

United States Department of the Interior

BUREAU OF RECLAMATION
FINDING OF NO SIGNIFICANT IMPACT

NAVAJO GENERATING STATION EXTENSION LEASE
ENVIRONMENTAL ASSESSMENT – November 2017

Coconino and Navajo Counties, Arizona

November 2017

Approved:



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The Department of the Interior’s Bureau of Reclamation – Lower Colorado Region (Reclamation) and Bureau of Indian Affairs – Navajo Region (BIA) have prepared an Environmental Assessment (EA), which describes potential environmental impacts resulting from federal actions that would approve a new lease for the Navajo Generating Station and associated facilities (NGS). The new lease and its interrelated agreements are known as the Extension Lease.¹ The Extension Lease and grants of right-of-way (ROW) and easements pursuant to 25 USC Section 323 (§ 323 Grants) would enable retirement of certain NGS facilities and enable long-term monitoring activities on Navajo Nation Tribal Trust Lands after operations, including continued generation of power and coal burning, end on December 22, 2019. The Extension Lease also would allow the portions of the Southern Transmission System and its associated communication sites (STS) and portions of the Western Transmission System (WTS) that are located on Navajo Nation Tribal Trust Lands to continue to be operated and maintained through 2054 in the same manner they have been since they were constructed in the 1970s, with an option to decommission by 2056 or extend through 2089 including decommissioning.

Reclamation has determined that providing its consent for the Salt River Project Agricultural Improvement and Power District (SRP) to execute the Extension Lease on behalf of the United States, including an option for the Navajo Nation to use a portion of the United States’ share of NGS transmission capacity, will not result in significant environmental impacts on the human environment that would merit preparation of an environmental impact statement.

BACKGROUND

The NGS is a three-unit, 2,250-megawatt (MW) coal-fired power plant located on tribal trust lands leased from the Navajo Nation about 5 miles east of Page, Arizona. The NGS is operated pursuant to a 1969 “Navajo Project Indenture of Lease” (Existing Lease). In February 2017, SRP, the operator of the NGS, and the other NGS non-federal Participants (Lessees) announced they no longer intend to operate the NGS after the Existing Lease expires. Planned closure of the NGS is primarily the result of lower-cost energy sources, such as natural gas, which have made the coal-fired NGS plant less economically viable in recent years (SRP 2017).

The Existing Lease authorizes current NGS operations through December 22, 2019, and it provides for a 1-year period (i.e., until December 22, 2020) for the retirement of most of the NGS facilities. Therefore, continuing current NGS operations through December 22, 2019, does not require any federal action to occur. NGS retirement² involves a complex array of activities that will likely take longer than the 1-year period authorized in the Existing Lease. Rather than taking 1 year for retirement as envisioned by the Existing Lease (i.e., until December 22, 2020), SRP has determined that a minimum of 2 to 3 years would be required to complete the major retirement activities, followed by 30 years or more for remediation and long-term monitoring. To ensure that retirement activities can be completed by the end of 2019 or 2020, current NGS operations under the Existing Lease would end before December 22, 2019, even if the term of the Existing Lease allows for operations through December 22, 2019. To enable NGS operations to continue until December 22, 2019, and retirement to begin in 2020, the Navajo Nation and SRP (on behalf of NGS Lessees) have agreed to a new lease effective December 23, 2019, with a 35-year term and associated waivers, an amendment to the Existing Lease, and two Restrictive Covenants (Extension

¹ “Extension Lease” refers to a set of interrelated agreements: Extension Lease, Memorandum of Extension Lease (action by Reclamation only), Amendment No. 1 to Existing Lease, and two Restrictive Covenants. These agreements are described in Section 2.3.1 of the EA.

² NGS “retirement” refers to all work that would occur on the NGS to remove facilities and restore the land, including decommissioning, dismantling, removal, reclamation, restoration, and monitoring and remediation where applicable.

Navajo Generating Station Extension Lease EA

Lease). Without the Extension Lease, the NGS would cease operations by the end of December 2017 so that retirement could be completed by the end of 2019 or in 2020.

