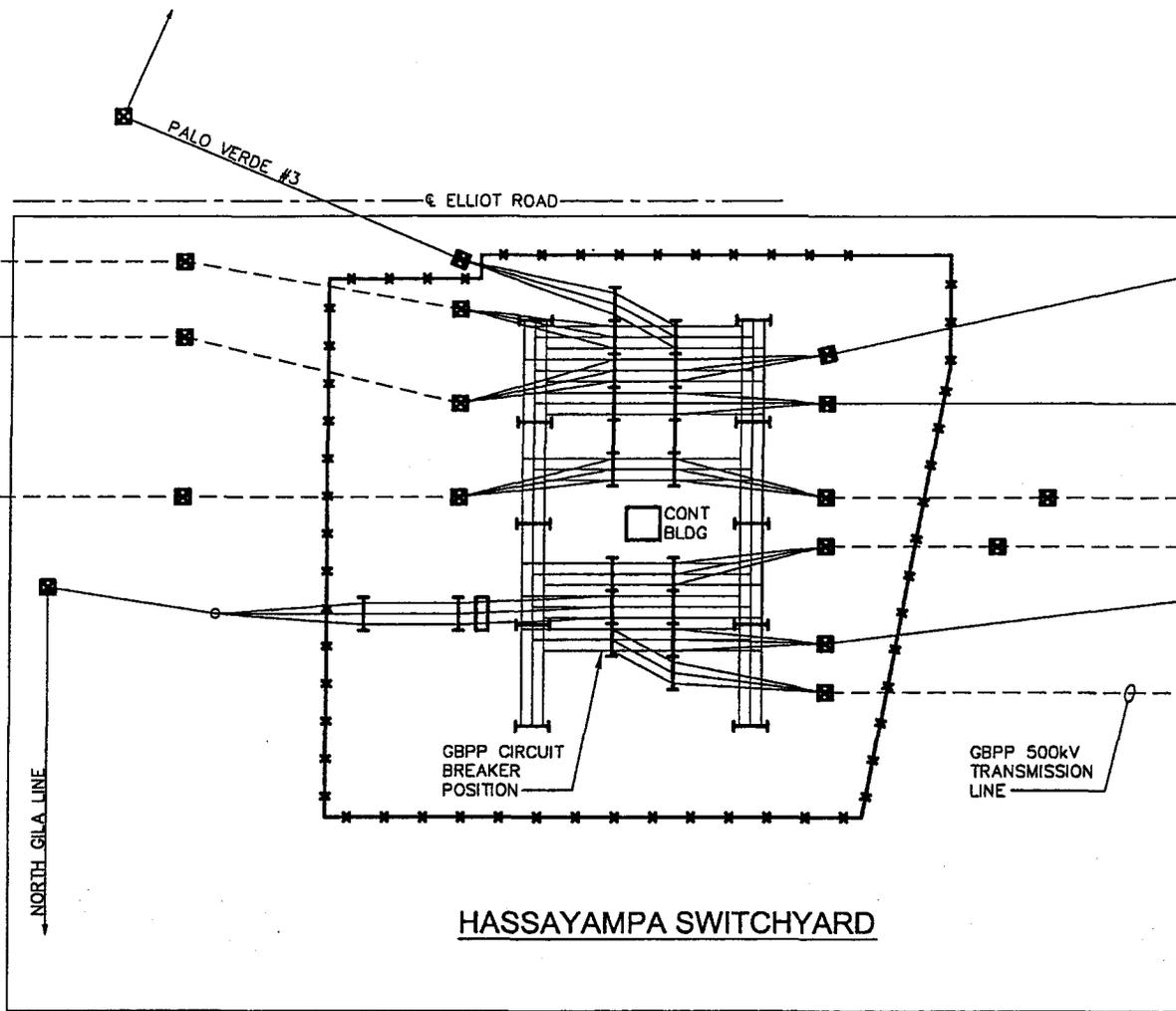


500kV
Palo Verde - Kyrene
(existing structures)

Proposed Structures and Location
Hassayampa to Jojoba
500kV Transmission Line Project
Gila Bend Power Partners, LLC
Exhibit G-1

1 2 3 4 5 6 7 8

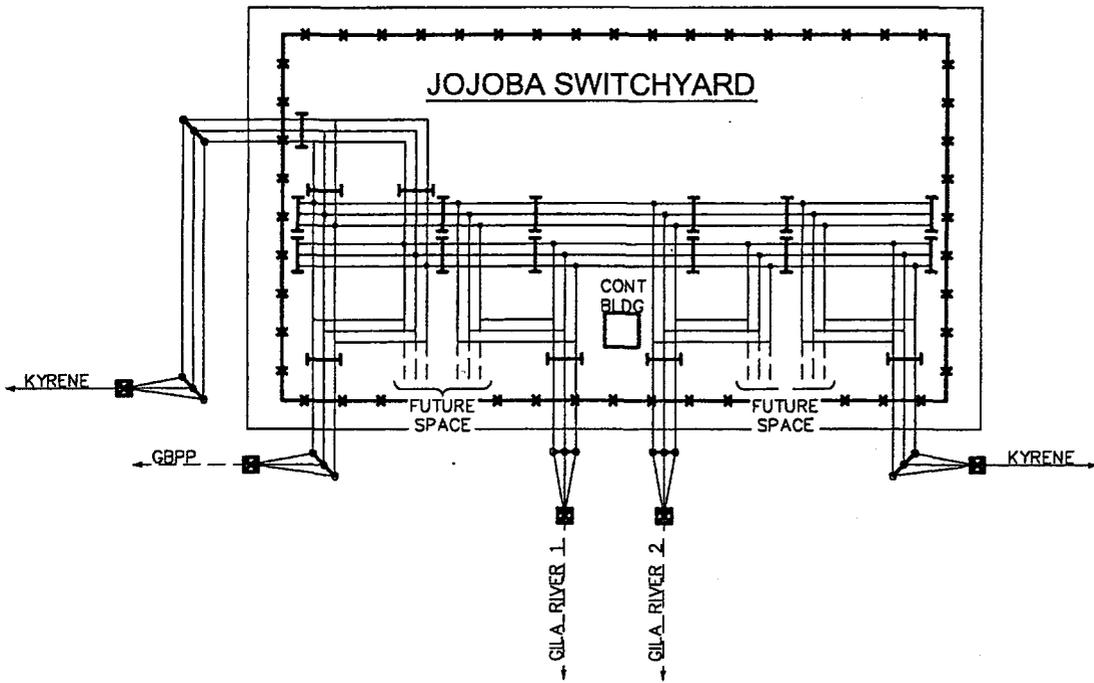
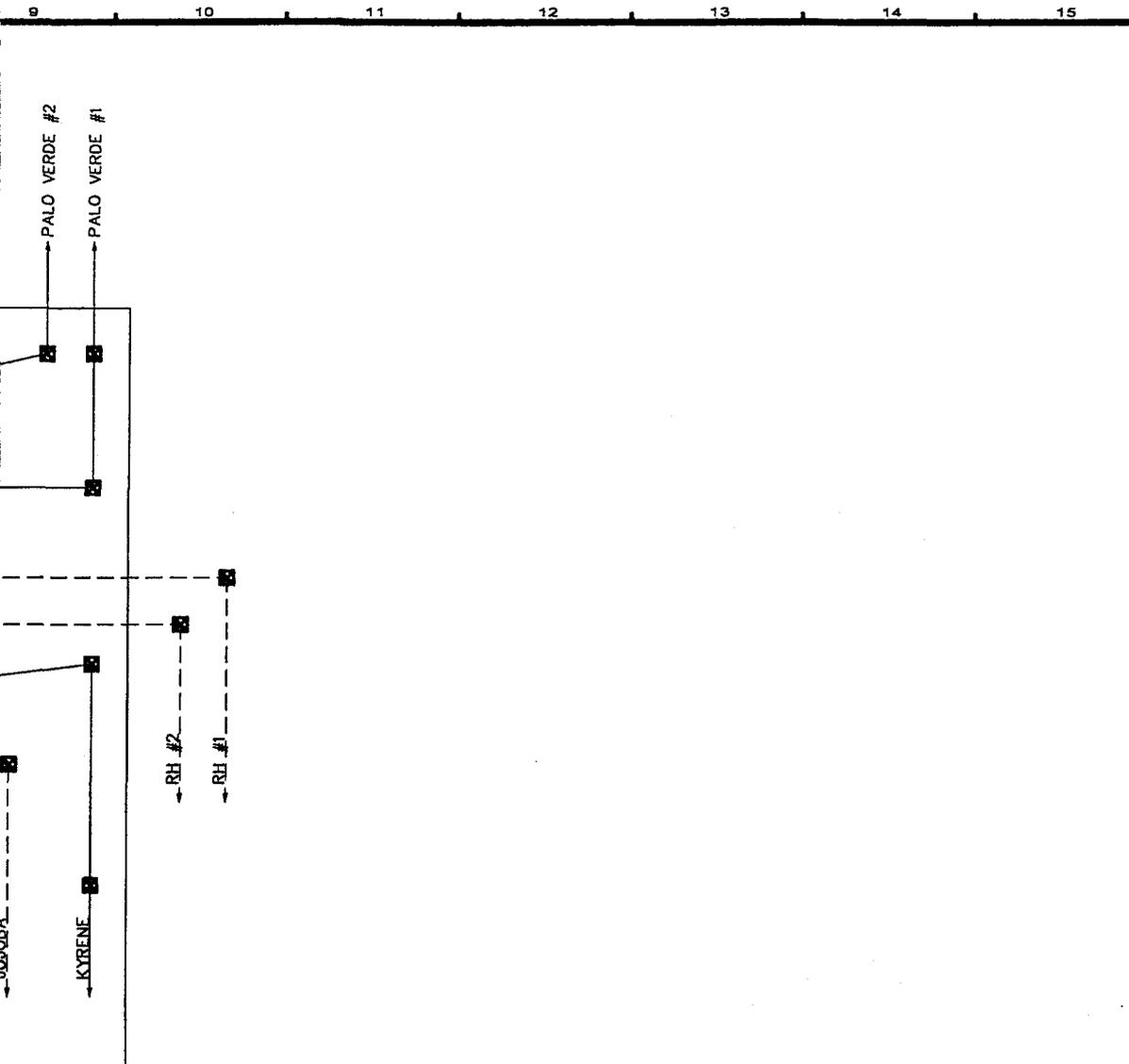
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A



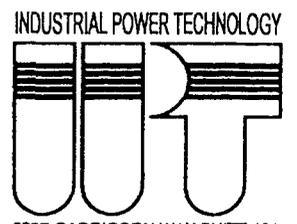
HASSAYAMPA SWITCHYARD

DETAIL "A"

4 5 6 7 8



DETAIL "B"



INDUSTRIAL POWER TECHNOLOGY
 2227 CAPRICORN WAY SUITE 101
 SANTA ROSA, CALIFORNIA 95407
 TEL: 707-528-8900/FAX: 707-528-8901

| No. | Revisions | Date |
|-----|-----------|------|
| | | |
| | | |
| | | |
| | | |

GILA BEND
 POWER PARTNERS L.L.C.

