

# CHAPTER 1 – PROJECT SCOPE

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## INTRODUCTION

Arizona Public Service (APS) is the electric power supplier to the Town of Chino Valley, located in Yavapai County, Arizona. APS is proposing to construct a 69 kilovolt (kV) subtransmission line to connect the Yavapai Substation, located on the Prescott National Forest (PNF) east of Chino Valley, with a new substation in Chino Valley. The estimated length of the proposed transmission line is approximately 20 miles, of which approximately 3 miles cross PNF land, and more than 17 miles are located on state and private land. An alternative to a portion of the proposed route on private land is being evaluated and would shorten the length of the proposed line on private land by 3 miles, for a total length of 17 miles.

The PNF is considering issuing a permit to APS for the construction, operation, and maintenance of the portion of the facilities that would be located on the PNF. Because part of the proposed project is located on federal land, the project must comply with the National Environmental Policy Act (NEPA) of 1969, as amended, 42 United States Code, § 4321 *et seq.* As required by NEPA, this Environmental Assessment (EA) has been prepared to document the potential effects of the project and to provide information to assist the deciding official in making a decision. The U.S. Forest Service (Forest Service) is the lead agency for this EA, and the Forest Supervisor of the PNF is the deciding official for the federal land portion of this project. The decision to be made is whether the right-of-way easements should be granted on National Forest System (NFS) land, as proposed. The Forest Supervisor's decision will apply only to the approximately 3 miles of NFS land that would be impacted by building the subtransmission line. The substation and private land portion of the new transmission line would be subject to the permitting authority and zoning requirements of Yavapai County and the Town of Chino Valley.

## DOCUMENT STRUCTURE

This EA has been prepared in compliance with the NEPA and other relevant federal and state laws and regulations and describes the direct, indirect, and cumulative environmental impacts that would result from the Proposed Action. The document is organized into the following sections:

- Chapter 1 – Project Scope. This chapter includes information on the purpose of and need for the project, the project proponent's proposal for achieving that purpose and need, and the relationship of the project with the PNF's Land and Resource Management Plan (Forest Plan). This chapter also details how the Forest Service informed the public of the proposal and how the public responded.
- Chapter 2 – Alternatives. This chapter describes the alternatives considered, provides a more detailed description of the proponent's Proposed Action, and discusses potential mitigation measures.

- Chapter 3 – Affected Environment, Environmental Consequences, and Cumulative Impacts. This analysis is organized by resource area. Under each resource the affected environment is described first, followed by the effects of the No Action Alternative, which provides a baseline for evaluating and comparing the implementation of the Proposed Action Alternative and Alternate Option. Lastly, the cumulative impacts of implementing the Proposed Action in addition to other reasonably foreseeable past, present, and future actions are described.

Potential impacts are analyzed in the Environmental Consequences section of Chapter 3. Potential environmental effects from the Proposed Action are divided between the portion of the proposed project located on NFS lands (“Effects On NFS Land”), and the portion of the proposed project located off NFS lands (“Effects Off NFS Land”).

- Chapter 4 – Consultation and Coordination. This chapter provides a list of agencies and individuals consulted during the development of the EA.
- Chapter 5 – List of Preparers and Reviewers. This chapter provides a list of the preparers and reviewers of the document.
- Chapter 6 – References Cited.
- Appendices. The appendices provide more detailed information to support the analysis presented in the EA.

## **PROJECT LOCATION**

The Yavapai to Chino Valley 69kV Subtransmission Line Project would originate at the Yavapai Substation, located on the PNF, and terminate at a new 69kV substation, located in the Town of Chino Valley near the northwest corner of the Old Home Manor area (Figure 1). The project study area includes lands managed by the PNF, Arizona State Trust land, Town of Chino Valley property, and private lands.

Figure 1  
11 x 17 color  
Study Area Map

## **PURPOSE AND NEED FOR ACTION**

The Yavapai-Chino Valley 69kV line and CV3 Substation are needed to improve 69kV electric reliability and power quality and to provide capacity for projected load growth in the Chino Valley area. System studies conducted by APS have shown the need for additional electrical facilities and capacity in the area. The Chino Valley area has been experiencing a rapid increase in new residential and commercial development, and new growth and development are expected to continue. Chino Valley's population grew by 97 percent between 1990 and 2004 (Arizona Department of Commerce 2005). An average 6.6 percent annual electrical load growth is projected for the area over the next 10 years. As a result of this population and electrical load growth, APS's electrical infrastructure is nearing its capacity. Continued growth will over-stress these facilities, thus APS needs to make plans now to augment the area's electrical facilities.