The EA considered two alternatives:

- The No Action alternative, under which retirement of the NGS would be completed no later than December 22, 2020. Although the NGS could operate through December 22, 2019, pursuant to the Existing Lease, the No Action alternative considers the most likely scenario of the NGS shutting down no later than December 2017 to allow sufficient time for SRP to complete retirement activities contemplated by the Existing Lease for the plant, water supply facilities, and ash (CCR) landfill. A separate agreement would need to be negotiated between the Navajo Nation and the NGS Lessees for access to certain areas in order to conduct long-term monitoring and remediation activities that must be carried out for a minimum period of 30 years once the coal combustion residue (CCR) landfill has been closed and notice of the closure has been submitted to the U.S. Environmental Protection Agency (EPA). Another separate agreement would need to be negotiated to continue operating the portions of the STS and WTS that are located on Navajo Nation Tribal Trust Lands. Without an agreement, the portions of the STS and WTS located on Navajo Nation Tribal Trust Lands would be decommissioned and retired, and the land reclaimed and restored.
- The Proposed Action, under which retirement of the NGS would occur after December 22, 2019. Following cessation of operations on December 22, 2019, most NGS facilities would be retired and the area restored within 5 years (specific facilities selected for retention by the Navajo Nation would remain). Long-term monitoring and remediation would occur for up to 35 years, until the end of 2054. The Proposed Action also would enable portions of the STS and WTS that are located on Navajo Nation Tribal Trust Lands to continue operating (in conjunction with the remainder of the NGS Transmission System off tribal trust lands) for 35 years, through the end of 2054, with one automatic option to renew for 2 years (for retirement), or another 35 years of operation and subsequent retirement. The terms of the Extension Lease also provide the Navajo Nation with an option to use up to 500 MW of the United States' capacity on the NGS Transmission System. To become effective, the Proposed Action requires BIA's approval of the Extension Lease (except for the Memorandum of Extension Lease) and issuance of § 323 Grants for the Navajo Nation Tribal Trust Lands under the Extension Lease. The Proposed Action also requires Reclamation to provide its consent for SRP to execute the Lease for the United States' share of NGS capacity that SRP holds, by contract, for the use and benefit of the United States.

Under either alternative, the Kayenta Mine (KM) is anticipated to operate under its existing Surface Mining Control and Reclamation Act (SMCRA) permit to mine and supply the coal required for NGS generation, and continue reclamation activities.

Reclamation and BIA were co-leads in the preparation of the EA, which evaluated the potential environmental effects of the Proposed Action and the No Action alternative. It was prepared in compliance with the requirements of the National Environmental Policy Act of 1969, as amended (NEPA) (Public Law 91-190), Council on Environmental Quality (CEQ) regulations for implementing NEPA (40 Code of Federal Regulations [CFR] Parts 1500-1508), and DOI regulations implementing NEPA (43 CFR Part 46). The EA is incorporated by reference into this FONSI. Five tribes—the Gila River Indian Community, Hopi Tribe, Navajo Nation, Pueblo of Zuni, and Tohono O'odham Nation—were cooperating agencies in the EA process. In addition, government-to-government consultation meetings were held with the following tribes at their request: Hopi Tribe, Tohono O'odham Nation, Colorado River Indian Tribes, Gila River Indian Community, Pascua Yaqui Tribe, San Carlos Apache Tribe, White Mountain Apache Tribe, and the Navajo Nation.

FINDING OF NO SIGNIFICANT IMPACT

Based on the EA and after considering public comments received, Reclamation has determined that the Proposed Action will not result in significant environmental impacts on the human environment. The EA provides a description of the existing conditions of resource areas that could be affected and potential impacts that are anticipated to result from implementing the Extension Lease, when compared to the No Action alternative. Preparation of an environmental impact statement is not required. This decision is based on the following considerations.

(1) Based on the EA, no significant adverse environmental impacts are anticipated to result from approving and implementing the Extension Lease, which is the Proposed Action. Following is a summary of effects, by resource, based on the EA.

