

CHAPTER 1

INTRODUCTION, PURPOSE AND NEED

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CHAPTER 1 INTRODUCTION, PURPOSE AND NEED

1.1 INTRODUCTION

1.1.1 Project Overview

Arizona Public Service Corporation (APS or Applicant) is proposing the development of approximately 38 miles of transmission line to increase the reliability of the high-voltage transmission system in the northwestern Phoenix metropolitan area. The proposed APS Sun Valley to Morgan 500/230kV Transmission Line Project (Proposed Action or Project) would establish a 500 Kilovolt (kV) and 230kV connection, constructed mainly on single-pole structures between two substations (the Sun Valley Substation [formerly called TS-5] and the existing Morgan Substation [formerly called TS-9]). The approved Sun Valley Substation will be located in the northwest portion of the Town of Buckeye and the existing Morgan Substation is located in the City of Peoria. Generally the transmission line would head north-northeast out of the Sun Valley Substation to north of State Route (SR) 74 and then east to the Morgan Substation. The Project location is shown in **Figure 1.1-1** (found in the Figures section of Volume II).

The Project would require a new right-of-way (ROW) or easement on federal, state, and private lands. The construction ROW would be approximately 200 feet wide, but could be somewhat wider where terrain poses engineering or construction constraints. The permanent and operational ROW width is proposed to be 200 feet wide and would cross approximately seven miles of public lands, north and south of SR 74 in the northeastern part of the Project Area and approximately two miles of public lands in the southwestern portion of the Project Area near the Sun Valley Substation location (**Figure 1.1-1**). Because the ROW over public lands is needed to complete APS' proposed Project, which spans approximately 38 miles on mostly non-public lands, the National Environmental Policy Act (NEPA) requires analysis of the entire transmission line route, including impacts to non-public lands. However, any decision issued by the Bureau of Land Management Hassayampa Field Office (BLM HFO) would only affect that portion of the Project occurring on BLM-managed public lands. The transmission line may include steel monopole, H-frame, or lattice structures. Typical structure heights would be between 135 and 195 feet tall with spans between structures typically ranging from 800 to 1,400 feet, depending on terrain or other considerations. Until final design and the specific ROW are determined, actual structure types and locations cannot be specifically identified.

The BLM HFO has determined that the Project may also require approval of an amendment to the Bradshaw-Harquahala Resource Management Plan (RMP) in addition to a ROW application approval. In order to comply with its requirements under NEPA, the BLM has determined that this Environmental Impact Statement (EIS) will be prepared for the Project because it is a major federal action.

1.1.2 Project History

Population growth and continued expansion of urban development into previously undeveloped areas in Arizona have increased the demand for electric transmission resources. According to the United States (U.S.) Census Bureau (2012a), Arizona's population increased by 24.5 percent between 2000 and 2010. This growth rate is second only to Nevada, which showed a 35 percent increase over that same time period. In response to this trend, APS identified a need for added electric transmission capacity to relieve transmission congestion, improve the reliability of the transmission network, and provide power to expanding urban areas.

From early 2007 through 2009, APS conducted feasibility studies within a study area of approximately 400 square miles, coordinated with appropriate agencies, and completed public involvement activities related to the Project (formerly the TS-5 to TS-9 500/230kV Transmission Line Project).

The development of the Bradshaw-Harquahala RMP included multiple public meetings with comment opportunities during an eight-year planning period. The Proposed RMP and Final EIS, published in August 2008, provides management direction for public lands including the APS study area, and also establishes designated corridors for major utilities. Following the issuance of the Final RMP, the City of Peoria protested the plan for failing to establish a utility or multiuse corridor along SR 74 where the RMP was designating a transportation corridor in the same area. The Director of the BLM dismissed that protest because establishing a utility or multiuse corridor had not been raised during the planning process and thus, this issue was not considered during the development of the RMP. In addition, the Record of Decision (ROD) for the Programmatic EIS for Designation of Energy Corridors on Federal Lands in 11 Western States (BLM 2009a) did not identify a utility corridor along SR 74.

In July 2008, APS submitted an application for a Certificate of Environmental Compatibility (CEC) for the Project to the Arizona Power Plant and Transmission Line Siting Committee (Siting Committee), based on the requirements specified in Arizona statutes. The APS application proposed a preferred route and three alternative routes. In March 2009, after an extensive public review process, the Siting Committee, and ultimately the Arizona Corporation Commission (ACC), approved a transmission line route that was different from the APS proposed route. The certificated route incorporated components of the proposed route included in the APS CEC application, and also included lands not located in a BLM designated utility corridor. The public lands included in the ACC-certificated route are located in two separate areas: 1) approximately two linear miles near the Sun Valley Substation within a BLM-designated multiuse corridor, north of the Central Arizona Project (CAP) canal in Buckeye, and 2) a block of public land parallel to SR 74 in the City of Peoria and unincorporated Maricopa County not within an existing utility corridor and having BLM designated Class III visual resource values, but within an existing transportation corridor to allow for future expansion of SR 74. In addition to crossing BLM-managed public lands, the ACC-certificated route ("certificated corridor") crosses other lands, the majority of which are Arizona State Trust lands, as well as some U.S. Bureau of Reclamation (USBR) lands, and privately owned lands.

On April 29, 2009, APS filed a ROW Application for Transportation and Utility Systems and Facilities on Federal Lands (SF-299) with the BLM to construct a 500/230kV transmission line within the ACC-certificated route. At that time, the APS application was not in conformance with the existing Phoenix RMP (BLM 1988) that the HFO was working under until the ROD for the new RMP could be signed and implemented. The BLM's new land use plan for this area, the Proposed Bradshaw-Harquahala RMP and Final EIS (BLM 2008a) also did not include a utility corridor for the proposed route across BLM-managed public land along SR 74. The application was, therefore, considered not in conformance with the new plan as well and could not be processed without amending the plan.

