

**FINDING OF NO SIGNIFICANT IMPACT (FONSI) /
FINDING OF NO PRACTICABLE ALTERNATIVE (FONPA)
for
BEALE WAPA
INTERCONNECTION PROJECT (BWIP)**

Pursuant to the Council on Environmental Quality (CEQ) regulations for implementing the procedural provisions of the National Environmental Policy Act of 1969 (NEPA), Title 40 of the Code of Federal Regulations (CFR) Parts (§§) 1500-1508 and the Air Force Environmental Impact Analysis Process Regulations (32 CFR Part [§] 989), the U.S. Air Force (Air Force) has prepared this Environmental Assessment (EA) to evaluate the potential impacts on the natural and human environment associated with Beale Air Force Base's (AFB), herein Beale AFB, interconnection request to Western Area Power Administration (WAPA) in Yuba County, California.

Purpose and Need

The project is needed because the Department of Defense (DoD) issued an Electric Power Resilience (ERP) memorandum in December 2013 that documented key resilience policies and requested that DoD installations adhere to them. It directed an ERP review to examine installation adherence to key resilience policies, identify gaps in policy, and define future energy resilience requirements.

In response to this directive, Beale AFB began planning to repair aged and outdated electrical infrastructure following the components defined in satisfying critical energy/power supply requirements. Currently, all electricity to Beale AFB is WAPA power delivered via Pacific Gas and Electric Company (PG&E) infrastructure; specifically, PG&E is contracted to deliver 25 megawatts (MW) to Beale AFB through two existing PG&E lines. As part of the planning activities in response to the DoD's memorandum, it was determined that Beale AFB is expected to require 38 MW by 2022 (personal communication Kemp, 2019). Additionally, communications between Beale AFB and PG&E revealed that in the event of a power outage PG&E would prioritize first responders and other institutions (e.g., hospitals) before Beale AFB.

For these reasons, Beale AFB is requesting an interconnection with WAPA's existing Cottonwood-Roseville line to provide Beale AFB with an electricity supply that would support their current and future missions.

Proposed Action

The Proposed Action also referred to as the Northern B Alternative, totals approximately 4.3 miles of transmission line; approximately 0.9 mile located off Beale AFB and 3.4 miles on Beale AFB. It would consist of approximately 1.8 miles of overhead installation (0.9 mile off Beale AFB and 0.9 mile on Beale AFB) and 2.5 miles of underground installation (all within Beale AFB boundaries).

The Proposed Action alignment would begin at its interconnection point perpendicular to the existing Cottonwood-Roseville line; overhead double-circuit 230-kilo-volt (kV) lines would continue in a nearly straight east-to-west line following existing agricultural dirt roads up to the westernmost edge of Beale AFB. Portions of the line located off Beale AFB boundaries are bordered by agricultural fields to the north and south. Once on Beale AFB, the alignment would traverse flat, open grasslands interspersed with seasonal wetlands (i.e., vernal pools), curving to avoid aquatic resources (see Section 2.2 pg 2-1, Project Design Features), existing infrastructure, and runway clearances. The transmission line continues as 230-kV overhead until its connection with a proposed new substation located along Patrol Road. The proposed new substation would step down the voltage to 60-kV, then the line would be routed

underground in accordance with Beale's design and construction. The underground portion of the alignment curves northeast before turning southeast under Doolittle Drive and terminating at the existing Doolittle Drive Substation. Figure 1 is a map of the Project area, including all action alternatives.

Alternatives

Beale AFB evaluated about 15 alternative routes, each following the same general east-to-west trajectory from WAPA's Cottonwood-Roseville line and terminating in the vicinity of Doolittle Drive. While none of the 15 routes met every selection standard, after further screening, Beale AFB dismissed all but two routes as being in too much conflict with the goals of the selection standards. Beale AFB requested that WAPA consider these two alternatives for interconnection, referred to in this EA as the Northern A Alternative and Southern Alternative. Beale AFB determined these are the most feasible and least impactful options. The Proposed Action (Northern B Alternative) was added later as a result of input received during public scoping.

No Action Alternative

Under the No Action Alternative, WAPA would not construct the proposed interconnection line. Through this alternative, Beale AFB would not be delivered reliable, resilient, and redundant electrical power in adhering to the DoD directive for the ERP, leaving the USAF and Beale AFB vulnerable to increased electrical failures and unplanned power outages which could interrupt execution of USAF missions.

Northern A Alternative

The Northern A Alternative alignment is very similar to the Proposed Action alignment, sited about 0.5 mile south of the Proposed Action and crossing Reed's Creek at a different location (see **Figure 1**). It totals approximately 4.5 miles of transmission line, approximately 0.8 mile located off Beale AFB and 3.7 on Beale AFB. It would consist of approximately 2 miles of overhead installation (0.8 mile off Beale AFB and 1.2 miles on Beale AFB), and 2.5 miles of underground installation (all within Beale AFB boundaries).