SWITCHYARD
 DIAGRAM

— RW — SS — RW —
 DESIGN DRAWN ENCL

Job Number: 147100 Date: 7/16/02

Sheet Number
 Exhibit G-2

2 of 3 sheets

20020716.083230 B

EXHIBIT H
EXISTING PLANS

EXHIBIT H EXISTING PLANS

As stated in Arizona Corporation Commission Rules of Practice and Procedure R-14-3-219:

“To the extent applicant is able to determine, state the existing plans of the state, local government, and private entities for other developments at or in the vicinity of the proposed site or route.”

Existing and planned land uses are described in Exhibits A and B. A review of planning documents in Maricopa County’s Planning and Development Department was conducted, which indicated that no plans for development have been submitted to the County for unincorporated land within 2 miles of the proposed Project route.

Letters were sent on June 3, 2002 to federal, state, and local government agencies requesting information on planned developments in the vicinity of the Project route (Table H-1). Exhibit H-1 is an example of this letter.

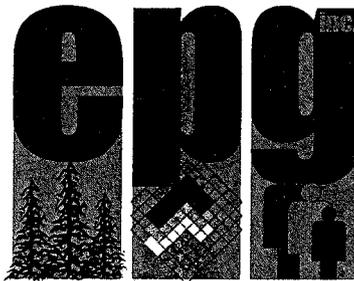
Table H-2 provides information on additional contacts made in order to ensure that sufficient information on existing plans was received. Exhibit H-2 provides a copy of the written response that was received. The applicant is currently unaware of conflicting planned developments along the Project route.

| TABLE H-1 LETTER RECIPIENTS | |
|---|---|
| Gordon Taylor, Planner Arizona State Land Department | Michael Ellegood, Chief Engineer Flood Control District of Maricopa County |
| Michael Anable, Commissioner Arizona State Land Department | Ronald Fletcher, Superintendent Arlington Valley Unified School District #24 |
| Mary Lynn Tischer Transportation Planning Division Arizona Department of Transportation | Dennis Smith, Assistant Director Maricopa Association of Governments |
| William Scalzo, Director Maricopa County Parks and Recreation | Tom Buick, Director Maricopa County Department of Transportation |
| Cindy Lester, Chief, Arizona Section Regulatory Branch U.S. Army Corps of Engineers | Ken Travous, Director Arizona State Parks Department |
| Joy Rich, Director Planning and Development Department, Maricopa County | Joseph Blanton, Town Manager Town of Buckeye |
| James P. McFadden, Complex Warden ASPC – Lewis | Dr. Henry Schmitt, Superintendent Buckeye Union District #20 |

**TABLE H-2
ADDITIONAL CONTACTS**

| Name and Affiliation | Date of Contact |
|---|----------------------|
| Matt Holm, Senior Planner Planning and Development Department, Maricopa County | 05/23/02 01/02/02 |
| Tim Oliver Maricopa County Department of Transportation | 05/24/02 |
| Bob Woodring Maricopa County Department of Transportation | 05/23/02 |
| J.C. Courier El Paso Natural Gas Company | 06/5/02 |
| Michael Reeves El Paso Natural Gas Company | 05/30/02 |
| Ron Serio Phoenix Public Works | 05/23/02 |
| Liz Zeller, Planner Town of Buckeye | 05/23/02 |
| Christ Dimitroplos, Project Manager Statewide Project Management Arizona Department of Transportation | 05/24/02 07/11/02 |
| Brad Dugas, Allied Waste Industries Southwest Regional Landfill | 06/4/02 |
| Tina Heede Desierto Verde Plant Nursery | 06/7/02 |
| Tom Hildebrandt Arizona Game and Fish Department | 12/07/01 06/19/02 |
| Jerard Silvani Planning and Development Department Maricopa County | 01/08/02 |

**EXHIBIT H-1
EXAMPLE LETTER**



environmental planning group

June 3, 2002

RE: Hassayampa to Jojoba 500kV Transmission Project

Dear _____:

Gila Bend Power Partners, LLC ("GBPP") proposes to site and construct a 500 kilovolt (kV) transmission line parallel to an existing 500kV transmission line within Maricopa County, Arizona. The proposed 500kV transmission line will connect at the Hassayampa Switchyard near Palo Verde Nuclear Generating Station and at the Jojoba Switchyard currently under construction east of State Route 85 along the Palo Verde to Kyrene 500kV line (see attached map). The distance is approximately 20 miles. The line will traverse Bureau of Land Management (within a designated utility corridor), state, and private lands. Project construction is scheduled to begin in the first quarter of 2004 and completed in the fourth quarter of 2004.

The purpose of this letter is to request information regarding development plans in the vicinity of the proposed transmission line route. Your response will be included in Exhibit H of the Application for a Certificate of Environmental Compatibility. Submittal of this application to the Arizona Power Plant and Transmission Line Siting Committee of the Arizona Corporation Commission is in compliance with Arizona Revised Statute 40-360 (Article 6.2).

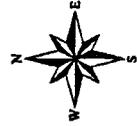
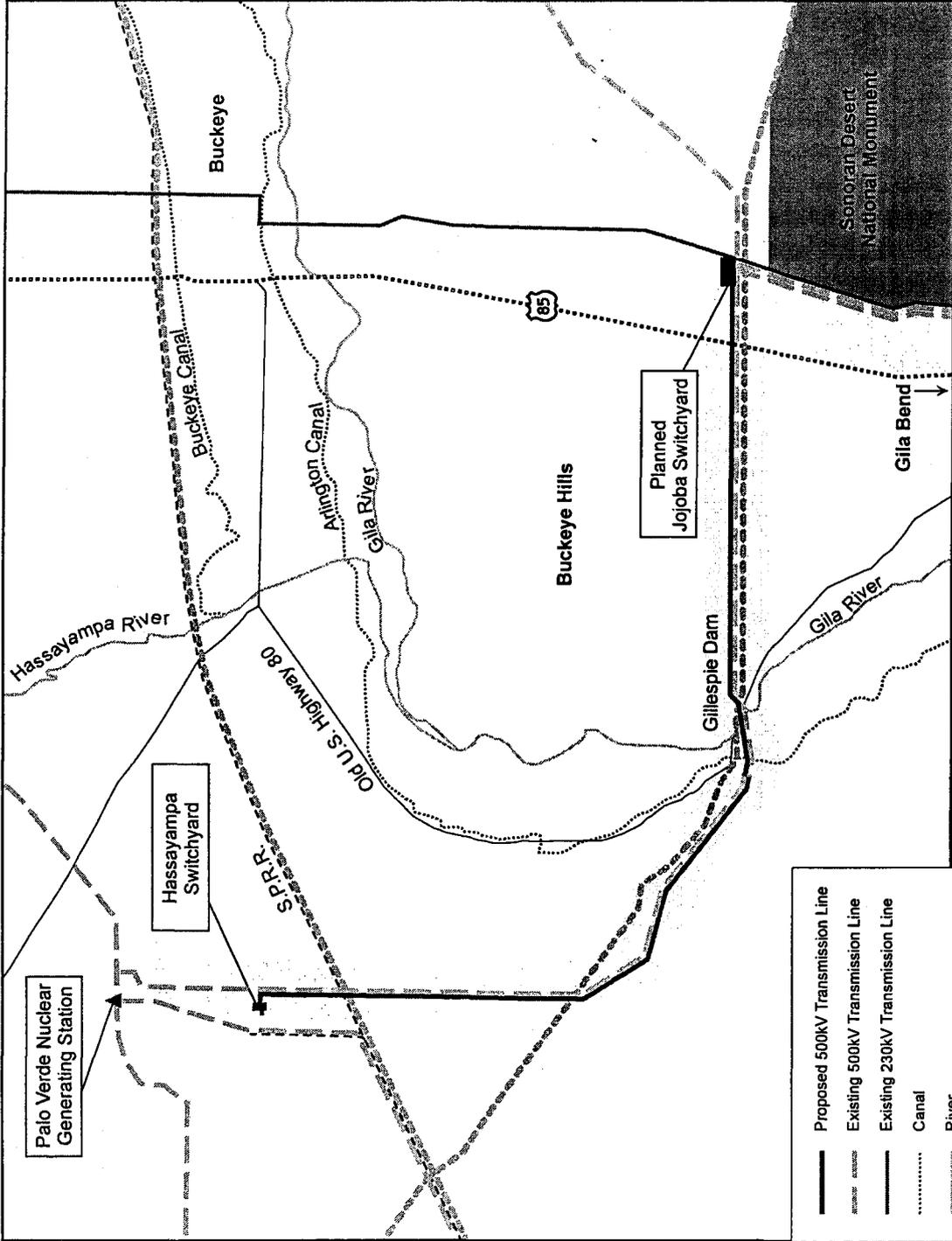
The Environmental Planning Group, Inc. ("EPG") has been retained by GBPP to assist with environmental siting and permitting requirements for this project. We respectfully request your response in writing as to whether or not you are aware of any planned developments or activities in the vicinity of the proposed transmission line that should be brought to our attention.

We would appreciate your response by mid-June so that we can evaluate the information prior to the submittal of the application. Thank you in advance for your reply. Should you have any questions, please do not hesitate to call me at 602-956-4370.

Sincerely,

Lauren Weinstein
Project Manager

Enclosure



*schematic drawing - not to scale

| | |
|--|---|
| | Proposed 500kV Transmission Line |
| | Existing 500kV Transmission Line |
| | Existing 230kV Transmission Line |
| | Canal |
| | River |
| | State Route |
| | Gas Pipeline |
| | Railroad |
| | Highway |
| | National Monument |
| | BLM Designated Utility Corridor (1 mile wide) |

**Proposed Hassayampa to Jojoba
500kV Transmission Line Project**
Gila Bend Power Partners, LLC

**EXHIBIT H-2
RESPONSE LETTER**

Jane Dee Hull
Governor

Michael E. Anable
State Land
Commissioner

Arizona
State Land Department



1616 West Adams Street Phoenix, AZ 85007 www.land.state.az.us

June 11, 2002

Ms. Lauren Weinstein, Project Manager
Environmental Planning Group
4350 E. Camelback Road, Suite G-200
Phoenix, Arizona 85018

RE: Hassayampa to Jojoba 500kV Transmission Project

Dear Ms. Weinstein:

The Planning Section of the Arizona State Land Department is in receipt of your letter dated June 3, 2002 requesting information regarding development plans in the vicinity of the above-mentioned proposed transmission line route. The Planning Section is not aware of any development plans in the vicinity of this proposed project. There has been some speculation noted in the Arizona Republic (May 4, 2002) that the break-up of the Paloma Ranch may support future development because the ranch holds rights to a large amount of water.

We appreciate the opportunity to comment on this proposed project.

Sincerely,


Gordon Taylor
Planning Section Manager

EXHIBIT I
ANTICIPATED NOISE LEVELS
AND INTERFERENCE WITH
COMMUNICATION SIGNALS

EXHIBIT I ANTICIPATED NOISE LEVELS AND INTERFERENCE WITH COMMUNICATION SIGNALS

As stated in Arizona Corporation Commission Rules of Practice and Procedure R14-3-219:

“Describe the anticipated noise emission levels and any interference with communication signals which will emanate from the proposed facilities.”