In April 2010, the ROD for the approved RMP was signed. However, because the approved RMP still did not establish a utility corridor in the area where the ACC-certificated its route, the BLM rejected APS' ROW application based on the proposal not being in conformance with the approved RMP. In May 2010, APS appealed BLM's rejection of the ROW application to the Interior Board of Land Appeals (IBLA) and in October 2010, IBLA remanded the decision back to BLM indicating that the decision rationale required more detail. In December 2010, BLM agreed to consider an RMP amendment (RMPA) and process the ROW application, then subsequently determined that an EIS is warranted for this Project A Notice of Intent (NOI) to prepare an EIS for the Project and RMPA was published in the Federal Register on April 11, 2011 (76 FR 20006-20007).

1.2 APPLICANT'S OBJECTIVE

The transmission line would establish a 500kV and 230kV connection between two substations (the approved Sun Valley Substation [formerly called TS-5] and the existing Morgan Substation [formerly called TS-9]). The 500kV transmission line was identified in APS' 2003 Ten-Year Transmission System Plan filed with the ACC in January of that year. Additionally, in APS' Renewable Transmission Action Plan submitted to ACC in 2009, the Sun Valley to Morgan 500kV transmission line was identified as a project that could be beneficial to renewable resource development in Arizona because the transmission line would connect renewable resource generation projects to the Phoenix metropolitan area load center (APS 2009). According to APS, the connection between the Sun Valley and Morgan Substations would be the final segment in completing a continuous 500kV supply from the Palo Verde hub area (this hub creates a common location for commercial energy trading) to the northeast Phoenix metropolitan area (Pinnacle Peak Substation). The 500kV connection would increase the import capability (i.e., the transfer of electric energy) to the Phoenix metropolitan area and increase the export capability from the Palo Verde hub by approximately 600 megawatts (MW). This capability would increase to approximately 1,200 MW when combined with APS' Delaney to Sun Valley 500kV Transmission Line, which is scheduled to be in service by 2014. Because existing or other planned 500kV transmission lines in the system are almost fully committed to other generation sources, this 500kV line would facilitate the delivery of electricity from projected renewable energy resources. With over 1,500 MW of solar generation interconnection requests at the Delaney Substation (located between the Palo Verde hub and Sun Valley Substation), additional export and scheduling capability is necessary to facilitate delivery of electricity from proposed solar energy projects to electric load centers.

The 500kV transmission line would increase the reliability of the electrical infrastructure in Arizona by providing another 500kV source to the Pinnacle Peak Substation. This would be in addition to the sources from the northern Navajo and Four Corners generating stations that can be subject to system outages or wildfires along transmission lines. Additionally, in conjunction with the transmission system operated by Salt River Project, the 500kV circuit would increase the reliability of the extra-high voltage (EHV) transmission system. This would be accomplished by completing a 500kV loop that connects the Palo Verde Transmission system, the Southern Navajo Transmission system, and the Southern Four Corners system, thereby increasing reliability in the transmission grid to support the greater metropolitan Phoenix area.

The co-located 230kV transmission line would serve future load that is expected to develop in currently undeveloped areas in the Town of Buckeye, City of Surprise, City of Peoria, and unincorporated Maricopa County, as identified in APS' Renewable Transmission Action Plan. It would tie together the existing and planned 230kV and 69kV systems in the northwest Phoenix metropolitan area, thus providing additional reliability along with increased load serving capability. APS currently has no 230kV facilities in the majority of this portion of the Phoenix metropolitan area.

According to APS, the co-location of the 500kV and 230kV lines on the same structures would provide savings in ROW and easement costs to ratepayers, in contrast to the inefficiencies of building two separate transmission lines and ROWs. It also eliminates future 230kV line siting efforts, which would become more difficult as the area is developed.

1.3 BLM'S PURPOSE AND NEED

1.3.1 Purpose of the BLM Action

The purpose of the BLM action is to respond to the APS request for access across public lands in order to construct, maintain, and decommission a co-located 500/230kV transmission line between the Sun Valley and Morgan Substations. The BLM would only be issuing decisions on those portions of the APS request that involve a ROW on public lands.

1.3.2 Need for the BLM Action

The need for the BLM action is established by the BLM's responsibility under the Federal Land Policy and Management Act (FLPMA) (43 USC § 1761) to respond to a request for a ROW grant while avoiding or minimizing adverse impacts to other resource values and to locate the uses in conformance with land-use plans. FLPMA also requires that the BLM "develop, maintain, and when appropriate, revise land-use plans" (43 USC §1712). An amendment to the 2010 Bradshaw-Harquahala RMP would be necessary because a utility corridor on public land in the location of the certificated route approved by the ACC along SR 74 was not established and high-voltage transmission lines crossing public land are required to be within designated utility corridors under the current RMP. In addition, the existing Visual Resource Management (VRM) Class designation would need to be amended from VRM Class III to VRM Class IV for those public lands where views would be dominated by the transmission line, and thus would not meet the current VRM objectives.

The VRM Class designation would also be changed for those public lands north and south of SR 74 surrounding the proposed transmission line ROW (i.e. existing transportation corridor north of SR 74 and the key-shaped public land piece south of SR 74) in order to avoid creating narrow linear strips designated as different VRM Classes. Approximately 3,375 acres would be changed from VRM Class III to VRM Class IV.

1.4 LEAD AND COOPERATING AGENCIES

The BLM is the lead federal agency responsible for preparing this EIS and associated analyses. The HFO is the lead office, responsible for consultations required by Section 7 of the Endangered Species Act of 1973 (ESA), as amended, and Section 106 of the National Historic Preservation Act of 1966 (NHPA), as amended.

Cooperating agencies include those federal, state, or local agencies that have jurisdiction by law and/or special expertise (40 Code of Federal Regulations (CFR) Section 1508.5). Those with jurisdiction by law will make their own decisions to approve or deny all or part of the Project. Those with special expertise or information have and will continue to assist in development of the analysis. In March 2011, the BLM sent letters to numerous agencies at the federal, state, and local level inviting participation as a cooperating agency in preparation of the EIS. A total of 33 agencies were sent a letter inviting them to participate as a cooperating agency. Six agencies have accepted: U.S. Air Force - Luke Air Force Base (LAFB), the U.S. Environmental Protection Agency (EPA), the Arizona State Land Department (ASLD), the Maricopa Association of Governments (MAG), the City of Peoria, and the City of Surprise. **Chapter 5 – Consultation and Coordination** contains a list of those invited to participate as cooperating agencies.