Beginning at its interconnection point perpendicular to the existing Cottonwood-Roseville line, overhead 230-kV lines would continue in a near-straight east-to-west line, bisecting agricultural fields up to the westernmost edge of Beale AFB. Portions of the line located off Beale AFB boundaries are bordered by agricultural fields to the north and south. Once on Beale AFB, the alignment traverses flat, open grasslands interspersed with seasonal wetlands (i.e., vernal pools), curving to avoid aquatic resources (see Section 2.2 pg 2-1, Project Design Features), existing infrastructure, and runway clearances. The transmission line continues as 230-kV overhead until its connection with the proposed new substation located along Patrol Road (same substation configuration and location as the Proposed Action). The alignment then follows the exact same path as the Proposed Action, the underground portions following under Doolittle Drive and terminating at the existing Doolittle Drive Substation.

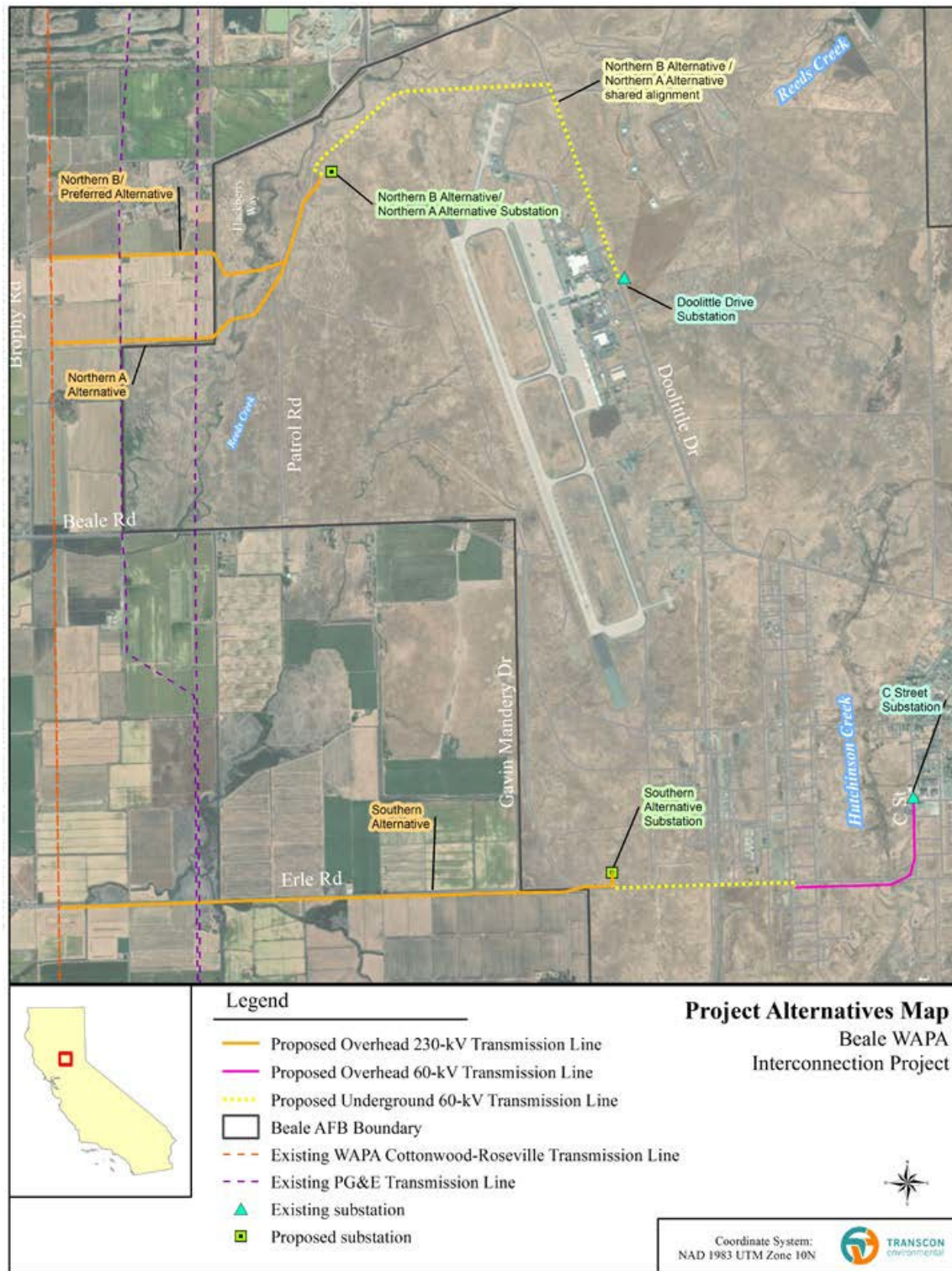


Figure 1: Project Alternatives Map

Southern Alternative

The Southern Alternative is located about 3.25 miles south of the Proposed Action and Northern A Alternative alignments (see **Figure 1**). It totals approximately 5 miles of transmission line, approximately 2.5 miles located off Beale AFB and 2.5 on Beale AFB. It would consist of approximately 4.4 miles of overhead installation (2.5 miles of 230-kV off Beale AFB, 0.4 mile of 230-kV on Beale AFB, and 1.5 miles of 60-kV on Beale AFB); and 1 mile of underground installation (all within Beale AFB boundaries). The overhead 60-kV component is unique to the Southern Alternative (neither the Proposed Action nor the Northern A Alternative include 60-kV overhead structures); specifications for those structures are described below.

Beginning at its junction with WAPA's Cottonwood-Roseville line, the Southern Alternative follows Erle Road, which is bordered by privately-owned agricultural rice fields to the north and south. Once on Beale AFB, the alignment continues aerially along Gavin Mandery Drive for approximately 0.4 mile to the proposed new substation, after which the line would route underground beneath existing road substrates along Gavin Mandery Drive for 1 mile to prevent the need for flight clearance requirements, emerge back to overhead, and continue 1 mile east before turning north and following C Street for 0.5 mile to terminate at the existing C Street Substation.

Environmental Consequences

The Proposed Action would have no impacts on scenic viewpoints or highways; forestlands; cultural, tribal, and paleontological resources; geological hazards; floodplains; groundwater or water quality; land use or population growth; hazardous materials; water supply; or wastewater facilities. Long-term beneficial impacts would occur to storm drainage and to Beale AFB electrical & communications systems.