Certain electromagnetic effects are inherently associated with overhead transmission of electrical power at extra high voltage. These effects are produced by the electric and magnetic fields of the transmission line with one of the primary effects being corona discharge. Corona effects are manifest as audible noise, radio interference, and television interference. These particular effects will be minimized by line location, line design, and construction practices.

CORONA

Corona is a luminous discharge due to ionization of the air surrounding a conductor and is caused by a voltage gradient, which exceeds the breakdown strength of air. Corona is a function of the voltage gradient at the conductor surface. This voltage gradient is controlled by engineering design and is a function of voltage, phase spacing, conductor diameter, conductor bundle, height of conductors above ground, phase geometry, and meteorological conditions. In particular, irregularities on the surface of the conductor such as nicks, scratches, contamination, insects, and water droplets increase the amount of corona discharge. Consequently, during periods of rain and foul weather, corona discharges increase. For the various transmission designs considered for this Project, the maximum calculated voltage gradient at the conductor surface is 14.6kVrms/cm. For comparison purposes, the breakdown strength of air is 21.1kVrms/cm at 25 degrees Celsius and 76 millimeters (mm) barometric pressure.

Corona represents power loss on the transmission line and creates transmission line noise. Successful operation of 500kV lines with similar gradients indicates that this transmission line will not create adverse corona effects.

TRANSMISSION LINE AUDIBLE NOISE

Audible noise is created by corona discharge along the transmission line. As a result, the amount of audible noise is directly related to the amount of corona, which in turn is affected by meteorological conditions, most notably rain. Transmission line audible noise is categorized into

broadband high frequency sounds, which can be described as hissing or sputtering, and low-frequency tones, which are best described as humming sounds.

The highest calculated audible noise levels for the transmission line design during foul weather (rain) may reach 47 decibels (dB) measured on an "A" weighted scale (dBA) at the edge of the right-of-way. This noise level will occur during heavy rain, which will serve to mask the noise. During fair weather the audible noise at the edge of the right-of-way is significantly reduced (18.5 dBA).

Due to the expected low audible noise levels, the line noise will normally be inaudible at the edge of the right-of-way during fair weather. Considering the relatively few hours of audible noise producing weather, the location of the line with respect to neighboring land uses, and the calculated audible noise levels during foul weather, no serious audible noise problems are expected even during foul weather.

RADIO INTERFERENCE

Radio interference is the reception of spurious energy not generated by the transmitting station. This energy affects the amplitude modulated radio band, but not the frequency modulated radio band. Transmission line radio interference is caused by corona and by gap discharges. Gap discharges are electrical discharges across a small gap with the most common cause being loose hardware. Gap discharges comprise a large percentage of all interference problems and are easily remedied. Experience shows that gap discharges are not a problem with steel structures, but are more prevalent with wood structures due to the expansion and contraction of the wood causing hardware to loosen.

Corona caused radio interference impact is dependent on various factors including distance from the line to the receiver, radio signal strength, ambient radio noise level, receiving antenna orientation, and weather conditions. A common practice of determining the expected level of radio interference is to calculate and plot a lateral profile of the transmission line radio interference at a frequency of 1 megahertz (MHz). In addition, a frequency spectrum plot of radio interference can be used to see how the radio interference varies at a particular location through the frequency spectrum.

Comparison of the calculated radio noise levels for the transmission line design shows fair weather radio noise levels in the range of 37.5 dB (above 1 μ V/meter) at a distance of 100 feet from the edge of the right-of-way. This compares favorably with the maximum recommended noise level of 40 dB, above 1 μ V/meter (Tucson Electric Power and IEEE). During inclement weather, transmission line noise levels increase to levels between 40 and 54 dB, above 1 μ V/meter 100 meters from the edge of the right-of-way. Even though radio reception quality is reduced during periods of rainy weather, the impact is expected to be minimal due to the low frequency of inclement weather. In addition to these comparisons of calculated and recommended interference values, transmission line experience for lines of similar design

traversing similar terrain has shown radio interference to be insignificant. Should radio interference caused by the transmission line become unacceptable in a given situation, mitigating techniques can be applied on an as needed basis.

Traditional television broadcasts occur in three ranges:

- 54 - 88 MHz (Channels 2 - 6)
- 174 - 216MHz (Channels 7 - 13)
- 470 - 890 MHz (Channels 14 - 83)

Transmission line interference reduces with increasing frequency above 100 MHz. Consequently, television interference only affects the lower very high frequency (VHF) band (Channels 2 to 6) and no interference will be experienced in the upper VHF (Channels 7 to 13) and ultra high frequency (UHF) bands (Channels 14 to 83) even during foul weather. Television interference noise levels can potentially affect amplitude modulated signals; therefore, the picture quality, which is amplitude modulated, can be affected, but not the sound quality as these signals are frequency modulated.

Where transmission line generated television interference has been found to be a problem, it is generally the result of induced voltage on fences, conductors, and hardware, which are adjacent to the right-of-way. In these situations, the interference can be easily corrected by grounding the objects, or by realigning, relocating, or providing higher gain television antennas.

ELECTRIC AND MAGNETIC FIELD EFFECTS

Electric and magnetic field (EMF) effects are primarily electric and magnetic induction effects whereby voltages and currents are induced in nearby conductive objects by the voltage and current on the line.

Electrostatic induction is the capacitive coupling of a voltage onto insulated objects near the transmission line. The induced voltage is a function of electric field associated with the line, which is a function of the line voltage. Other factors, which affect the level of induced voltage, include insulation, object orientation and dimensions, and line height. When a person reaches to touch a conducting object which has been charged by electrostatic induction, a spark discharge will occur similar to that experienced by a person reaching for a doorknob after walking on a nylon carpet with the difference that sparking will continue to occur as long as the person's hand remains close enough to the object for the sparks to occur. Based on computer modeling the electric fields associated with the proposed transmission lines will be consistent with the electric field values of other similarly configured 500kV transmission lines in the state. Based on this modeling, it is anticipated that any electrostatic induction problems that occur can be easily corrected by grounding the conductive objects.

The magnetic fields associated with transmission lines can also induce voltages and currents in conductive objects, e.g., fences, communication lines, railroads, pipelines, etc., which are close

to and run parallel to a transmission line. The magnetic field level is a function of the current level in a transmission line, which in turn is a function of the line loading. The transmission line will be designed to limit the value of short-circuit current from a conductive object to 5 milliamperes or below, which is the maximum design limit permitted by the National Electrical Safety Code.

The actual EMFs generally associated with power lines will depend on the construction type, the amount of current in the lines, height of the conductors, and other nearby sources of fields. Based on computer modeling of various construction options and operating conditions, the EMFs associated with the Project's transmission lines is anticipated to be comparable to other already existing transmission lines of this voltage in the State.

Where line siting occurs adjacent to existing 500kV transmission lines the design, where practical, shall provide for electrical phase orientation in the new line that will result in the lowest net electric and magnetic fields at the extreme edge of the transmission line right-of-way.

In conclusion, potential EMF effects from the Project are insignificant. Any voltage or current induction effects can be mitigated appropriately through coordination and planning between the Applicants and those experiencing the problem. The fields expected from the Project's transmission lines will be similar to other transmission lines of this voltage, and there is currently no known adverse health effects associated with EMF exposures at levels typically found near such existing transmission lines.

Standard Operating Procedures and Mitigation Measures

The following list includes standard operating procedures and mitigation measures that have been committed to by GBPP to address noise and interference concerns:

- The Applicant shall make every reasonable effort to identify and correct, on a case-specific basis, all complaints of interference with radio or television signals from operation of the line and related facilities. In addition to any transmission repairs, the relevant corrective actions may include adjusting or modifying receivers; adjusting, repairing, replacing or adding antennas, antenna signal amplifiers, filters, or lead-in cables; or other corrective actions.
- The Applicant shall maintain written records for a period of five (5) years of all complaints of radio or television interference attributable to operation of the Project, together with the corrective action taken in response to each complaint. Complaints not leading to a specific action or for which there was no resolution shall be noted and explained. The record shall be signed by the Project owner and also the complainant, if possible, to indicate concurrence with the corrective action or agreement with the justification for a lack of action.

- The Applicant shall advise interested parties how they may express concerns or submit complaints to GBPP when they believe the transmission line or switchyard facilities herein authorized are creating noise in excess of applicable Housing and Urban Development standards or causing interference with communications signals in excess of applicable Federal Communication Commission standards. Such complaints may, at the election of the complainant, be processed by GBPP:

REFERENCES

National Research Council. 1997. Possible Health Effects of Exposure Residential Electric and Magnetic Fields.

EXHIBIT J
SPECIAL FACTORS

EXHIBIT J SPECIAL FACTORS

As stated in the Arizona Corporation Commission Rules of Practice and Procedure R-14-3-219:

“Describe any special factors not previously covered herein, which applicant believes to be relevant to an informed decision on its application.”

As a part of the NEPA process implemented by the BLM, an informational letter providing an overview of the Project and guidance for contacting the agency for further information was mailed in early June 2002. The letter was mailed to those on the BLM Phoenix Field Office mailing list including approximately 375 addresses and to various landowners along the route, identified by GBPP, along the route. Exhibit J-1 is a copy of the letter. The intent of the letter was to notify potentially interested parties and request comments. It also provided information regarding the preparation of the EA and the estimated time frame for availability for public review. To date, BLM has received one response in the form of a telephone call from the *Arizona Republic* newspaper requesting additional information.

The website for the Gila Bend Power Project provides information about the proposed transmission line Project as well as the ability to contact the Project team. Exhibit J-2 is a copy of the information contained on the website. A toll-free telephone information line is available for people to call in with questions or comments.

Exhibit J-3 is a copy of a letter received from Mr. Shane Dille, Manager of the Town of Gila Bend, in which he expresses support of the transmission lines necessary for the power plant.

Exhibit J-4 is the BLM mailing list.

Exhibit J-1
BLM Informational Letter



United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Phoenix Field Office
21605 North 7th Avenue
Phoenix, AZ 85027

IN REPLY REFER TO:
2800 (020)
AZA-31468

June 3, 2002

Request for Comments for the Proposed Right-of-Way for the Gila Bend Power Partners - Hassayampa to Jojoba Transmission Project, Maricopa County, Arizona

INTRODUCTION

The Bureau of Land Management (BLM) requests your comments relating to the proposed right-of-way (R/W) on public lands for the Gila Bend Power Partners (GBPP) - Hassayampa to Jojoba Transmission Project located in Maricopa County, Arizona (see enclosed project map).

The purpose of this mailer is to notify potentially interested parties including local, state, and federal agencies and adjacent land owners of the proposed project. All comments must be received by July 12, 2002, and will be reviewed as part of the environmental analysis for the project. At this time, the BLM has decided to prepare an Environmental Assessment (EA) to determine whether or not the project will have significant environmental effects. The EA is expected to be available for public comment late this summer or early next fall.

PROPOSED ACTION

The Proposed Action involves one 500 kV power line on steel lattice structures which would be constructed within a R/W that is approximately 200 feet wide and 20 miles in length, including approximately 7 miles of BLM administered land. The proposed R/W, as it affects public land, would be built entirely within the PVNGS - Kyrene utility corridor as identified in the Lower Gila South Resource Management Plan (1988). The proposed action requires environmental compliance subject to the National Environmental Policy Act (NEPA).