1.5 REGULATORY FRAMEWORK

1.5.1 NEPA and Plan Amendment Process

This EIS was prepared in accordance with NEPA and in compliance with the Council of Environmental Quality (CEQ) regulations (40 CFR §§ 1500–1508), Department of Interior (DOI) requirements (43 CFR Part 1600; Department Manual 516, [DOI 2009a]), guidelines listed in the BLM NEPA Handbook, H-1790-1 (BLM 2008b); and in the BLM Land Use Planning Handbook, H-1601-1 (BLM 2005). Under NEPA, federal agencies must consider the environmental effects of their actions. NEPA directs federal agencies to “utilize a systematic, interdisciplinary approach...in planning and decision-making, which may have an impact on man’s environment, to ensure that environmental amenities and values...be given appropriate consideration in decision-making along with economic and technical considerations,” and to “study, develop, and describe appropriate alternatives to recommended courses of action.” This mandate applies to all “major federal actions” (43 CFR, Part 1500).

The preparation of an EIS follows a formal process consisting of nine major steps. The steps listed below include the BLM's ROW and RMPA process.

1. Issue an NOI to prepare an EIS and RMPA;
2. Conduct public and agency scoping;
3. Conduct an interdisciplinary analysis of the issues and alternatives;
4. Issue the Notice of Availability (NOA) for the Draft EIS and Draft RMPA;
5. Provide for public review and a 90-day comment period;
6. Review public input, prepare responses, and make necessary changes to the Draft EIS and Draft RMPA;
7. Issue a NOA for the Final EIS and RMPA;
8. Provide for a 30-day review/protest period on the Final EIS and RMPA and a concurrent 60-day Governor's consistency review of the RMPA; and,
9. Issue a ROD regarding the ROW grant and RMPA.

The EIS Decision Framework

This EIS analyzes and discloses the environmental impacts of the Proposed Action, the No Action Alternative, and other Action Alternatives (all alternatives are described in detail in **Chapter 2**) and is intended to encourage public participation in the BLM's decision-making process. It provides an analysis of impacts that would result from the implementation of the Proposed Action and other alternatives, describes mitigation measures that have been identified to address environmental consequences, and describes the Agency Preferred Alternative.

The RMPA and EIS processes will inform two decisions to be made by the BLM. First, BLM will decide whether or not to amend the Bradshaw-Harquahala RMP, as necessary, for the proposed route on public land north and south of SR 74 to: a) include a single-use, utility corridor on public lands that would support a 500/230kV transmission line between the Sun Valley and Morgan Substations, or b) include a multiuse utility corridor that would contain the requested 200-foot wide ROW; and c) change the VRM Class from VRM Class III to VRM Class IV, as necessary, of the area affected by the corridor. Second, BLM will decide whether or not to approve, deny, or approve the APS ROW application with modifications, or select another alternative. These decisions are summarized in **Table 1.5-1**.

Table 1.5-1 Decisions to be Made

LAND USE PLANNING DECISION OPTIONS	SITE-SPECIFIC DECISION OPTIONS
<ul style="list-style-type: none"> • Amend the Bradshaw-Harquahala RMP to add a single-use, utility corridor corresponding to the requested 200-foot wide ROW on public land north and south of SR 74. • Amend the Bradshaw-Harquahala RMP to add a multiuse utility corridor that would contain the requested 200-foot wide ROW on public land north and south of SR 74. • Do not amend the Bradshaw-Harquahala RMP to add a utility corridor. Existing corridors would remain intact. • Amend the Bradshaw-Harquahala RMP to change the existing VRM Class of the affected area from VRM Class III to VRM Class IV. • Do not amend the Bradshaw-Harquahala RMP to change the existing VRM Class of the affected area from VRM Class III to VRM Class IV. 	<ul style="list-style-type: none"> • Grant the ROW request on public lands as submitted, including ROWs for potential access roads and associated gates. • Grant a modified ROW on public lands for a selected Action Alternative, including ROWs for potential access roads and associated gates. • Deny the ROW request by selecting the No Action Alternative or an Action Alternative that does not require the use of public land.

1.5.2 Relationship to Policies, Plans, and Programs

BLM

The FLPMA mandates that the BLM manage public lands on the basis of multiple use and sustained yield (43 USC § 1701[a] [7]). The BLM administers approximately 262 million acres of public land in the United States. This administrative responsibility consists of stewardship, conservation, and resource use, including the development of energy resources, in an environmentally sound manner.

The BLM HFO prepared the Approved Bradshaw-Harquahala RMP to provide comprehensive current and future management direction for the public lands administered by the HFO (BLM 2010a). The Bradshaw-Harquahala RMP directs management of the federal surface and mineral estate managed by the HFO, primarily within Maricopa and Yavapai counties in central and western Arizona with the westernmost lands extending into La Paz County. The HFO planning boundaries encompass more than 3 million acres, and the Bradshaw-Harquahala Planning Area encompasses 896,100 surface acres of BLM-administered lands north and west of Phoenix in central western Arizona. The area includes remote and undeveloped desert and mountain ranges, as well as wildland-urban interface

zones near the cities of Phoenix and Prescott, towns of Buckeye and Wickenburg, and other communities. These lands provide a wide range of recreational activities and natural and cultural resources to the public.

The Proposed Action and certain Action Alternatives would take place in the BLM-designated Castle Hot Springs Management Unit, which is managed under the Bradshaw-Harquahala RMP (BLM 2010a). The Bradshaw-Harquahala RMP allows for multiple uses of public lands and does not prohibit the development of transmission lines on public lands, although amendments to the RMP may be necessary.

The BLM Lower Gila North Management Framework Plan, June 1981 was also reviewed.