Negligible to minor impacts would occur on aesthetics for residents in the immediate area; farming operations; air quality, greenhouse gas (GHG) emissions, and climate change; vegetation communities and plants; geology and soils; surface water and wetlands; recreation; wildfire risk and electromagnetic field exposure; transportation and traffic; storm water runoff; and solid waste management.

Short-term Moderate impacts would occur to agricultural use and wildlife; this includes permanent removal of 10.07 acres of upland vegetation habitats (annual grasslands, agriculture, barren, and urban) for proposed structures and new access roads, and temporary disturbance of 44.27 acres of upland habitats from Project construction activities. Impacts to seasonal wetland habitats (potentially jurisdictional roadside ditches) would result from the installation of 6 new culverts for new access roads and the replacement of 8 culverts on existing roads. Disturbance to wetland habitat as a result from culvert work would include 0.02 acre of permanent impacts and 0.05 acre of temporary impacts (**Appendix I**). No major long-term impacts on demographics or social services and conditions would be expected, including demand for housing, education, law enforcement, fire protection, emergency medical services, and medical services. Disproportionate impacts on minority or low-income populations would not be expected.

Resource Protection Measures

Resource protection measures have been developed to lessen or minimize potential effects to resources. These are inclusive of Applicant Proposed Measure, Project Conservation Measures (PCMs), Standard Operating Procedures (SOPs), Best Management Practices (BMPs), and Avoidance and Minimization Measures (AMMs), collectively referred to as resource protection measures. These measures intend to achieve a common goal of minimizing effects from the Project and the terms are generally used synonymously (PCMs and SOPs are WAPA-specific terms

commonly referenced in the biological analysis and when referring to WAPA programs). Resource protection measures are listed at the end of every Chapter 4 section in the Environmental Assessment.

An extensive list of resource protection measures that addresses potential impacts to aesthetics/visual resources; agriculture and forestry resources; air quality, GHG emissions, and climate change; biological resources; cultural resources; geology/soils; hydrology/water quality; land use, Air Installation Compatible Use Zone Planning (AICUZ) compatibility, population growth, and recreation; noise; public health & safety and hazardous materials; and transportation/traffic has been created in coordination with regulatory agencies during the permitting process and is to be verified during final design—this list of resource protection measures can be found in Appendix D within the EA. Due to the considerable length of these resource protection measures, the list is not produced in this FONSI in accordance with Incorporation by Reference 40 CFR § 1502.21; however, all the resource protection measures within Appendix D are legally binding and must be carried out as the proponent implements the project pursuant to 32 CFR § 989.22 (b).