The R/W of the proposed action would directly impact up to approximately 163 acres of public lands.

DECISION TO BE MADE

The decision to implement the Proposed Action involves the BLM, which has jurisdiction for approximately 163 acres of public lands involved in the project.

Implementation of the Proposed Action will depend on the following: 1) BLM Field Manager reviews the EA, including comments received, and documents the decision in

a Decision Record that contains a Finding of No Significant Impact (FONSI); or 2) makes the decision to prepare an Environmental Impact Statement (EIS).

ISSUES

At a minimum, the EA will discuss the existing conditions of each resource and environmental consequences of the alternative(s) on the following issues:

- Biological Resources (plants, wildlife, threatened and endangered species, and livestock grazing)
- Cultural Resources (archaeological sites)
- Land Use (recreation, access, R/W, etc.)
- Socioeconomics
- Physical Resources (waters of the U.S., ground/surface water use, air quality, etc.)

NEPA PROCESS

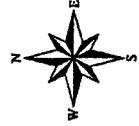
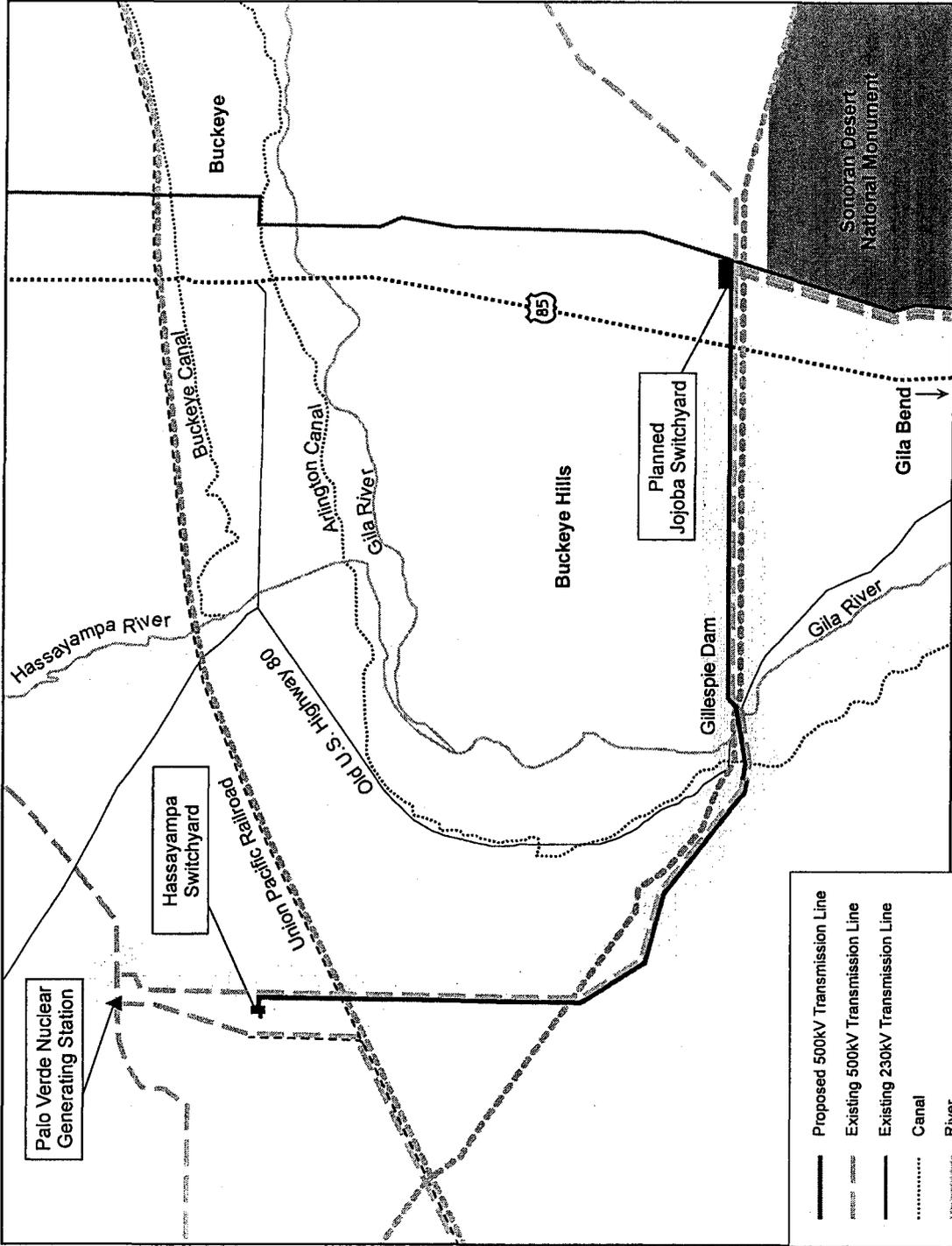
- 30-day public comment period
- Preparation of EA
- Decision Record issued
- Public Protest & Appeal Period

If you have any questions, please contact Camille Champion at (623) 580-5526.

Sincerely,


Rick Cooper
Acting Field Manager

Enclosure
Project Map



*schematic drawing - not to scale

**Proposed Hassayampa to Jojoba
500kV Transmission Line Project
Environmental Assessment**
Gila Bend Power Partners, LLC

- Proposed 500kV Transmission Line
- Existing 500kV Transmission Line
- Existing 230kV Transmission Line
- Canal
- River
- State Route
- Gas Pipeline
- Railroad
- Highway
- National Monument
- BLM Designated Utility Corridor (1 mile wide)

Exhibit J-2
Town of Gila Bend Letter



TOWN OF GILA BEND

The Heart of Arizona

January 15, 2001

Mr. Robert C. Walther, P.E.
Gila Bend Power Partners, LLC
C/o Industrial Power Technology
2227 Capricorn Way, Suite 101
Santa Rosa, CA 95407

Mr. Walther;

This letter is to document the GBPP 500kV Transmission Project's consistency with future planning for the Town of Gila Bend and our support of the Project. The Town is anticipating that the GBPP generation station will bring growth and many new opportunities to our community. We understand that the power plant is useless without the necessary transmission lines to connect it to the transmission grid. Therefore we support and encourage your efforts, and those of the regulatory community, to make this project a reality for Gila Bend and the growing Southwest Valley.

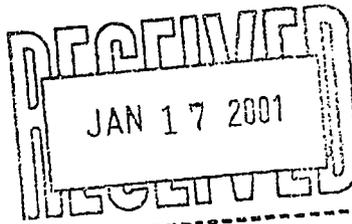
As the Manager for the Town of Gila Bend, I am looking forward to continuing our cooperative working relationship with GBPP to see the successful completion of the Project.

If you have any questions, or if I can be of further help in ensuring the success of this very worthwhile project, please let me know.

Sincerely,

Shane D. Dille
Manager

Cc: Mayor



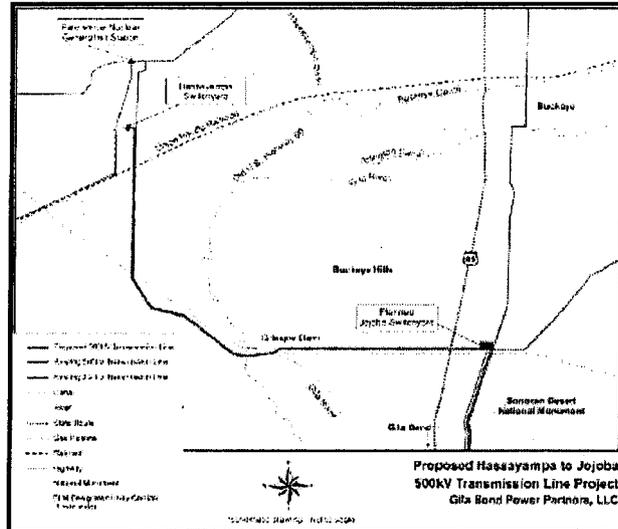
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Exhibit J-3
GBPP Website Information



GILA BEND
Power Partners, L.L.C.

GILA BEND POWER PROJECT Transmission Project Information



Gila Bend Power Project Transmission Project Map

[Gila Bend Home Page](#)

[Facts Page](#)

[News](#)

[Overall Project Map](#)

[Transmission Project Page](#)

[Transmission Project Map](#)

[Comments & Questions](#)

[Town of Gila Bend Page](#)

[Industrial Power Technology](#)

Transmission Line Information

Gila Bend Power Partners, LLC is proposing to construct a 500 kV transmission line between the Hassayampa Switchyard near the Palo Verde Nuclear Generating Station west of Phoenix, AZ, & the Jojoba Switchyard east of State Route 85, north of Riggs Road. This route is shown on the [Transmission Project Map](#) page. The project will complete the transmission link between the Gila Bend Power Partners' planned power plant in Gila Bend & the Hassayampa Switchyard.

What does the project involve?

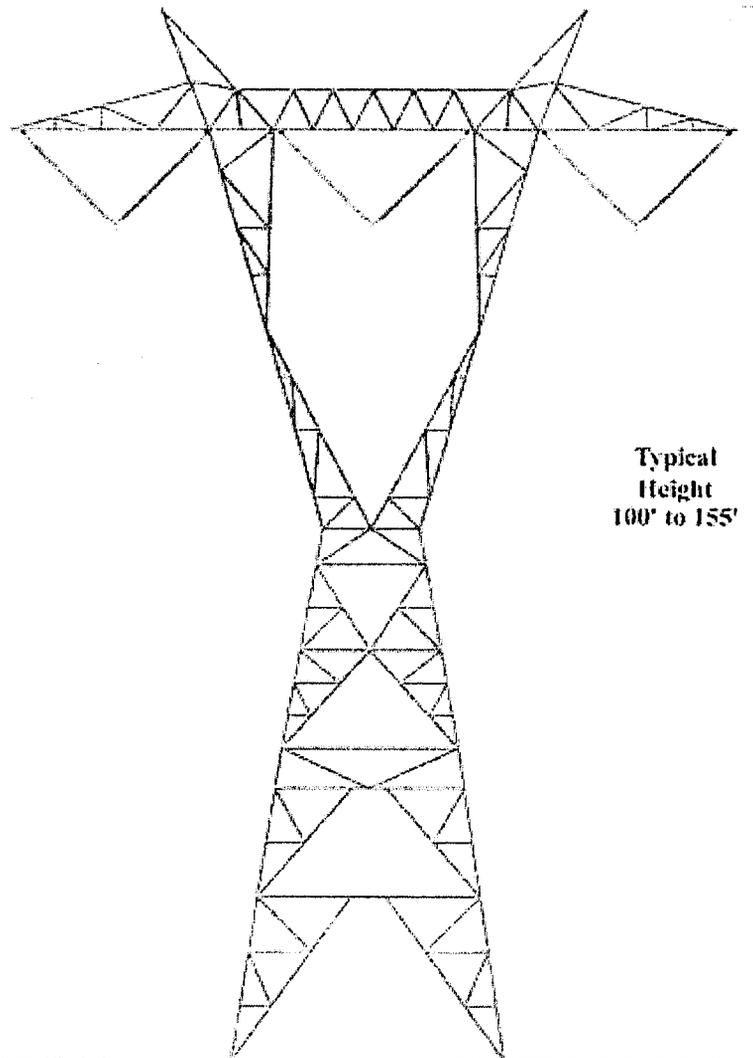
- The proposed route is approximately 20 miles long.
- The project will be constructed in an existing utility corridor including BLM right of way.
- The proposed route will parallel an existing 500kV line.
- The transmission line will be constructed using a single-circuit

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lattice tower, similar to existing structures in the utility corridor.