Federal Agency Management Plans

Although the Project would not use lands under the direct jurisdiction of LAFB, a portion of the Proposed Action does lie within the extended Accident Protection Zone (APZ) of Luke Auxiliary Field #1. Because compatible land uses within the extended APZ include communication facilities and utilities with height restrictions determined by local jurisdictions, the Proposed Action and all Action Alternatives presented in this EIS avoid the APZ and are thus compatible with the LAFB Clear Zone and APZs.

Local Jurisdictional Plans

Each of the jurisdictional plans reviewed for this EIS are listed below. Other planning documents were reviewed for additional context or information related to the future uses that were identified in the general plans.

The Proposed Action would traverse land under the planning jurisdictions of Maricopa County, Town of Buckeye, City of Peoria, and City of Surprise. It should be noted that the Proposed Action centerline in most instances follows section lines, which in some locations also represent boundaries between the planning jurisdictions. Therefore, actual planning jurisdiction crossed by the Proposed Action or Action Alternative routes may vary based on where actual ROWs are acquired.

- Maricopa County 2020, Eye to the Future, Comprehensive Plan, October 1997, revised August 2002 (Maricopa County 2002). The Proposed Action and Action Alternatives presented in this EIS are compatible with the Maricopa County 2020 Comprehensive Plan because the Plan does not specifically limit or restrict the location of transmission lines.
- Maricopa County 2020, Eye to the Future, White Tank/Grand Avenue Area Plan, December 2000 (Maricopa County 2000). The Proposed Action and Action Alternatives presented in this EIS are compatible with the Maricopa County 2020 White Tank/Grand Avenue Area Plan because the Plan does not specifically limit or restrict the location of transmission lines.
- Town of Buckeye General Plan Update, adopted January 2008 (Town of Buckeye 2008). The Proposed Action and Action Alternatives presented in this EIS are compatible with the Town of Buckeye 2008 General Plan Update because the Plan does not specifically limit or restrict the location of transmission lines. The

Plan recognized the need for future transmission line improvements and stated: “The Town would begin working with all the energy utilities within its jurisdiction and Planning Area to develop a comprehensive and coordinated Plan for the siting of additional infrastructure that will be necessary to meet the energy demands of the Town (at full build-out), the region and the Western Grid.”

- City of Peoria General Plan, voter ratified in May 2001 and re-ratified in August 2010 (City of Peoria 2010). The Proposed Action and Action Alternatives presented in this EIS are compatible with the City of Peoria General Plan because the Plan does not specifically limit or restrict the location of transmission lines. The Plan recognized the need for future transmission line improvements and included the Proposed Action corridor on a revised Land Use map dated September 2008, printed June 2009.
- City of Surprise General Plan 2030, adopted July 2008 (City of Surprise 2008a). The Proposed Action and Action Alternatives presented in this EIS are compatible with the City of Surprise General Plan because the Plan does not specifically limit or restrict the location of transmission lines. The Plan recognized the need for future transmission line improvements and included a common sense approach that includes goals and policies such as: encourage utilities to maximize the use of existing utility corridors; locate near roadways; minimize corridor widths; select locations that reduce visual impacts; and other recommendations to consider when locating transmission lines.
- Maricopa Association of Governments (MAG) Regional Transportation Plan (MAG 2010); MAG Interstate 10-Hassayampa Valley Transportation Framework Study (MAG 2007); and the Arizona Department of Transportation (ADOT) SR-74 Final Feasibility Right-of-way Preservation Report (ADOT 2011). The Project alternatives transverse SR 74 and cross six future Arizona parkways planned in the Study Area. The interaction of these transportation facilities could have potential impacts on the proposed alternatives.

State of Arizona

The ACC’s Renewable Energy Standard and Tariff Rules (ACC R14-2-1801–1815), along with other renewable energy mandates, call on the State’s electric utilities to produce 15 percent of their electricity from renewable sources by 2025. Additional export and scheduling capability is necessary to facilitate delivery of proposed solar energy to load centers in Arizona; therefore, the Proposed Action and Action Alternatives would assist the State’s electric utilities in meeting this goal and would be consistent with State of Arizona objectives related to renewable energy development.

1.5.3 Applicable Laws and Regulations

The Proposed Action and Action Alternatives must comply with numerous federal laws, statutes, regulations, and executive orders (EO) as outlined in **Table 1.5-2**.

Table 1.5-2 Federal Laws, Statutes, Regulations, and Executive Orders with which the Proposed Action and All Action Alternatives Must Conform

LAWS AND REGULATIONS	STATUTORY REFERENCE
Federal Laws and Statutes	
American Indian Religious Freedom Act of 1978	Public Law [PL] 95-341; 42 USC § 1996
Antiquities Act of 1906	16 USC 431 et seq.
Archaeological and Historic Data Preservation Act of 1974	PL 86-253, as amended by PL 93291; 16 USC § 469
Archeological Resources Protection Act, as amended	16 USC 470aa et seq.
Bald and Golden Eagle Protection Act of 1940	16 USC §§ 668–668d, 54 Stat. 250, as amended; and PL 95-616 (92 Stat. 3114)
Clean Air Act of 1990	PL 92-574; 42 USC 7401 et seq.
Clean Water Act	33 USC 1251 et seq.
Colorado River Basin Salinity Control Act of 1974	PL 93-320
Department of Transportation Act of 1966	PL 95-341; 42 USC § 1996
Endangered Species Act of 1973	PL 85-624; 16 USC §§ 661, 664, 1008
Energy Policy Act of 2005	PL 109-59
Farmland Protection Policy Act	PL 97-98 and 7 CFR § 658
Federal Land Policy and Management Act of 1976	PL 94-579; 43 USC § 1701 et seq.
Federal Noxious Weed Act of 1974 as amended by the Food, Agriculture, Conservation and Trade Act of 1990	USC 2801 et. seq.
Federal Plant Pest Act	7 USC 150aa et. seq.
Historic Sites Act of 1935	PL 292-74; 16 USC §§ 461–467
Land and Water Conservation Fund Act of 1965	PL 88-578
Migratory Bird Treaty Act of 1918	16 USC §§ 703–712, as amended
National Environmental Policy Act of 1969, as amended	PL 91-190, as amended by PL 94-52, PL 94-83, and PL 97-258; 42 USC § 4321