APS serves approximately 5,822 customers in the Chino Valley area and expects their customer base to exceed 7,431 over the next five years. Peak area electrical loading was 54 megawatts (MW) in July 2006. Power loads are increasing faster than population growth, due in part to factors such as new arrivals building larger homes with more modern amenities, resulting in greater power consumption than in the past.

The Chino Valley area load includes the communities of Chino Valley and Paulden; the Williamson Valley Ranch, Talking Rock Ranch, American Ranch, Inscription Canyon Ranch, and Morgan Ranch housing developments; the Sturm Ruger Plant, Prescott City Municipal Airport and Industrial Park area; and the Prescott City well field. An additional 4,000 homes are expected to be built as part of the Del Rio Springs master planned community.

The primary 69kV power source to the Chino Valley area is two 69kV lines from the Willow Lake 230/69kV Substation. An outage to either line results in voltage deviations to area substations that may not meet APS standards for service. Corrective measures without the planned 69kV line would include shedding up to 8 MW in the area, which is the equivalent of approximately 1,500 customers.

The new 69kV transmission line and substation would accomplish the following:

- increase reliability by extending an additional transmission source to the Chino Valley area
- provide a looped transmission system and the ability to restore power in a timely manner in the event of an outage
- provide capacity for projected load growth in the eastern Chino Valley area and develop the 69kV system for meeting long-term needs

The purpose and need for action by the Forest Service is to identify a suitable corridor for the proposed power line on PNF land. This will facilitate the completion of this proposed project and meet the management needs and requirements set forth in the Forest Plan.

The proposed 69kV subtransmission line and substation would be in operation year round in order to provide reliable power to the communities in the Chino Valley area. The proposed project would benefit the communities around Chino Valley, including Paulden and Prescott Valley, in addition to strengthening the overall 69kV system in the Chino Valley area.

## **PROPOSED ACTION**

The action proposed by APS to meet the purpose and need consists of the construction of an approximately 20-mile-long 69kV subtransmission line connecting the existing Yavapai Substation, located on the PNF, with a new 69kV substation near the northwestern corner of the Old Home Manor area in Chino Valley. Approximately 3 miles of the subtransmission line corridor would be located on NFS land. The 69kV line is proposed to be built on single-pole, self-weathering structures, approximately 55 to 65 feet tall. Portions of the proposed line also would include consolidating approximately 3 miles of existing 12kV distribution line with the new 69kV line. The proposed substation would be approximately 2 acres in size and would be located on private land. The Proposed Action is described in detail in Chapter 2.

APS is requesting a right-of-way of up to 40 feet in width for a lease of 50 years. Construction of the proposed project is anticipated to occur over eight months, and has an estimated in-service date of late 2008.

## **DECISION FRAMEWORK**

The PNF is the lead agency for this EA, and the Forest Supervisor of the PNF is the deciding official for the federal land portion of this project. The Forest Supervisor's decision will apply only to the approximately 3 miles of NFS land on the Chino Valley Ranger District that could be impacted by the construction, operation, and maintenance of the subtransmission line. The decision to be made is whether the right-of-way easements should be granted on NFS land as proposed. The deciding official can:

- select the Proposed Action
- or, select the No Action Alternative
- include mitigation or monitoring measures, if necessary
- approve or deny a special-use permit for the construction of the portion of the proposed subtransmission line on PNF land
- determine whether the portion of the project on NFS land requires a Forest Plan amendment

If the decision on this project is appealed, the appeal(s) must be consistent with 36 CFR 215 and contain identification of the specific disagreements or changes in the decision that the appellant seeks and the rationale for those disagreements or changes.

## **FOREST PLAN CONSISTENCY**

The PNF Forest Plan (1986, as amended) states that “(a) authorizations for special uses may be issued to qualified applicants when the proposed use: (a) fulfills a demonstrated special need without unduly infringing on the use by the general public; (b) is in accordance with an approved implementation plan (where called for) and will not cause adverse impacts on the national forest and its resources which cannot be fully mitigated; (c) does not serve a function that can be provided by private enterprise off national forest lands; and (d) is complimentary to Forest Service and management area objectives, programs and purposes.” PNF guidelines are “to locate needed facilities within existing corridors where feasible” (PNF 1986).