- A Typical Structure is depicted below.
- Construction of this project is expected to begin in early 2004 & completed by late 2004.

Typical 500kV Single-Circuit
Steel Lattice Structure



Typical
Height
100' to 155'

Hassayampa to Jojoba
500kV Transmission Line Project

[Return to Top](#)

Have a Question or Comment?

Please Visit Our

" Comments & Questions Page "

or, Email Us @:

Question@GilaPower.Com

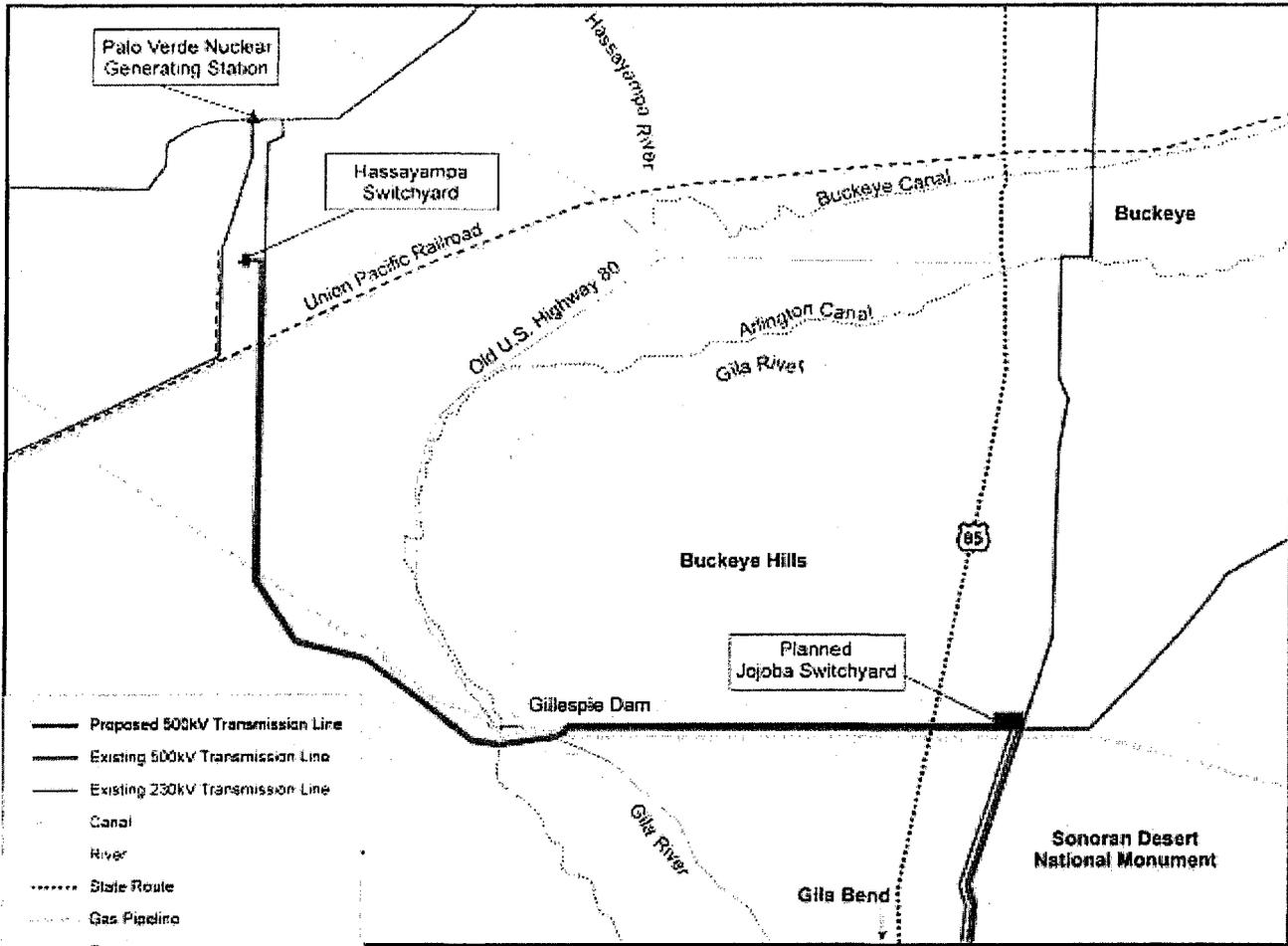
You May Call
Gila Bend Power Partners
Toll-Free in Arizona at:

1-866-279-4288

*"Thanks for visiting our State-of-the-art Energy Project
Website."*

A Development of Gila Bend Power Partners, L.L.C.

GILA BEND POWER PROJECT Transmission Project Map



- Proposed 500kV Transmission Line
- Existing 500kV Transmission Line
- Existing 230kV Transmission Line
- - - Canal
- ~ ~ ~ River
- State Route
- - - Gas Pipeline
- - - Railroad
- Highway
- National Monument
- BLM Designated Utility Corridor (1 mile wide)



*schematic drawing - not to scale

**Proposed Hassayampa to Jojoba
500kV Transmission Line Project
Gila Bend Power Partners, LLC**

Return to Transmission Project Page

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Exhibit J-4
BLM Mailing List

President
Arizona Antelope Foundation
P.O. Box 15501
Phoenix, AZ 85060-5501

Urban Wildlife Specialist
Arizona Game & Fish Department
7200 E. University
Mesa, AZ 85207

Benedict Feeding Company
P.O. Box 12065
Casa Grande, AZ 85230-2065

Program Development Division
Bureau of Reclamation
P.O. Box 81169
Phoenix, AZ 85069-1169

Environmental Resource Mgmt. Div.
Bureau of Reclamation
P.O. Box 81169
Phoenix, AZ 85069-1169

City Manager
City of Globe
150 N. Pine Street
Globe, AZ 85501

DEI Professional Services
7600 N. 15th Street, Suite 290
Phoenix, AZ 85020-4327

Real Estate & Utilities
Federal Aviation Administration
P.O. Box 92007
Los Angeles, CA 90009

Forest Guardians
1411 2nd Street
Santa Fe, NM 87505

Public Information
Lake Mead National Recreation Area
601 Nevada Highway
Boulder City, NV 89005

League of Arizona City & Towns
1820 W. Washington
Phoenix, AZ 85007

Mesa 4 Wheelers
P.O. Box 107
Mesa, AZ 85201

People for the USA/Globe-Miami
Chapter
P.O. Box 1802
Claypool, AZ 85532

Prescott Audubon Society
P.O. Box 4156
Prescott, AZ 86302

Resident
P.O. Box 9328
Phoenix, AZ 85068

Sierra Club - SWO
812 N. 3rd Street
Phoenix, AZ 85004

Sun City Homeowners Association
Attention: Ione Boynton
10401 W. Coggins Drive
Sun City, AZ 85351

Town Administrator
Town of Carefree
P.O. Box 740
Carefree, AZ 85377

Arizona Chapter of the Wildlife
Society
P.O. Box 41337
Phoenix, AZ 85080

Bray Addison
Arizona Game & Fish Department
7200 E. University Avenue
Mesa, AZ 85207

Michael E. Anable
Arizona State Land Department
1616 W. Adams Street
Phoenix, AZ 85007

Jennifer B. Anderson
Arizona Center for Law
202 E. McDowell Road, #153
Phoenix, AZ 85004

Jim Anderson
Apache - Sitgreaves N.F.
P.O. Box 640
Springerville, AZ 85938

David Arbo
Aggregate Sales Manager
P.O. Box 52140
Phoenix, AZ 85072-2140

Jeff Arnold
National Association of Counties
440 1st Street NW
Washington DC 20001

Dr. Glenn Ashby
10101 N. Saddle Terrace
Phoenix, AZ 85020-1020

Carole Ashworth
P.O. Box 1163
Yarnell, AZ 85362

Sandy Bahr
Sierra Club
812 N. Third Street
Phoenix, AZ 85004

William D. Baker
Ellis, Baker & Porter
P.O. Box 16450
Phoenix, AZ 85011

Cheryl Banta
Pinal County
P.O. Box 727
Florence, AZ 85232

Les Bender, Vice Chairman
Weaver Mining District
Box 955
Congress, AZ 85332

Otto and Harriet Berthelsen
Guardians of the Rural Environment
Box 215
Yarnell, AZ 85362-0215

William S. Birdsong
5013 W. Palo Verde Avenue
Glendale, AZ 85302

Joni Bosh
Sierra Club
3708 E. Cholla
Phoenix, AZ 85028

Jerry Brimhall
P.O. Box 554
Bagdad, AZ 86321

Bob Brooks
All American Pipeline, L.P.
220 N. William Dillard Drive
Gilbert, AZ 85233

Jack A. Brown
Arizona State Senator
1700 W. Washington
Phoenix, AZ 85007

Thomas R. Buick
Maricopa County Dept of Trans
2901 W. Durango Street
Phoenix, AZ 85009

John Bunyak
National Park Service - AIR
P.O. Box 25287
Denver, CO 80225

Rebecca Burke
Arizona State University Libraries
P.O. Box 871006
Tempe, AZ 85287-1006

Mr. Pierre M. Cantou
BIA 2 Arizona Center, 13th Floor
400 N. 5th Street
Phoenix, AZ 85004

Reynaldo Cantu
ISDA
201 Esperanza
P.O. Box 687
Ajo, AZ 85321

N.T. Carter
Maricopa Mica Mines
P.O. Box 249
Maricopa, AZ 85239

Paul Catanzariti
Arizona State Mine Inspector's Office
1700 W. Washington, Suite 400
Phoenix, AZ 85007

Matt Chew
Arizona State Parks
1300 W. Washington
Phoenix, AZ 85007

Anne Coe
Superstition Area Land Trust
5776 E. Forest
Apache Junction, AZ 85219

H. Mason Coggin, PE
317 E. Griswold
Phoenix, AZ 85020

Glendon E. Collins
Public Lands Foundation
1016 E. Palmar Avenue
Phoenix, AZ 85020

Charles Collis
4111 E. Maldonado Drive
Phoenix, AZ 85040-5120

Donald E. Cox
Lions International (Arizona)
11101 W. Hohokam Drive
Sun City, AZ 85373-1501

Robert Darr
18755 N. 89th Lane
Peoria, AZ 85382

Richard F. Delong
Environmental Mgmt Associates, Inc.
5425 Louie Lane, Suite A
Reno, NV 89511

Marilyn DeRosa, R.G.
Flood Control District Maricopa Cty
2801 W. Durango Street
Phoenix, AZ 85009