LAWS AND REGULATIONS	STATUTORY REFERENCE
National Historic Preservation Act of 1966	PL 89-665; 16 USC § 407(f)
Native American Graves Protection and Repatriation Act of 1990	25 USC 3001-30013 et seq.
Noise Control Act of 1972, as amended	42 USC 4901 et seq.
Noxious Weed Control and Eradication Act	PL 108-412
Nuisance Prevention and Control Act of 1990 as amended	16 USC 4701 et. seq.
Occupational Safety and Health Act	29 USC 651 et seq. (1970)
Pollution Prevention Act of 1990	42 USC 13101 et seq.
Safe Drinking Water Act of 1974	42 USC s/s 300f et seq.
Safe, Accountable, Flexible, Efficient Transportation Equity Act	PL 109-59
Executive Orders	
Actions to Expedite Energy-related Projects	EO 13212
Consultation and Coordination with Indian Tribal Governments	EO 13084 EO 13175
Federal Actions to Address Environmental Justice in Minority Populations and Low-income Populations	EO 12898
Federal Compliance with Pollution Control Standards	EO 12088
Flood Hazard Evaluation Guidelines	EO 11296
Floodplain Management	EO 11988
Indian Sacred Sites	EO 13007
Intergovernmental Review of Federal Programs	EO 13272
Invasive Species	EO 13112
Preserve America	EO 13287
Protection and Enhancement of Environmental Quality	EO 11514
Protection and Enhancement of the Cultural Environment	EO 11593

LAWS AND REGULATIONS	STATUTORY REFERENCE
Protection of Wetlands	EO 11990
Responsibilities of Federal Agencies to Protect Migratory Birds	EO 13186
Use of Off-Road Vehicles on the Public Lands	EO 11644
Federal Regulations and Guidance	
BLM Land Use Planning Handbook	H-1601-1
BLM Land Use Permits and Leases	43 CFR 2920
BLM NEPA Handbook	H-1790-1
DOI Implementing NEPA Regulations	43 CFR Part 46
BLM Rights-of-Way Principles and Procedures	43 CFR 2800, as amended
Council on Environmental Quality General Regulations Implementing NEPA	40 CFR §§ 1500–1508
Floodplain Management	43 CFR § 6030
Prime and Unique Farmlands	7 CFR § 658
Protection of Historic Properties	36 CFR § 800
Responsibilities, and the Endangered Species Act (June 5, 1997)	Secretarial Order 3206
Section 404 of the Clean Water Act and Its Implementing Regulations	33 CFR §§ 320–331 and 40 CFR § 230

1.5.4 Permits Required or Potentially Required

To implement any of the Action Alternatives analyzed in this EIS, APS must acquire applicable federal, state, county, and local permits and other approvals, as necessary. Applicable or potentially applicable approvals (permits, licenses, compliance, or reviews) are listed in **Table 1.5-3**.

Table 1.5-3 Summary of Potentially Required Local, State, or Federal Permits, Licenses, or Authorizations

APPROVAL AGENCY	PERMIT POTENTIALLY REQUIRED	REGULATORY REQUIREMENT	PROJECT TRIGGER
Federal			
Bureau of Land Management	ROW Grant Land Use Plan Amendment	43 USC § 1761-1771	Request for ROW across BLM land
Bureau of Reclamation	Permit to cross the Central Arizona Project Canal	43 USC § 1761-1771	Request for ROW across USBR land
U.S. Army Corps of Engineers	Section 404 permit	Clean Water Act 33 USC 1251 et seq. 2	Impacts to jurisdictional Waters of the U.S.
U.S. Fish and Wildlife Service	Biological Opinion	Endangered Species Act 16 USC § 1531-1544	Potential to impact threatened or endangered species
Federal Aviation Administration	Permits	49 USC Sec 44718 and Title 14 CFR Pt 77	Obstruction standards, Hazards to air navigation
State			
Arizona Department of Environmental Quality	Arizona Pollutant Discharge Elimination System stormwater permit for construction	Clean Water Act - Arizona Revised Statutes Title 49, Section 49-202	Required for construction activities impacting one acre or more
Arizona Department of Environmental Quality	Hazardous waste generator registration	Hazardous Waste Control Act of 1972 Arizona Administrative Code: Title 18, Chapter 8	Generation, storage and tracking of hazardous waste disposal during project construction and operation
Arizona Department of Agriculture	Application for Arizona Protected Native Plants and Wood Removal	Arizona Revised Statutes – Native Plant Law ARS Article 11 (§ R3-3-110- through R3-3-1111, Appendix A)	Displacement or removal of any native plant species
Arizona Corporation Commission	Certificate of Environmental Compatibility	Title 40, Chapter 2, Article 6.2 (sections 40-360 through 40-360.13), ARS	Transmission lines with more than two poles and greater than 115kV, or power generation facilities of 100 MW or larger
Arizona State Land Department	ROW Application	Title 37, Chapter 2, Article 10 (Section 37-461A), ARS	Required for utility and access road construction on State Trust land

APPROVAL AGENCY	PERMIT POTENTIALLY REQUIRED	REGULATORY REQUIREMENT	PROJECT TRIGGER
State Historic Preservation Office (part of Arizona State Parks)	Consultations on National Register eligibility of cultural resources and effects of the proposed project	National Historic Preservation Act, Section 106, 36 CFR 800	Project activities (i.e., grading, trenching or other construction) may have potential to impact historic/cultural resources
Arizona Game and Fish Department	None, coordination required	Arizona Revised Statutes - Title 17 - Game and Fish Department	Part of site assessment activities for Arizona Corporation Commission process
Arizona Department of Transportation	Heavy haul permit	Arizona Administrative Code Title 17, Chapter 6 - Overdimensional Permits	Transport of oversized loads on roads under ADOT jurisdiction
Arizona Department of Transportation	Encroachment permit	ROW laws (Uniform Act)	Encroachment by facilities (e.g., transmission lines, pipes, new roads, etc.) May also be required for temporary construction access along SR 74 and US 60
Central Arizona Project	Permit or notification to cross the Central Arizona Project Canal	Land Use License	Permanent easement across the Central Arizona Project Canal
Local			
Maricopa County	Dust control plan Earth-moving permit Grading permit	Planning and Development Department, County Code	Construction
County and Local Jurisdictions Flood Plain Management	Notice to local jurisdictions, letter of requirements to fulfill	ARS 48-3609	Construction
City of Peoria	Grading permit and Desert Lands Conservation Ordinance waivers		Construction; work within city limits