Resource	EA Section	Overall Effects	
		Short-Term	Long-Term
Air Quality	3.3	Negligible to minor adverse	Minor beneficial
Climate and Climate Change	3.4	Negligible	Negligible
Geological, Mineral, and Paleontological Resources	3.5	Negligible	Negligible
Soils	3.6	Negligible to minor adverse	Minor beneficial
Solid and Hazardous Waste	3.7	Minor adverse	Negligible
Water Resources	3.8	Minor adverse	Minor beneficial
Special Status Species	3.9	Negligible to minor adverse	Negligible
Fish and Wildlife	3.10	Negligible to minor adverse	Negligible to minor beneficial
Vegetation	3.11	Negligible to minor adverse	Negligible to minor beneficial
Land Use and Recreation	3.12	Minor adverse	Minor adverse and beneficial
Public Health and Safety	3.13	Negligible to moderate adverse; minor beneficial	Minor to moderate adverse and beneficial
Cultural Resources	3.14	Minor adverse	Minor to moderate beneficial
Socioeconomics and Environmental Justice	3.15	Moderate adverse and beneficial	Moderate adverse and beneficial
Indian Trust Assets	3.16	Minor to moderate adverse and beneficial	Minor to moderate adverse and beneficial

There will be no cumulatively significant impacts under the Proposed Action, when compared to the No Action alternative.

(2) The Proposed Action will not result in any significant adverse effects on public health or safety. Under the Proposed Action, the NGS will operate until December 22, 2019. The 2 years of operation will provide continued employment, income, and revenues to local residents. The economic benefits associated with continued employment are expected to lead to continued access to health services, better nutrition, and better overall well-being. The continued revenues will support social services and government programs that promote community health.

The Proposed Action will result in continuation of the existing emissions and resultant impacts for 2 years. The Human Health Risk Assessment (HHRA) results indicate that negligible impact on human health will occur in the vicinity of the NGS during this time. Similarly, the human health impacts from KM operations also will be negligible. A possible exception could be the potential impacts on sensitive

subpopulations with existing conditions that could be exacerbated by slight increases in emissions of particulate matter with an aerodynamic diameter of 2.5 microns or less (PM_{2.5}). Adverse impacts associated with continued operations at maximum capacity could increase the current 24-hour and annual PM_{2.5} concentrations; however, the maximum cumulative impact on 24-hour and annual PM_{2.5} concentrations will still meet the National Ambient Air Quality Standards (NAAQS) criteria protecting human health.

Under the Proposed Action, 2 years of NGS operations will result in a short-term additional risk of an accident or event that could result in risk of exposure to sensitive receptors or the public; this additional risk is not significant. The NGS must comply with regulations and public safety procedures; this will result in a low likelihood of accidents or risk exposures occurring, and a low magnitude of consequence. The effects on public health will be negligible and short-term.

Noise from the NGS operations will not change from current levels. There are no sensitive receptors within 0.5 mile of the NGS or 200 feet of the Black Mesa and Lake Powell (BM&LP) Railroad. At these distances, sound levels will not approach levels that are associated with hearing impairment at these sensitive receptors, and no adverse noise impacts are anticipated to occur during these 2 years of NGS operation. Similarly, noise and vibrations associated with current mining operations will not change over the 2-year period of additional mining activities. Noise reduction measures that are currently implemented will continue to be followed during the 2 or less years of operations. Noise and vibration levels from blasting are anticipated to remain within standards established in 30 CFR 816.67, related to use of explosives and control of adverse effects. Based on the relatively short duration (2 years), the overall health and safety impacts from both the NGS and KM operations will be adverse, but not at significant levels. The nearest noise-sensitive receptors to the NGS are four scattered residences approximately 1 to 2 miles to the southeast near Arizona Highway 98; no noise impacts from blasting during retirement activities are anticipated to affect sensitive receptors.

Adverse air quality and health risk impacts during retirement activities will be localized and limited to the period in which retirement activities occur. Furthermore, best management practices for dust control will be adopted to minimize emissions, protect air quality, and reduce health risk impacts. Retirement of the NGS will eventually eliminate emissions of PM and chemicals of potential concern from the facility and vicinity. The long-term ambient air quality will improve.