Robert M. Dixon
The Imprinting Foundation
1231 E. Big Rock Road
Tucson, AZ 85718

David Farrell (CMD-2)
U.S. Environmental Protection
Agency
75 Hawthorne Street
San Francisco, CA 94105

Michael Fitzgerald
Ecosphere Environmental Services
2257 Main Avenue, Patio Level
Durango, CO 81301

Anne C. Gamson, Chief
U.S. Army Corps of Engineers
3636 N. Central Avenue, Suite 770
Phoenix, AZ 85012-1936

Carmen Goswick
Western Yavapai Conservation Ed.
Ctr.
8841 E. Florentine Road, Suite C
Prescott Valley, AZ 86314-8731

David J. Griffin
93 Alpine Village Drive
Alpine, CA 91901-2141

John Gunn
Southwest Natural Resources
857 W. Portobello Avenue
Mesa, AZ 85210

Phil Hackney
ENSR
1601 Prospect Parkway
Fort Collins, CO 80525

Sandy Haddock
6901 E. Windsor
Scottsdale, AZ 85257

Robert W. Halla
Great Western Trail
P.O. Box 3564
West Sedona, AZ 86340

David L. Harlow, Field Supervisor
USFWS
2321 W. Royal Palm Road, #103
Phoenix, AZ 85021

Russell Heisinger
Maricopa County Assessor's - GIS
301 W. Jefferson Street, Suite 330
Phoenix, AZ 85003

Kent Henry
Halle Ranch
P.O. Box 1021
Mayer, AZ 86333

Frank R. Hensley, Ph.D.
Grand Canyon University
3300 W. Camelback Road
Phoenix, AZ 85017

Amy L. Heuslein
Bureau of Indian Affairs
P.O. Box 10
Phoenix, AZ 85001

Diane D. Hienton
Attorney General's Office
1275 W. Washington
Phoenix, AZ 85007

Ed Huskinson, Jr.
Consulting Geologist
4804 Steinke Drive
Kingman, AZ 86401

J.B. Jacks
P.O. Box 33
Pahrump, NV 89041

Janet L. Jacobsen
Arizona Great Outdoors
Box 6243
Scottsdale, AZ 85261

Mollie P. Jennings
Box 832
Holbrook, AZ 86025

Margaret L. Jensen
P.O. Box 54
Bagdad, AZ 86321

Ken Johnson
MCDOT
2901 W. Durango Street
Phoenix, AZ 85009

Bruce Johnston
1729 E. Palm Lane
Phoenix, AZ 85006-2099

Dr. Thomas R. Jones
Grand Canyon University/Biology
3300 W. Camelback Road
Phoenix, AZ 85017

Christiana Juck
Superstition Area Land Trust
10880 Cordova
Gold Canyon, AZ 85219

Lori Kasson
Pinal County Visitor Center
P.O. Box 967
Florence, AZ 85232

Kellis Edgar
Kellis Ranch
Box 264
Bagdad, AZ 86321

John Kennedy
Arizona Game & Fish Department
2221 W. Greenway Road
Phoenix, AZ 85023-4399

John Kevin
P.O. Box 2187
Apache Junction, AZ 85217

Michael R. King
Prescott National Forest
344 South Cortez
Prescott, AZ 86303

John Krause
Bureau of Indian Affairs
P.O. Box 10
Phoenix, AZ 85001

C.B. "Doc" Lane
Arizona Cattle Growers' Association
1401 N. 24th Street, Suite 4
Phoenix, AZ 85008

Daniel P. Laux
South Branch Resources
580 S. Prospectors Road
Apache Junction, AZ 85219

Mr. Tom H. Lazzelle
4946 W. Beverly Lane
Glendale, AZ 85306-2028

Ron S. Lee
Arizona Commission of Indian Affairs
1400 W. Washington, Suite 300
Phoenix, AZ 85007

David Lutz
Forest Service
1905 W. Cimarron Drive
Camp Verde, AZ 86322

Michael Majeski
ARI-VADA 4 Wheelers/ASA4WDC
10443 W. Diana Avenue
Peoria, AZ 85345

Laine E. Malduff
HC 63, Box 4062
Mayer, AZ 86333

John G. Marr
P.O. Box 702
Tijeras, NM 87059

Douglas K. Martin
Arizona State Mine Inspector
1700 W. Washington, #400
Phoenix, AZ 85007

Johnny W. McGee
Transwestern Pipeline Company
P.O. Box 1188
Houston, TX 77251-1188

Craig McMullen, Field Supervisor
Arizona Game & Fish Department
7200 E. University
Mesa, AZ 85207

P.K. Medhi
Minerals Management International
1002 E. Shadow Ridge Drive
Casa Grande, AZ 85222-1710

Alvin L. Medina
Rocky Mountain Research Station
2500 S. Pine Knoll Drive
Flagstaff, AZ 86001

Trudy Mertens
Site Steward for SHPO
P.O. Box 4250
Cave Creek, AZ 85327-4250

Karl F. Meyer
ADEQ
3033 N. Central Avenue
Phoenix, AZ 85310

Robert W. Michaels
Bureau of Reclamation
P.O. Box 81169
Phoenix, AZ 85069-1169

Edwin W. Minch
2207 W. Main, #15
Mesa, AZ 85201

Bob Moffett
S. Gila County Economic Dev Corp
P.O. Box 1351
Globe, AZ 85501

Russell Moore
SWCA Inc., Environmental Cons.
8461 Turnpike Drive, Suite 100
Westminister, CO 80030

Dennis Moroney
Cross U Cattle Company
Route 30, Box 1060
Prescott, AZ 86305

Jack Mazingo
SAIC
18706 N. Creek Parkway
Bothell, WA 98011

John A. Murphy Jr.
7273 N. Central
Phoenix, AZ 85020

Mark Oppedahl
Maricopa Lapidary Society
P.O. Box 36683
Phoenix, AZ 85067

Jerry Orrick
County Supervisors Assn of Arizona
1570 W. Van Buren
Phoenix, AZ 85007

Jim Parker
Parker Dairy Farms, Inc.
P.O. Box 711
Congress, AZ 85332

Ken A. Phillips
Arizona Department of Mines &
1502 W. Washington
Phoenix, AZ 85007-3210

Donald J. Pinkava
Department of Plant Biology
Box 871601
Tempe, AZ 85287-1601

Kenneth Porter
U.S. Geological Survey
P.O. Box 25046, Mail Stop 750
Denver, CO 80225-0046

Ray Prendercast
Sierra Club
10914 Palmeras Drive
Sun City, AZ 85373

Steve Radvak
ACT Environmental Technologies
2432 W. Peoria Avenue #1204
Phoenix, AZ 85029-4736

Shelley Rasmussen
Arizona Site Steward Program
51413 N. 295th Avenue
Wickenburg, AZ 85390

Charles W. Rasmussen
Permittee-Coyote Flat Allotment
1370 N. Railroad Drive
Ajo, AZ 85321

Harold H. Ray
RAYCO Enterprises
HC 68, Box 430
Kirkland, AZ 86332

Jim Reck
7303 W. St. John Road
Glendale, AZ 85308

William Reid
Private Consultant
49 Redbluff Drive, 508-1
Hurricane, UT 84737-3183

Norma Campbell Reynolds
"Bell Henry Mining Claims"
P.O. Box 162
Salome, AZ 85348

Mike Rice, Manager
Natural Resources, Minerals Section
1616 W. Adams
Phoenix, AZ 85007

David E. Richert
City of Phoenix Planning Department
200 W. Washington, 6th Floor
Phoenix, AZ 85003-1611

Forrest R. Rickard
P.O. Box 370
Ajo, AZ 85321

Michael Rigney
The Nature Conservancy
49614 Highway 60
Wickenburg, AZ 85390

Natalie Robb
Arizona Game & Fish Department
7200 E. University
Mesa, AZ 85205

Colonel R.B. Rodke, Cpl. SR/WA
8910 N. Leisure Lane
Florence, AZ 85232

A.E. Rogge
Dames & Moore
7720 N. 16th Street, #100
Phoenix, AZ 85020

Christa Romppanen
P.O. Box 944
Yarnell, AZ 85362-0944

Michael Rozycki
Yavapai County Planning
500 S. Marina Street
Prescott, AZ 86303

Jan Russell
MO Production
P.O. Box 806
Yarnell, AZ 85362-0806

W.D. Sawyer
Arizona Department Mines
1502 W. Washington
Phoenix, AZ 85007

L.B. Scacewater, Assistant Director
City of Phoenix Parks & Recreation
200 W. Washington, 16th Floor
Phoenix, AZ 85003

Allan J. Schilz
Ogden Environmental
6400 Uptown Boulevard, NE #340W
Albuquerque, NM 87110

Harley G. Shaw
The Juniper Institute, Inc.
P.O. Box 370
Chino Valley, AZ 86323

Mr. Chuck Shipley
Arizona Mining Association
2702 N. 3rd Street #2015
Phoenix, AZ 85004-4606

Tessy Shirakawa
Petrified Forest NP - Interp Div.
P.O. Box 2217
Petrified Forest, AZ 86028

Southwest Corporation
Attention: Brian Siefker
P.O. Box 658
Elk Grove, CA 95759-0658

Terry L. Smith
Gila County Development Office
1400 E. Ash Street
Globe, AZ 85501

Albert W. Slater
Rotary Club of Kearny
Box 1204
Kearny, AZ 85237-1204

Merle Smith
3595 Courtside Circle
Huntington Beach, CA 92649

Dr. Leonard Staff
Mesa Four Wheelers
2210 S. Mill Avenue, #6
Tempe, AZ 85282-2153

Barry Snyder
Ogden Environmental
5510 Morehouse Drive
San Diego, CA 92121

Donald Spirk
Salt River Project
P.O. Box 52025, M/S PBF200
Phoenix, AZ 85072-2025

Don Stillwell
Phelps Dodge Corporation
2600 N. Central Avenue
Phoenix, AZ 85004-3014

Don Steuter
Sierra Club
2508 E. Heatherbrae
Phoenix, AZ 85016

Jerry & Jeanette Stewart
P.O. Box 1044
Yarnell, AZ 85362-1044

Jim Vaaler
Sierra Club (Palo Verde Group)
4038 E. Turney
Phoenix, AZ 85018

Roland Tang
Arizona Department of Transportation
205 S. 17th Avenue, MD619E
Phoenix, AZ 85051

Dillard Thetford
Pacific Standard Specialties
P.O. Box 2796
Globe, AZ 85502

Ron Van Ommeren
Senna Environmental Services
4326 E. Turney
Phoenix, AZ 85018

Thomas J. Vachuda
Simpson Thacher
425 Lexington Avenue
New York, NY 10017-3954

Bill VanAusdal, Deputy Director
Maricopa County Parks & Recreation
3475 W. Durango Street
Phoenix, AZ 85009

Ellen Watters
Globe Public Library
339 S. Broad Street
Globe, AZ 85501

Ruth Bazja Villalobos
USACOE, Los Angeles District
P.O. Box 532711, CESPL-PD-R
Los Angeles, CA 90053-2325

John Walker
Sun State Rock & Materials, Inc.
P.O. Box 1340
Sun City, AZ 85372-1340