1.6 TRIBAL CONSULTATION AND COORDINATION

In April 2011, the BLM contacted the following eight American Indian tribes to notify them of the Proposed Action and initiate formal consultation in preparation of the EIS: Gila River Indian Community, Salt River Pima-Maricopa Indian Community, Ak-Chin Indian Community, Tohono O’odham Nation, Yavapai Prescott Tribe, Yavapai Apache Nation, Fort McDowell Yavapai Nation, and the Hopi Tribe. These tribes incorporated this area as part of their traditional territories and express cultural affiliation with prehistoric people who inhabited or migrated through the area. In response to requests for additional information, on July 30, 2012 the BLM provided the cultural resource inventory results to the tribes and the efforts made to avoid impacts to prehistoric sites through project design. In recognition of the special relationship with the United States government, the BLM will continue to consult with the appropriate tribal governments at an official, executive level (government-to-government) in accordance with the NHPA and other relevant legal authorities. Relating to the NHPA, the goal is to identify and assess potential effects on National Register-eligible places of traditional cultural importance and to consult with tribes on appropriate treatment to avoid, minimize, and resolve adverse effects. The BLM will provide opportunities for government officials of federally recognized American Indian tribes to comment on and participate in the preparation of the EIS through review of the cultural resource inventory report prepared for this Project and will consider comments, notify consulted tribes of final decisions, and inform them of how their comments were addressed in those decisions.

In addition to addressing the effects of the transmission line, consultations will address: (1) consistency with tribal plans, as appropriate; and (2) observance of specific planning coordination authorities, including Section 101(d)(6) of the NHPA, American Indian Religious Freedom Act (AIRFA), EO 13007 (Indian Sacred Sites), EO 12898 (Environmental Justice), Secretarial Order 3206 (American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, Secretarial Order No. 3317 (Department of the Interior Policy on Consultation with Indian Tribes), and the ESA). Consultation with the State Historic Preservation Office (SHPO) pursuant to Section 106 of the NHPA, will be coordinated with tribal consultation, as appropriate. Detailed information on tribal consultations is provided in **Chapter 5 – Consultation and Coordination**.

1.7 SCOPING AND PUBLIC INVOLVEMENT

Public scoping is an integral part of the NEPA planning process. It provides “an early and open process for determining the scope of issues and alternatives to the Proposed Action to be addressed and for identifying the significant issues related to a Proposed Action” (40 CFR 1501.7). Public and agency input is solicited in order to identify the range or scope of issues to be addressed during the environmental analysis and in the EIS. Initiation of the EIS process and the public scoping meetings for the EIS were announced through the Federal Register, BLM news releases, paid announcements in the media, and postings on the BLM’s project websites. These activities are described below and in more detail in **Chapter 5 – Consultation and Coordination**.

1.7.1 Federal Register Notice of Intent

The public was notified of the Proposed Action and upcoming EIS scoping meetings through the NOI posted on the *Federal Register* website on April 8, 2011, and published in the *Federal Register* on April 11, 2011 (76 FR 20006-20007). The notice announced the intent to prepare an EIS and provided the website address that listed specific dates, locations, and times of the public scoping meetings. In addition, the notice provided information such as a description of Project facilities and location, information on how to submit comments and why they are important, and contact information for the BLM. The comment period for the EIS scoping closed on May 26, 2011.

1.7.2 Mailings, Posters, and Email Notifications

Invitation letters were sent to a mailing list consisting of 538 individuals that included those who commented during the ACC process, mining claimants, and other interested parties. Postcard mailers announcing the time, date, and location of the public scoping meetings were sent to the recipients of the scoping invitation letters, and an additional 12,002 interested parties and members of the public whose addresses were identified based on mail carrier routes within the communities identified by the BLM and within the Project Study Area.

Four hundred community/neighborhood outreach flyers were distributed and/or posted at 24 locations in potentially affected communities on April 14 and April 18, 2011. Some of these included distributions or postings at multiple sites within one area, including four sites across Lake Pleasant Regional Park. Twelve 18- by 24-inch signs were also posted at some locations.

On April 14, 2011, the first email notifications were sent to agencies, government officials, special interest groups, and other interested parties. This reminder contained the dates, times, and locations for the agency scoping meeting and each public scoping meeting. Each email included a link to the Project website and BLM contact information. Another reminder went out to these groups on April 25, 2011, one day prior to the first scoping meeting in Phoenix. Prior to the official May 27, 2011, end date for the scoping comment period, two emails were sent to these groups on May 24 and 26, 2011 with the goal of maximizing public involvement.

1.7.3 Media Contacts

Beginning on April 12, 2011, and ending one day before the last public scoping meeting, APS placed 39 paid display announcements in local newspapers throughout the Project Study Area and the Phoenix metropolitan area announcing the time, date, and location of the public scoping meetings, as requested by the BLM. Announcements were placed in the following newspapers: The *Arizona Republic* (statewide coverage, NW Valley zones 1 and 20, Peoria zone 2, Glendale zone 9 and North Phoenix zone 21), *Peoria Times*, *Sonoran News*, *Surprise Today*, *West Valley View*, and *The Wickenburg Sun*.

1.7.4 Public Scoping Meetings

During the EIS scoping period, the BLM held three public scoping meetings and one cooperating agency scoping meeting to identify issues and concerns regarding the Project. These scoping meetings provided an opportunity for the general public as well as the agencies to learn about the Project and to provide comments to the BLM. Meeting locations, dates, times, and number of attendees is provided in **Table 1.7-1**.