The proposed subtransmission line is consistent with the management direction and multiple-use management framework described in the PNF Plan (1986). The proposed route is located adjacent to existing transmission lines within established utility corridors. The proposed project complies with standards and guidelines, specified in the Forest Plan, that are applicable to this type of use. Chapters 1 and 2 of this document contain the purpose and need, project description, and other relevant information pertaining to the requirements for a special-use permit.

The Forest Service will make a final determination on compatibility and consistency with the Forest Plan when they complete their environmental analysis and decision process.

## **REGULATORY REQUIREMENTS AND COORDINATION**

The primary legal basis for granting easements across National Forest System lands is the Federal Land Policy and Management Act (FLPMA) of 1976 (43 U.S.C. 1715). Under FLPMA, the Secretary of Agriculture, in this case, is authorized to grant, issue, or renew rights-of-way over, upon, or through such lands for utility corridors, roads, trails, highways, railroads, canals, etc. The issuance of permits, leases, and easements under FLPMA is guided by the regulations of 36 CFR 251. Easements are granted across NFS lands when the need is consistent with planned uses.

A Cultural Resource Clearance Report, Wildlife Specialist Report, and Biological Assessment and Evaluation Report have been completed for the project. Stipulations for the coordination of implementation activities are specified in these reports.

Before construction surveying begins, required permits would be obtained to conduct engineering surveys on federal and state lands or right-of-entry for privately owned land. A noxious weed survey would be conducted prior to construction-related activities.

## APPLICABLE LAWS AND EXECUTIVE ORDERS

Shown below is a partial list of federal laws and executive orders pertaining to project-specific planning and environmental analysis on federal lands. While most pertain to all federal lands, some of the laws are specific to Arizona. Disclosures and findings required by these laws are contained in Chapter 3 of the EA.

- Federal Land Policy and Management Act (FLPMA) of 1976
- National Environmental Policy Act (NEPA) of 1969, as amended
- National Historic Preservation Act (NHPA) of 1966, as amended
- Multiple Use - Sustained Yield Act of 1960
- Clean Air Act of 1970, as amended
- Endangered Species Act (ESA) of 1973
- Forest and Rangeland Renewable Resources Planning Act (RPA) of 1974
- National Forest Management Act (NFMA) of 1976
- Clean Water Act of 1977
- American Indian Religious Freedom Act of 1978
- Archaeological Resource Protection Act of 1980
- Executive Order 11593 (cultural resources)
- Executive Order 11990 (wetlands)
- Executive Order 12898 (environmental justice)
- Executive Order 12962 (aquatic systems and recreational fisheries)
- Executive Order 13186 (Migratory Bird Treaty Act)

## PUBLIC INVOLVEMENT AND SCOPING ISSUES

The Council on Environmental Quality (CEQ) defines scoping as “an early and open process for determining the scope of issues to be addressed and for identifying the significant issues related to a Proposed Action” (40 CFR 1501.7). The scoping process is used to invite public participation to help identify issues, and to obtain public comment at various stages of the environmental analysis process. Although scoping begins early in a project, it is an interactive process that continues until a decision is made. The public scoping process identified issues and concerns that were analyzed and are addressed in the EA. The PNF announced the project and the 30-day scoping comment period through legal notice publications in the *Chino Valley Review* and the *Prescott Daily Courier*. Comments have been and will continue to be accepted through a telephone information line and through a website maintained by APS.

Newsletters were distributed, in March and September 2004, to agencies and the public describing the project and providing information on the public meeting. The project and public meetings also were announced through display advertisements in the *Chino Valley Review* and the *Prescott Daily Courier* on September 22 and 29, 2004. Two public open houses (one in Chino Valley and one in Paulden) were conducted in October 2004 to solicit public comments and suggestions regarding the proposed project, and other projects APS is planning in the Chino Valley area.