William H. Wells III
Arizona Electric Power Cooperative
P.O. Box 670
Benson, AZ 85602

Craig Weaver
Tonopah Area Coalition
P.O. Box 334
Tonopah, AZ 85354

William & Deena Weddle
Catalina Line Riders
P.O. Box 141
Winston, NM 87943-0141

Teresa Williams
City of Globe
150 N. Pine Street
Globe, AZ 85501

Frances W. Werner
Resource Advisory Council
3216 N. Jackson Avenue
Tucson, AZ 85719

Kathy Whitman
Whitman & Company
2559 E. Fort Lowell Road
Tucson, AZ 85716

Jeff Williamson
Executive Director, Phoenix Zoo
455 N. Galvin Parkway
Phoenix, AZ 85008-3431

Robert A. Witzeman
Maricopa Audubon Society
4619 E. Arcadia Lane
Phoenix, AZ 85018

Brian Wood
37 Verano Loop
Santa Fe, NM 87505

Gloria Yturalde - Floor
Maricopa County Comm Dev
3003 N. Central Avenue, #1040
Phoenix, AZ 85012

Thomas E. Wright
7102 E. Oak Street, #8
Scottsdale, AZ 85257-2144

Ray Wrobley/James Sullivan
S.E.C., Inc.
20 Stutz Bearcat Drive, #6
Sedona, AZ 86336

Christine E. Sheehy
Director of Planning
Villages of Desert Hills Del Webb
Corp.
14901 N. Scottsdale Road, #200
Scottsdale, AZ 85254

Ted Zukoski
Law Fund
2260 Baseline Road
Boulder, CO 80302

Bob Adams
USDA - NRCS
8841 E. Florentine Road, Suite C
Prescott Valley, AZ 86314

Laurence C. Linser
Deputy Director
State of AZ, Dept. of Water Resources
500 N. 3rd Street, 4th Floor
Phoenix, AZ 85004

Duane L. Shroufe
Director, AZ Game & Fish Dept.
2221 W. Greenway Road
Phoenix, AZ 85023

Thom Valencia
Supervisor, Lake Pleasant Regional Park
41835 N. Castle Hot Springs Road
Morristown, AZ 85342

The Nature Conservancy
300 E. University Boulevard
Tucson, AZ 85705

Arlan Colton
Arizona State Land Department
1616 W. Adams
Phoenix, AZ 85007

Stan Rice, Jr., President
Yavapai Prescott Indian Community
530 E. Merritt Street
Prescott, AZ 86301

Rosemary Alexander
Office Manager
OFFICE OF SENATOR JOHN
MCCAIN
450 W. Paseo Redondo, Suite 200
Tucson, AZ 85701

Prescott Chapter
People for the West
P.O. Box 307
Humboldt, AZ 86329

Mason H. Coggin
Arizona Department of Mines Minerals
1502 W. Washington
Phoenix, AZ 85007

The Honorable Jane Hull
Governor of Arizona
1700 W. Washington Street
Phoenix, AZ 85007

Arlene Lassila, District Assistant
CONGRESSMAN BOB STUMP
230 First Avenue, Room 2001
Phoenix, AZ 85025

Representative Jerry Overton
Arizona House of Representatives
1700 W. Washington
Phoenix, AZ 85007

Paul B. Baker
State Pesticide Coordinator, UofA
1109 E. Helen Street
Tucson, AZ 85719

Walter D. Armer Jr.
Arizona Cattle Growers Association
HCZ Box 4105
Benson, AZ 85602

David L. Baker
P.O. Box 999
Yarnell, AZ 85362

JoAnne Brooks
707 Prescott Heights Drive
Prescott, AZ 86301

Patrick Boles
Arizona State Land Department
809-C Gail Gardner Way
Prescott, AZ 86301

Bob Brawdy
3219 E. Behrend Drive
Phoenix, AZ 85024-3994

Glynn G. Burkhardt
Arizona Mine Operators Association
9100 Indian Hills Road
Tucson, AZ 85749

David E. Brown
Arizona Antelope Foundation
3118 W. McLellan Boulevard
Phoenix, AZ 85017

Ross W. Bruner
c/o 5 E. Cairo
Tempe, AZ 85282

Alan & Barbara Chatfield
Arizona Rough Riders
6902 W. Melvin Street
Phoenix, AZ 85043

Daniel J. Burrough
The Business Journal
2910 N. Central Avenue
Phoenix, AZ 85012-2704

Dale Campbell
CS4WDC
1311 E. Palo Blanco Way
Gilbert, AZ 85296

Patrick Crouch
Arizona Game & Fish Department
7200 E. University
Mesa, AZ 85203

Paul Chennault
14239 Parkland Drive
Sun City West, AZ 85375

Jane B. Cole
Desert Botanical Garden
1201 N. Galvin Parkway
Phoenix, AZ 85008

Terry Worman
Pebble Pickin Posse
3538 W. Emig Road
Phoenix, AZ 85023

Christine and Edward Cruess
Vice President, 4WDC/AWA4WDC
6842 S. 43rd Street
Phoenix, AZ 85040-5215

Michael C. Cupell
Arizona Antelope Foundation
5242 W. Cheryl Drive
Glendale, AZ 85302

Arizona Republic
P.O. Box 1950
Phoenix, AZ 85001

Pamela Barbey, Deputy State Director
OFFICE OF SENATOR JON KYL
2200 E. Camelback Road, #120
Phoenix, AZ 85016

Vivian Burdette, Chairperson
Tonto Apache Tribe
#30 Tonto Apache Reservation
Payson, AZ 85541

Northern Arizona Council of
Governments
119 E. Aspen Avenue
Flagstaff, AZ 86001-5296

Casa Grande Dispatch
P.O. Box 15002
Casa Grande, AZ 85230

Sun City Independent
10327 W. Coggins Drive
Sun City, AZ 85351

Representative Sue Lynch
Arizona State House of Representatives
Capitol Complex
1700 W. Washington
Phoenix, AZ 85007

Carol Springer
Arizona State Senate
1700 W. Washington
Phoenix, AZ 85007

Representative Don Aldridge
Arizona State House of Representatives
Capitol Complex
1700 W. Washington
Phoenix, AZ 85007

Forest Supervisor
Tonto National Forest
2324 E. McDowell Road
Phoenix, AZ 85006

Director and State Geologist
Arizona Geological Survey
416 W. Congress Street, #100
Tucson, AZ 85701-1315

Southwestern Minerals Exploration
Association
P.O. Box 42317
Tucson, AZ 85733

Joanna Dodler
Prescott Courier
147 N. Cortez
Prescott, AZ 86301

John E. Akers
Chairman ASA4WDC
2610 W. Aurora Drive
Tucson, AZ 85746

Conservation Chair
Sierra Club - Grand Canyon Chapter
516 E. Portland Street
Phoenix, AZ 85004

Gabriel P. Zinsli
Glendale Hiking Club
6043 W. Willow
Glendale, AZ 85304

Bumble Bee Ranch Adventures
15035 N. 73rd Street
Scottsdale, AZ 85260

Chairman
Hopi Tribal Council
P.O. Box 123
Kykotsmovi, AZ 86039

Michael C. Cupell
Arizona Antelope Foundation
138 W. Wood
Phoenix, AZ 85029

Yavapai County Board of Supervisors
1015 Fair Street
Prescott, AZ 86301

Yavapai County Director of
Environmental Services
500 S. Marina Street
Prescott, AZ 86301

Bill Schenck
268 Los Pinos Road, #A
Santa Fe, NM 87505-4315

Roger Hacker
Arizona Park & Recreation
5060 N. 19th Avenue
Phoenix, AZ 85015

Alan and Barbara Chatfield
Arizona Rough Riders
6533 W. Missouri Avenue
Glendale, AZ 85301-5501

John H. Stephenson
Arizona Wildlife Federation
601 E. Appaloosa Road
Gilbert, AZ 85296

Kara Gillon
1101 14th Street NW, Suite 1400
Washington DC 20005

Larry I. Stedman
Angel's Ranch
P.O. Box 268
Wickenburg, AZ 85358

Judy Taylor
HC 34, Box 5070
Mayer, AZ 86333

Francis J. Suriano
8626 E. Meadowbrook Avenue
Scottsdale, AZ 85251

Eric Swanson
Arizona Game & Fish Department
2221 W. Greenway Road
Phoenix, AZ 85023

Ronald B. Tinseth
ASU Chapter of the Wildlife Society
Box 20a Department of Zoology
Tempe, AZ 85287

Mary V. Thomas, Governor
Gila River Indian Community
P.O. Box 97
Sacaton, AZ 85247

Stanley G. Thompson, Manager
U.S. West Communications
6350 S. Maple Avenue, Room 121
Tempe, AZ 85283

Postelle R. Vaughan
Sierra Club
6340 N. Camino Arco
Tucson, AZ 85718-3809

Gary Torhjelm & Huddy Bell
7201 E. Camelback, #305
Scottsdale, AZ 85251

Thom Valencia
Lake Pleasant Regional Park
41835 N. Castle Hot Springs Road
Morristown, AZ 85342

David L. Walker
Project Evaluation Program Supervisor
Arizona Game & Fish Department
2221 W. Greenway Road
Phoenix, AZ 85023

Jon R. Vlaming
BRW, Inc.
3003 N. Central Avenue, Suite 700
Phoenix, AZ 85012

Brian F. Wakeling
Arizona Chapter, The Wildlife Society
P.O. Box 41337
Phoenix, AZ 85080-1337

Bob & Shirley Wheat
Arizona State Rifle
2262 W. Del Oro
Mesa, AZ 85202

Roseman Knoki Warren
Bureau of Indian Affairs
10000 E. McDowell
Scottsdale, AZ 85256

Dennis J. Wells
Arizona State Land Department
1616 W. Adams Street
Phoenix, AZ 85007

Bill Schenck
5726 E. Forest
Apache Junction, AZ 85219

David Wilson
Cella Barr Association
5062 N. 19th Avenue
Phoenix, AZ 85015

Ralph A. Roselle
Motivated Investments Realty
8437 E. Monterey Way
Scottsdale, AZ 85251

Lyle E. Shaughnessy
Town of Wickenburg
P.O. Box 1269
Wickenburg, AZ 85358

Douglas E. Saffouri
Phoenix 4 Wheelers
15029 N. 54th Street
Scottsdale, AZ 85254

Randi Sanders
Century 21 Heinemann Realty
8910 N. Central Avenue
Phoenix, AZ 85020

Carl Showalter
18626 Spanish Garden Drive, #241
Sun City West, AZ 85375

Lois Scherer
15209 E. Ridgeway Drive
Fountain Hills, AZ 85268-4827

James P. Schmitt
GPAA
P.O. Box 393
Yarnell, AZ 85362

John E. Simmons
Central Arizona Project
23636 N. 7th Street
Phoenix, AZ 85024

Kenneth D. Shaw
907 W. Topeka Drive
Phoenix, AZ 85027

Wilbur Shaw
3-D Mining Company
P.O. Box 9328
Phoenix, AZ 8

Vincent Randall, Chairman
Yavapai-Apache Indian Community
P.O. Box 1188
Camp Verde, AZ 86322