Table 1.7-1 Formal Scoping Meeting Dates, Times, Locations, and Attendees

LOCATION	DATE	TIME	ATTENDANCE*
Public Scoping Meetings			
Ramada Plaza Phoenix Metrocenter, Phoenix, Arizona	April 26, 2011	5:30 – 8:00 p.m.	29
Nadaburg Elementary School, Wittmann, Arizona	April 27, 2011	5:30 – 8:00 p.m.	66
Peoria Community Center, Peoria, Arizona	April 28, 2011	5:30 – 8:00 p.m.	249
Agency Scoping Meeting			
Ramada Plaza Phoenix Metrocenter, Phoenix, Arizona	April 26, 2011	2:00 – 4:00 p.m.	23
Total			367

*These counts reflect only those attendees who elected to sign in at the door. It was likely that there were others who did not sign in.

1.8 ISSUES IDENTIFIED DURING SCOPING

Pursuant to CEQ NEPA regulations (40 CFR 1501.8), it is through the scoping process that the lead agency (a) determines the scope and significant issues to be analyzed in depth in the EIS and (b) identifies and eliminates from detailed study the issues that are not significant, narrowing the discussion of such issues to a brief presentation in the EIS as to why they will not have a significant effect on the human environment. In brief, the scoping comments must be reviewed to determine the significant issues in the context of NEPA and conducting an EIS.

During the EIS scoping period, a total of 289 comments were received. Within the 289 comments, 935 issues were identified and categorized into the 11 main issue categories shown in **Table 1.8-1**. In addition to the comments received from the external scoping process, internal scoping identified either similar issues listed in **Table 1.8-1** or additional issues covered in this Draft EIS and Draft RMPA. These issues were identified and addressed in data collection methodologies and baseline reports that are included in the Project Record and are incorporated into the appropriate sections of this Draft EIS and Draft RMPA.

Table 1.8-1 Number of Comments by Category

COMMENT CATEGORY	COMMENTS RECEIVED
Air and Climate	1
Biology	93
Health and Safety	103
Mitigation and Alternatives	27
Need and Reliability	6
NEPA Process and Resource Management Plan Amendment	61
Recreation	11
Socioeconomic Values	As follows:
Property values	101
Environmental justice	1
Quality of life	5
General community	28
Scenic/Visual	103
Transportation and Traffic	52
Unclassifiable (general comments – non-substantive)	343
TOTAL	935

Issues raised and identified during scoping are summarized in **Table 1.8-2**. The table also identifies in what section of the EIS the issue is addressed. A complete summary of issues identified during scoping, including those issues that are not addressed in this EIS, is provided in the Project Scoping Report, which is available on the BLM Project website (see <http://www.blm.gov/az/st/en/prog/energy/aps-sunvalley.html>).

In addition to the public scoping, on June 8, 2011, an Economic Strategies Workshop was also conducted for this Project to comply with the BLM's Land Use Planning Handbook during the EIS and Land Use Plan Amendment process. The purpose of the workshop was to identify to BLM management, opportunities that further the social and economic goals of area communities. A complete summary of this process and the information presented at the Workshop is included in the Project Record. Additional issues identified from the Workshop that were not identified through public scoping, have also been included in **Table 1.8-2**.

Table 1.8-2 Summary of Issues from Scoping

ISSUES	WHERE ADDRESSED IN EIS
<p>Need and Reliability</p> <ul style="list-style-type: none"> • The analysis should evaluate the need for increased capacity and reliability of power infrastructure in the metropolitan Phoenix area. • Project area lands were a significant part of the Lake Pleasant Resource Conservation Area. The value of the lands for conservation versus the need for the project needs to be analyzed. 	<p>Sections 1.1.2 and 1.2</p> <p>Sections 1.1.2, 1.2, 3.10, and 4.10 (Socioeconomics)</p>
<p>Process, Bradshaw-Harquahala RMP Amendment, and Policy</p> <ul style="list-style-type: none"> • The Proposed Action was approved by the ACC whereas any alternative routes have not. Should they be selected, would need ACC approval. • The analysis should consider potential delay of the transmission line construction process due to any additional ACC approval requirements once the NEPA process is completed. • The Project components north of SR 74 would require a RMPA. This process should consider: <ul style="list-style-type: none"> ○ The resource impacts of a RMPA. ○ The appropriateness of amending the Bradshaw-Harquahala RMP in such a way that would benefit developers. ○ The flexibility of the Bradshaw-Harquahala RMP to address present and future planning needs. • Correcting omissions and inconsistencies in the Bradshaw-Harquahala RMP. The analysis should evaluate applicability of the BLM policy of co-locating transportation and utility corridors to the Project. • The analysis should discuss applicability of federal and state policies regarding joint use corridors. 	<p>Chapters 1, 2, and 4</p>

ISSUES	WHERE ADDRESSED IN EIS
<p>Project Design Features, Mitigation Measures, and Alternatives</p> <ul style="list-style-type: none"> • Fencing to protect tortoises should be installed and access roads should be designed to minimize impacts to habitat. • Consider distances between the power line and surface in relation to water quality; for example, the impacts to public drinking water supplies if power lines or other components fall into the river or CAP canal. • The alternative of constructing the transmission line underground needs to be evaluated, specifically routing under the LAFB auxiliary field. • The alternative of aligning the transmission line route along the CAP canal needs to be evaluated. • The placement of the Project in or near subdivisions should be avoided. • The alternative of placing the transmission line in the West Wing Corridor needs to be evaluated. • The analysis needs to include compatibility of routes crossing non-BLM lands with approved land plans south of SR 74. 	<p>Chapter 2</p>
<p>Air and Climate</p> <ul style="list-style-type: none"> • The Project would involve ground disturbance that may affect air quality in a designated nonattainment area. 	<p>Sections 3.2 and 4.2</p>
<p>Biological Resources</p> <ul style="list-style-type: none"> • The construction and operation of Project components could have an impact on wildlife and their habitats. North of SR 74, the Project could be within sensitive habitat or habitat for special status species. The area is already designated for approved off-road vehicles and grazing. Additional access to this area could lead to further habitat degradation. • The construction and operation of Project components could impact bird and bat habitat. (Electric transmission facilities cause bird and bat fatalities due to collision and electrocution.) Implementation of the latest guidelines for avian and bat protection will be critical to protection of these species. • The construction of Project components in proximity to the Agua Fria River and associated riparian vegetation could impact these resources. 	<p>Sections 3.13 and 4.13 (Vegetation Resources), Sections 3.16 and 4.16 (Wildlife Resources)</p>