The first public open house meeting took place on October 5, 2004, from 5:30 to 7:30 p.m. at the Territorial Elementary School in Chino Valley, Arizona. Four individuals attended the meeting. A second public open house was held at the Chino Valley Fire District Station in Paulden, Arizona, on October 7, from 5:30 to 7:30 p.m.; 29 people signed the meeting register. The open house was immediately prior to a Paulden Area Community Organization meeting during which 36 people attended an APS presentation about the projects. Representatives of the Forest Service, APS, and Environmental Planning Group (EPG) were present at both meetings. The purpose and need; description of the proposed project, including a projected date for implementation; and the preliminary alternatives to be studied were presented. Details on the environmental studies, schedule, and project background also were presented. Informational handouts and comment forms were available at the meeting to provide an opportunity for the attendees to review project details and submit comments either at the meeting or by mail.

Other public involvement and stakeholder activities conducted as part of the project include meetings with Chino Valley staff members and elected officials, presentations to the town council, and meetings with major property owners and developers. A number of meetings were held with representatives of the Town of Chino Valley and Arizona State Land Department (ASLD). Their comments were used to formulate and analyze alternatives for the portion of the route off of the forest. The Town of Chino Valley expressed concerns about power lines being placed too close to a possible future airstrip planned for the center of the study area. The ASLD preferred that the route not bisect state land parcels and that it follow existing linear features to the extent possible.

APS gave two presentations to the Chino Valley Town Council during council meetings at the Chino Valley Town Hall. The first presentation on September 9, 2004, provided an overview of the project with time for questions from the council. The second presentation was held during the December 8, 2005, meeting and also included an overview of the project and a question-and-answer session with the council. APS presented the proposed and alternative routes. The council expressed their approval of the routes, acknowledging that routes would have the least impact given the area that needs to be served. The meeting was open to the public, but no comments regarding the project were expressed.

APS met several times and was in close contact with major landowners for the portion of the proposed route and alternate option located on private land. Based on the landowners' preferences, a new route was created and brought forward as the proposed route, and the route which had previously been the preferred route became the alternate option.

This project has been listed in the PNF's Schedule of Proposed Actions (SOPA) since the January 1 to March 31, 2005 SOPA, and in each quarterly SOPA thereafter.

## **Scoping Issues**

Comments from scoping were evaluated in order to identify potential issues. An issue is a point of debate, discussion, or dispute regarding some anticipated environmental effect from implementing the Proposed Action. During the scoping process and over the course of the project, two comments relating to this project were received from private citizens; one comment was received via a comment form during one of the public meetings and one comment was received via a letter mailed to the Forest Service. One comment stated a preference to not place the route near the Peavine Trail in Chino Valley. The other comment expressed support for the project. A table of public and agency comments and the disposition of raised issues has been included in the project record.

## **Evaluation Criteria**

Evaluation criteria were developed to measure the potential consequences of the Proposed Action. The evaluation criteria focused on the following areas:

- land use
- visual resources
- cultural resources
- biological resources

## **Land Use**

The evaluation of potential impacts on land use resources from the Proposed Action includes the following criteria:

- consistency with Forest Plan
- effects on existing and future land uses
- use of existing access and linear corridors

## **Visual Resources**

Criteria that will be applied to evaluate the potential impacts of the Proposed Action on visual resources include the following:

- consistency with Forest Service visual quality objectives
- effects to views from travel routes and recreation areas

## **Cultural Resources**

The evaluation of potential impacts on cultural resources from the Proposed Action includes direct effects on known cultural sites. Section 106 of the NHPA requires that the possible effects of federal undertakings on properties included or eligible for the National Register of Historic Places (NRHP) be considered.

The cultural resource inventory and analysis of prehistoric and historic sites, buildings, structures, districts, trails, and objects has been based on the previous surveys conducted in the study area and a pedestrian survey conducted along the proposed right-of-way.

## **Biological Resources**

Criteria that will be applied to evaluate the potential impacts of the Proposed Action on ecosystems, including vegetation and wildlife habitats, include the following:

- effects on native vegetation
- effects on protected plants and animals (Regional Forester's List of Sensitive Species, federally listed Threatened or Endangered species and habitats)

Analysis of these criteria is discussed in Chapter 3.

## **PROJECT RECORD AVAILABILITY**

The project record is currently in draft form and unavailable for public review. Once a decision has been made, the project record will become available for public review pursuant to the Freedom of Information Act (5 U.S.C. 552). The record will be located at the Chino Valley Ranger District Office. This project record is hereby incorporated by reference in its entirety.

For information contact: Vicky Clay, Lands and Realty Specialist, at (928) 567-1170 or by email at [vlcay@fs.fed.us](mailto:vlcay@fs.fed.us).