Transport of hazardous materials will follow federal and state regulations. There will be no change to transportation incident risks involving hazardous materials; however, the risk will be present for 2 years or less during NGS and KM operations. Transportation of hazardous materials during retirement activities will be the same as under the No Action alternative but will occur over 5 years instead of 3 years for NGS retirement activities. Hazardous materials and solid waste impacts due to retirement will, in the long term, be negligible, because removal and cleanup of potential contaminants and restrictions on future use of the NGS sites and landfill areas will contribute to overall restoration of the site and reduce the risk of exposure of hazardous materials to sensitive receptors in the future. This is not a significant adverse effect.

Maintenance activities for the STS and WTS on Navajo Nation Tribal Trust Lands will result in exhaust emissions and fugitive dust emissions from infrequent vehicular traffic on unpaved roads. Similar impacts will occur as a result of ultimate retirement of the STS and WTS. Air pollutant emissions from these activities will be infrequent, of short duration, and localized, and are not significant.

(3) Implementing the Proposed Action is not anticipated to result in direct adverse impacts on unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas. The degree to which the Proposed Action will impact historic or cultural resources is described below under Consideration (8).

Any changes in wetland or riparian vegetation from increases in storage volume at Lake Powell will be negligible. No prime farmlands, wild and scenic rivers, or ecologically critical areas are in the vicinity of the project area. Upon removal of NGS facilities, any NGS-related contribution to the impairment of the viewsheds of Glen Canyon National Recreation Area and Antelope Canyon Tribal Park will cease; however, implementation of the Proposed Action will delay NGS retirement by 2 years. This is not a significant impact.

(4) The effects on the quality of the human environment are not likely to be highly controversial, as defined in 43 CFR § 46.30.³ The public health analysis follows National Research Council and the North American Health Impact Assessment Practice Standards Working Group guidelines for assessing public health impacts of potential projects. The human health risk assessments summarized in the EA were conducted in accordance with standard EPA risk assessment methodology (Section 3.13). Air quality analyses utilized publicly available data used for regulatory reporting purposes, and follow EPA methodologies (Section 3.3). None of the methods or tools used in the evaluation of potential effects are scientifically controversial.

(5) Highly uncertain, unique, or unknown risks affecting the human environment are not anticipated to occur as a result of this Proposed Action. Both the NGS and the KM have operated for 40 or more years; these operations will not change over the next 2 years. The Retirement Guidelines and subsequent Retirement Plan, which will dictate how retirement is to be accomplished, will ensure compliance with all federal regulations and industry standards regarding safety and material handling procedures.

(6) The Proposed Action will not establish a precedent for future actions and will not represent a decision in principle about a future consideration. While the EA indicates efforts are underway to secure new owners to operate the NGS after December 2019, it specifically states the decisions being analyzed in the EA will not authorize coal-fired generation at the NGS after December 2019 (Section 1.3). Any proposal to operate the NGS post-2019 will first need to be negotiated among appropriate parties and will then require compliance with NEPA and/or other related environmental regulations.

(7) Cumulatively significant impacts are not anticipated to occur as a result of the Proposed Action. Cumulative impacts include past and present actions that have occurred or are ongoing in the analysis area, as well as reasonably foreseeable future actions. The past, present, and reasonably future actions that were considered in the EA are briefly described in Section 3.2. No adverse or beneficial impacts from the Proposed Action are significant, when added to past, present, and reasonably foreseeable future actions. Cumulative impacts on special status species will be minor. N-Aquifer water will be used for 2 years for mining operations, and then at a reduced rate until 2035 for mine reclamation and restoration purposes. Groundwater levels are expected to rebound due to reduced and then eliminated pumping; however, this rebound is anticipated to be offset by increased Navajo and Hopi community pumping. NGS and KM operations for 2 years and shutdown thereafter will not result in a significant addition or elimination of greenhouse gas emissions statewide, nationally, or globally.