ISSUES	WHERE ADDRESSED IN EIS
<p>Health and Safety and Transportation</p> <ul style="list-style-type: none"> • Electromagnetic fields (EMFs) are thought to contribute to human health concerns. Existing and planned residences would be in proximity to the Proposed Action transmission line route on the south of SR 74, and thus potentially exposed to EMFs. • Lightning strikes to electric transmission facilities and other weather events can cause fires. • The Project components that would be in proximity to the Thunder Ridge Airpark could impact that facility. 	<p>Sections 3.8 and 4.8 (Public Health and Safety); Sections 3.12 and 4.12 (Transportation)</p>
<p>Recreation</p> <ul style="list-style-type: none"> • The Project may impact visual and recreation resources in the Hieroglyphic Mountains Recreation Area, Castle Hot Springs Special Recreation Area and The Boulders Off Highway Vehicle (OHV) Area. • The construction disturbance may impact OHV trails. • The analysis should evaluate the cost and effectiveness of rehabilitating construction disturbance in OHV areas (de facto creation of new roads/routes that could not be prevented or rehabilitated). • The Project would create access to currently undisturbed lands with potential proliferation of additional utilities in the area. • The analysis should evaluate protection of recreational resources identified in the Bradshaw-Harquahala RMP. • The analysis should evaluate the cumulative impacts of this Project on OHV multiuse trails state-wide in conjunction with renewable energy projects. 	<p>Sections 3.10 and 4.10 (Recreation)</p>
<p>Socioeconomic</p> <ul style="list-style-type: none"> • The analysis should evaluate the direct, indirect, and cumulative impacts of the Project on area property values, considering the already weakened housing market. • The analysis should address the potential cumulative impacts from the increased capacity on future projects including renewable energy. • The analysis should assess the impact of the Project on area property values resulting in reduced tax revenues, and this impact on state/local budgets and school funding, preventing economic growth and recovery. 	<p>Sections 3.9 and 4.9 (Socioeconomics)</p>

ISSUES	WHERE ADDRESSED IN EIS
<p>Socioeconomic Continued</p> <ul style="list-style-type: none"> • The analysis should evaluate compensation for homes taken as a result of the Project. • The analysis should evaluate the environmental justice aspects of the Project. • The analysis should evaluate potential adverse impacts to socioeconomics of the recreation industry in Arizona. The land north of SR 74 (which includes BLM-managed lands) is used by a variety of recreational users, including OHV riders and hikers. Assess the potential for closure of existing trails and access points and the impacts to recreation in the area. The analysis should include potential impacts on the social and non-monetary values associated with recreation, such as community cohesion. This might also include the value of ecosystem services, which are goods and services provided by nature that bring value to human life, but generally lack market prices. • The analysis should evaluate the potential beneficial impacts to socioeconomics through local job creation, income generation, and development of renewable energy generation sites. 	<p>Sections 3.9 and 4.9 (Socioeconomics)</p>
<p>Scenic/Visual</p> <ul style="list-style-type: none"> • The Project will impact scenic views along the SR 74 corridor. • The analysis should evaluate the short-term visual impact to travelers on SR 74 versus long-term visual impact to area residents who would view the Project all the time and consider this affecting their quality of life in terms of social considerations. • The analysis should consider precedence for co-locating power lines and roads. • The analysis should revisit the major Bradshaw-Harquahala RMP issue of visual vistas associated with the Hieroglyphic Mountains and southern Bradshaws. • The analysis should consider the quality of the lands north of SR 74 for conservation management by the BLM as opposed to expanded development into BLM lands. 	<p>Sections 3.14 and 4.14 (Visual Resources)</p>

1.9 ORGANIZATION OF THE EIS

This EIS complies with the CEQ recommended organization in 40 CFR 1502.10-1502.18. **Table 1.9-1** describes the organization of the Draft EIS and Draft RMPA.

Table 1.9-1 Organization of the Draft EIS and Draft RMPA

CHAPTER	CONTENTS
Chapter 1 – Introduction, Purpose and Need	This chapter provides a description of the Project, the role of the BLM in the EIS and RMPA process, and the required regulatory actions for the Project. Chapter 1 also includes a summary of the scoping process and issues identified.
Chapter 2 – Description of the Applicant’s Proposed Project and Alternatives	This chapter describes the Project and Action Alternatives analyzed in the EIS, including the No Action Alternative. Alternatives that were considered, but eliminated from further analysis are described with a discussion of why they were not considered further. Environmental Protection Measures included in the Project are described along with mitigation measures identified during preparation of the EIS that would further reduce environmental effects. A comparison table of the environmental effects of the various alternatives is included along with the identification of the Agency Preferred Alternative.
Chapter 3 – Affected Environment	This chapter describes the existing environment that could be affected by the Proposed Action and Action Alternatives. The existing environment includes the social and natural environment.
Chapter 4 – Environmental Consequences	This chapter describes possible environmental consequences of construction, operation, maintenance, and decommissioning of the Project and alternatives analyzed in the EIS. Direct and indirect impacts of the Project and alternatives are assessed and described in order to allow for comparative impact evaluation. Impacts are compared to the social and natural environment that would be expected to exist if no action were taken (No Action Alternative). This chapter also describes the cumulative impacts: possible environmental consequences of construction, operation, and maintenance of the Project and alternatives analyzed in this EIS when added to all past, present and reasonably foreseeable actions in the Cumulative Effects Area for each environmental resource evaluated in the EIS.
Chapter 5 – Consultation and Coordination	This chapter describes public participation and Tribal consultation undertaken to date; and when additional public participation opportunities would occur throughout the EIS process. It also describes the recipients that will receive copies of the EIS for review, as well as the preparers of the document.

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