Don Shroyer
Arizona Dept. of Environmental
Quality
3033 N. Central Avenue, 5th Floor
Phoenix, AZ 85012

Fred Carpenter, Town Manager
Town of Wickenburg
155 N. Tegner, Suite A
Wickenburg, AZ 85390

Gary E. Keller
AZ State Ass. of 4-Wheel Drive Clubs
531 N. Los Alamos
Mesa, AZ 85213

Leonard J. Simms
17600 N. 64th Drive
Glendale, AZ 85308

Jack H. Simon
777 W. Southern Avenue, Suite 201
Mesa, AZ 85210

Edward A. Kirwan
Phelps Dodge Corporation
2600 N. Central Avenue
Phoenix, AZ 85004-3014

Bill Jordan
Headquarters West, Ltd.
3620 Maya Circle
Kingman, AZ 86401

Bruce M. Kabana
Arizona Rough Riders
7221 W. Palo Verde Avenue
Peoria, AZ 85345

Mark A. Lewis
Western Land Grant
2515 E. Thomas Road, #16-852
Phoenix, AZ 85016

William T. Kendall
Arizona Department of Agriculture
400 W. Congress, Suite 124
Tucson, AZ 85701

John C. Kirk
Fort McDowell Sand & Gravel
P.O. Box 17150
Fountain Hills, AZ 85269

Dale L. Longbrake
Red Mountain Mining, Inc.
4250 N. Bush Highway
Mesa, AZ 85205

Richard Knopf
Arizona State University West
4701 W. Thunderbird Road
Phoenix, AZ 85023

Pete Lahm
ADEQ
3033 N. Central
Phoenix, AZ 85012

Robert S. Lynch
Attorney at Law
2001 N. 3rd Street, Suite 204
Phoenix, AZ 85004-1472

Preserve Manager
Hassayampa River Preserve
P.O. Box 1162
Wickenburg, AZ 85358

Enalo Lockard
Yavapai County
255 E. Gurley
Prescott, AZ 86301

Paul C. Marsh
Arizona State University
Center for Environmental Studies
Tempe, AZ 85287-3211

Bill Lowell-Britt
2308 S. El Camino Circle
Tempe, AZ 85282

Linda M. Luik
ASA4WDC
1633 E. Ivyglen Street
Mesa, AZ 85203

Sandee and John McCullen
Secretary, ASA4WDC
4025 E. Glade Circle
Mesa, AZ 85206

Tony Machukay
Arizona Commission of Indian Affairs
1645 W. Jefferson, Suite 127
Phoenix, AZ 85007

Ivan Makil, President
Salt River Pima-Maricopa Community
10005 E. Osborn
Scottsdale, AZ 85256

John A. Murphy Jr.
Murphy & Posner
3200 E. Camelback, Suite 300
Phoenix, AZ 85018

Charles R. May
Queen Sheba Mines
58 W. Edgemont
Phoenix, AZ 85003

Diane McCarthy
President, WESTMARC
9017 N. 57th Drive
Glendale, AZ 85302

William R. Peck
United Metro Materials
P.O. Box 52140
Phoenix, AZ 85072-2140

Jeff McGuire
P.O. Box 1046
Sun City, AZ 85372

Carol Ann Muller
13838 N. 8th Place
Phoenix, AZ 85022-4307

Barry S. Devenney
Outreach Coordinator, R.E.I.
1405 W. Southern Avenue
Tempe, AZ 85282

Robert F. Nuth
Desert Caballeros
P.O. Box 974
Wickenburg, AZ 85358

Clinton Pattea, President
Fort McDowell Mohave-Apache
P.O. Box 17779
Fountain Hills, AZ 85269

Scott W. Donaldson
Attorney at Law
5050 N. 19th Avenue, Suite 409
Phoenix, AZ 85015-3209

Robert T. Pielage
2122 E. Sesame Street
Tempe, AZ 85283

Melodee A. Ramey
ASA4WDC
2610 W. Aurora Drive
Tucson, AZ 85746

Bruce Ellis
Chief Environmental Resource
Division
Bureau of Reclamation PXAO-1500
P.O. Box 81169
Phoenix, AZ 85069-1169

Lesley Dimare
7374 E. Stara Drive
Scottsdale, AZ 85255

Jeo DiVito
Arizona Department of Transportation
2140 W. Hilton Avenue
Phoenix, AZ 85009

Bill Feldman
President, Arizona Native Plant Soc.
37615 U.S. 60
Superior AZ 85273

Jack M. Doughty
Three Rivers Agriculture Investments
777 E. Thomas Road, #210
Phoenix, AZ 85014

Bill Dowdle
Arizona State Land Department
1616 W. Adams
Phoenix, AZ 85007

Tim Flood
Friends of Arizona Rivers
503 E. Medlock Drive
Phoenix, AZ 85012-1512

Liz Elms
c/o 808 E. Vaughn Avenue
Gilbert, AZ 85234

Joseph M. Feller
Professor, College of Law
Arizona State University
Box 877906
Tempe, AZ 85287-7906

John R. Freemon
Verde Valley 4 Wheelers
Box 431
Rimrock, AZ 86335

Leon Graton
P.O. Box 1105
Black Canyon City, AZ 85324

Donald H.J. Hazelton
7 S. Golden Key Drive
Gilbert, AZ 85233

Don R. Hicks
Copperstate 4 Wheel Drive Club
P.O. Box 573
Mesa, AZ 85211-0573

Richard & Lois Holten
808 E. Vaughn Avenue
Gilbert, AZ 85234

Jerry Huddleston
ASA4WDC
P.O. Box 2234
Payson, AZ 85547

Richard A. Isaacson
8221 W. Turney Avenue
Phoenix, AZ 85033-2216

Robert D. Faires
Land Services
42833 N. 7th Street
Phoenix, AZ 85027-7329

Landi Fernley
SW Center for Biological Diversity
P.O. Box 17839
Tucson, AZ 85731-7839

James Garrison
SHPO, Arizona State Parks
1300 W. Washington
Phoenix, AZ 85007

Jerry L. Haggard
Apker, Haggard & Kurtz, P.C.
2111 E. Highland, Suite 230
Phoenix, AZ 85016

Barbara S. Heslin
Arizona Game & Fish Department
7200 E. University
Mesa, AZ 85207

Bob Hobson
Pleasant Harbor
3828 N. 28th Avenue
Phoenix, AZ 85017

Bob Horvath
5776 E. Forest
Apache Junction, AZ 85219

Richard L. Hudgins
6915 W. Lower Buckeye Road
Phoenix, AZ 85043

Eugene T. Jensen
Sun City Hikers Club
10120 Clair Drive
Sun City, AZ 85351-4531

Dale B. Gazzolo
Director, AOHVA
Arizona Off-Highway Vehicle
Association
9430 E. Golf Links Road, STE 230
Tucson, AZ 85730-1357

Nicki Hansen
Arizona State Land Department
1616 W. Adams
Phoenix, AZ 85007

Daniel L. Hess
P.O. Box 171
Wickenburg, AZ 85358-0181

James Holst
Yavapai City Administration Center
255 E. Gurley Street
Prescott, AZ 86301

George M. Howard
P.O. Box 2628
Wickenburg, AZ 85358

Jeff S. Inwood
Environmental Scientist
ASC Hydrologic & Environmental
Services
1130 E. Missouri, #110
Phoenix, AZ 85014-2714

Alene M. Jones
Arizona State Mine Inspector
1700 W. Washington, Suite 400
Phoenix, AZ 85007

Roger Hacker, Executive Director
Arizona Park & Recreation
Association
3124 E. Roosevelt
Phoenix, AZ 85008

Arthur L. Arnold
Arnold Allotment
26551 W. Hazen Road
Buckeye, AZ 85021

Michael R. Dawson
320 Pacifico Circle
Litchfield Park, AZ 85340

Dorothy Devault
People of the West
P.O. Box 1498
Wickenburg, AZ 85358

Buckeye Pollution Control Corp.
P.O. Box 122283
Fort Worth, TX 76121-2283

John Utz
Big Horn Allotment
Paloma Ranch
HC-01 Box 175
Gila Bend, AZ 85337

Seibert Revocable Trust
Seibert Allotment
Hazen Allotment
702 W. Las Palmaritas
Phoenix, AZ 85326

Town Manager
Town of Gila Bend
644 W. Pima Street
Gila Bend, AZ 85337-0019

Wayne A. Rice
Box 556
Fressenden, ND 58438-0556

80 Investment Company
10031 N. 56th Drive
Glendale, AZ 85302-2104

James P. McFadden, Complex
Warden
ASPC-Lewis
26700 S. Highway 85
Buckeye, AZ 85326

Don & Marie Abrams
17738 W. San Esteban Drive
Goodyear, AZ 85338-9677

Danco Farms
P.O. Box 786
Litchfield Park, AZ 85340-0097

Michael Anable, Commissioner
Arizona State Land Department
1616 W. Adams Street
Phoenix, AZ 85007

Gordon Taylor, Planner
Arizona State Land Department
1616 W. Adams
Phoenix, AZ 85007

Joy Rich, AICP, Director
Planning and Development Dept.
Maricopa County
301 W. Jefferson
Phoenix, AZ 85003

Dennis Smith, Assistant Director
Maricopa Association of Governments
302 N. 1st Avenue, Suite 300
Phoenix, AZ 85003

J.B. Getzwiler, President
Chamber of Commerce
P.O. Drawer CC
Gila Bend, AZ 85337

Michael Ellegood, Chief Engineer
Flood Control District of Maricopa
County
2801 W. Durango Street
Phoenix, AZ 85003

Cindy Lester, Chief
Arizona Section Regulatory Branch
U.S. Army Corps of Engineers
3636 N. Central Avenue, Suite 760
Phoenix, AZ 85012

Stephen Marshall, Superintendent
Gila Bend Unified School District
#24
308 N. Martin Avenue
Gila Bend, AZ 85337

Mary Lynn Tischer, Director
Transportation Planning Division
ADOT
206 S. 17th Avenue
Phoenix, AZ 85007

Ray Presnell, Lead Specialist
El Paso Natural Gas Company
7015 S. 48th Street
Phoenix, AZ 85044

William Scalzo, Director
Maricopa County Parks & Rec. Dept.
3475 W. Durango Street
Phoenix, AZ 85009

Tom Buick, Director
Maricopa County Department
2901 W. Durango Street
Phoenix, AZ 85009

Brad Dugas, Allied Waste Industries
Southwest Regional Landfill
24427 S. Highway 85
Buckeye, AZ 85326

Matt Holm, Planner
Planning and Development Dept.
Maricopa County
301 W. Jefferson
Phoenix, AZ 85003

Jason Lipsey
Southwest Agribusiness Services, Inc.
2845 E. Camelback Road, Suite 700
Phoenix, AZ 85016

Paul Herndon
APS
P.O. Box 53999, MS 4609
Phoenix, AZ 85072-3999

Liz Zeller, Planner
Town of Buckeye
100 N. Apache Road
Buckeye, AZ 85236-9699

Richard DeBoer, Project Monitor
Arizona Department of Transportation
2801 W. Durango Street
Phoenix, AZ 85003