(8) Reclamation and BIA have initiated consultation with the Navajo Nation Tribal Historic Preservation Officer concerning on-the-ground retirement activities at the NGS site. Ongoing NGS operations will not result in any new land-disturbing activities. Once areas that are anticipated to be disturbed by retirement activities have been identified through the process described in the Extension Lease, a Class III survey will be undertaken as part of the Section 106 consultation. The Section 106 consultation will involve coordination with other interested tribes including but not limited to the Hopi Tribe and Pueblo of Zuni. Retirement activities that cannot avoid historic properties will be evaluated for

³ *Controversial* refers to circumstances where a substantial dispute exists as to the environmental consequences of the proposed action and does not refer to the existence of opposition to a proposed action, the effect of which is relatively undisputed (43 CFR § 46.30).

project effects prior to any land-disturbing activities, and any adverse effects will be resolved under a memorandum of agreement among the lead federal agencies, the Navajo Nation, SRP, and appropriate consultation parties. This commitment is included in the EA (see Section 3.14.6 of the EA).

Unanticipated discoveries could occur during continued KM operations and remediation activities; effects on unknown historic properties will be short-term and adverse. Potential discoveries will be mitigated per existing Navajo Nation policy.

Continued operations and reclamation of the KM will continue to affect Black Mesa as a traditional cultural property (TCP). However, effects on Black Mesa from the KM have already occurred. Once KM operations cease, mine reclamation and remediation activities will continue to adversely affect Black Mesa as a TCP. However, once mine reclamation and remediation activities have been completed, the effect of the Proposed Action on Black Mesa will be beneficial in the long term.

Routine operation and maintenance (O&M) of the transmission systems over the life of the Extension Lease will mirror existing O&M activities. If actions exceed current O&M activity types, then the process outlined in Section 106 of the National Historic Preservation Act will be followed. When retirement of the transmission systems is considered, Reclamation will then determine if it has an action to take.

(9) No federally protected species or areas designated as critical habitat will be adversely affected by the Proposed Action. For impacts related to the Proposed Action, Reclamation and BIA have made a determination of “may affect, not likely to adversely affect” for the following federally threatened, endangered, and candidate wildlife and plant species: Mexican spotted owl, Southwestern willow flycatcher, Western yellow-billed cuckoo, bonytail, Colorado pikeminnow, Humpback chub, razorback sucker, Fickeisen plains cactus, Brady’s pincushion cactus, and Welsh’s milkweed. Reclamation and BIA have made a determination of “may affect, not likely to adversely affect” on designated critical habitat for the razorback sucker, bonytail, Colorado pikeminnow, and humpback chub. A Biological Assessment of the project was submitted to the U.S. Fish and Wildlife Service (USFWS) on September 18, 2017. USFWS concurred with the Bureaus’ findings in a memorandum dated October 20, 2017. This memorandum is provided as Appendix 5 to the EA.

(10) The Proposed Action does not threaten to violate federal, state, local, or tribal laws or requirements imposed for the protection of the environment. The NGS Lessees, the Navajo Nation, and federal agencies are required to comply with all applicable requirements in the implementation of the Extension Lease.

(11) Reclamation and BIA solicited public comments on the NGS Extension Lease and draft FONSI from October 5 through November 3, 2017. Comments were received from 10 entities representing an individual (1), tribal governments (5), a nongovernmental organization (NGO) (1), a group of NGOs (1), an NGS Participant (1), and a company in a related field (1).

Relevant substantive comments that were received addressed the following:

- Issues raised about the NEPA process (all reasonable alternatives were not considered; the KM is a connected action, and both the NGS and the KM need to be considered in the same NEPA document)
- Inaccurate and/or inadequate information regarding existing conditions
- Environmental impacts were not adequately evaluated
- Mitigation for CAP tribes

- A FONSI is not supported/appropriate

All comments have been carefully considered. Responses to relevant substantive comments are provided as Appendix 6 to the EA, which also includes a copy of all comments received. Corrections and clarifications have been made to the EA where appropriate (see 43 CFR § 46.305(b)). None of the impacts were determined to be significant as a result of consideration of these comments.

REFERENCES

Documents related to this action are identified below.

Bureau of Reclamation (Reclamation) and Bureau of Indian Affairs (BIA). 2017. Navajo Generating Station Extension Lease Environmental Assessment – November 2017.

Salt River Project Agricultural Improvement and Power District (SRP). 2017. Press Release: Owners Vote on Navajo Coal Plant Lease – Agree to Work with Navajo Nation to Keep Plant Running through 2019. <http://www.srpnet.com/newsroom/releases/021317.aspx>. February 13.