Public Review and Stakeholder Coordination

Because the Project crosses only private and Beale AFB land, no other land management agencies were invited to cooperate for this EA. A total of 4 federal, 9 state, and 16 local agencies were notified and invited to provide comments during the scoping period of the Project. The details of agency scoping efforts, including a list of agencies contacted, copies of correspondence, and the comments received, are described in the Scoping Summary Report (**Appendix B**). WAPA and Beale AFB, as joint leads, are sharing consultation responsibilities for the Project. Pursuant to the federal Endangered Species Act of 1973 (ESA), Beale AFB is leading consultation efforts with the U.S. Fish and Wildlife Service (USFWS) on potential impacts from the Project to threatened and endangered species. Pursuant to the Clean Water Act of 1977 (CWA), WAPA notified the California State Regional Water Quality Control Board (RWQCB) regarding potential impacts to state waters. The RWQCB would engage with the Project if an application for a Section 401 Certification is required. WAPA would apply for a CWA Section 404 permit from the U.S. Army Corps of Engineers (USACE) and a CWA Section 401 permit (Water Quality Certification) from the RWQCB should the Project impact wetlands or water features, as informed by the completed environmental analysis and final engineering.

Finding of No Significant Impact

Based on my review of the facts, analyses, and proposed resource protection measures presented in the attached EA, I conclude that the Proposed Actions would not have a significant impact on the natural or human environment either by itself or cumulatively noted below. The requirements of NEPA and the CEQ's regulations have been fulfilled. An Environmental Impact Statement is not required and will not be prepared. This analysis fulfills the requirements of the NEPA, the President's CEQ 40 CFR §§ 1500 – 1508, and the USAF regulation 32 CFR § 989.

Finding of No Practicable Alternative

Executive Order (EO) 11990, *Protection of Wetlands*, (24 May 1977) directs agencies to avoid to the extent possible the long- and short-term adverse impacts associated with the destruction or modification of wetlands and to avoid direct or indirect support of new construction in wetlands wherever there is a practicable alternative. Federal agencies are to avoid new construction in wetlands, unless the agency finds there is no practicable alternative to construction in the wetland and the proposed construction incorporates all possible measures to limit harm associated with development in the wetland. Agencies should use economic and environmental data, agency mission statements, and any other pertinent information when deciding whether or not to build in wetlands. EO 11990 directs each agency to

provide for early public review of plans for construction in wetlands. In accordance with EO 11990 and 32 CFR § 989, a Finding of No Practicable Alternative (FONPA) must accompany the Finding of No Significant Impact (FONSI) stating why there are no practicable alternatives to development within or affecting wetland areas.

Similarly, EO 11988, *Floodplain Management* (May 24, 1977), requires Federal agencies to avoid to the extent possible the long and short-term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative. If it is found that there is no practicable alternative, the agency must minimize potential harm to the floodplain and circulate a notice explaining why the action is to be located in the floodplain prior to taking action. Finally, new construction in a floodplain must apply accepted flood proofing and flood protection to include elevating structures above the base flood level rather than filling in land. In accordance with EO 11988, a FONPA must accompany the FONSI stating why there are no practicable alternatives to development within or affecting floodplains.

The Proposed Actions would result in impacts to wetlands but not floodplains. The following FONPA is, therefore, presented with the FONSI, pursuant to EO 11990.

Wetlands: Wetland impacts would be reduced to the maximum extent possible through project design and implementation of environmental protection measures. Pursuant to Section 404(b)(1) of the CWA, wetland impacts must be avoided to the greatest extent practicable. The Project has been designed and its alignment situated to avoid surface waters and minimize impacts to aquatic resources (see Section 2.2, Project Design Features within the EA). Short-term impacts on wetlands and vernal pools within the Project area would be expected from culvert construction. Impacts to seasonal wetland habitats (potentially jurisdictional roadside ditches) would result from the installation of 6 new culverts for new access roads and the replacement of 8 culverts on existing roads; this disturbance includes 0.02 acre of permanent impacts and 0.05 acre of temporary impacts (**Appendix I**). See Section 4.5.1, Vegetation Communities Environmental Consequences, for more information on vernal pool impacts from culverts. Channel topography and underlying substrates would not be modified with the installation of horseshoe culverts and no net loss in drainage would occur. Replacement of the eight existing culverts may improve the drainage at those locations.

Prior to any construction, a Section 404 permit would be submitted to the USACE Sacramento District to ensure compliance with the CWA. In addition, a Section 401 Water Quality Certification would also be submitted to the Central Valley Regional Water Quality Control Board (CVRWQCB). Furthermore, a storm water pollution prevention plan (SWPPP) would be developed and followed for the project duration.

During construction and O&M activities, runoff from site improvements could result in a slight increase in turbidity in surface waters within the Project area. Potential impacts from an increase in turbidity would be minimized with implementation of BMPs (e.g., wetting of soils, silt fencing, and detention basins) and adherence to erosion and storm water management practices to contain soil and runoff on the Project area. In addition, erosion-control BMPs in accordance with the Beale AFB SWPPP (Beale AFB 2018b) would be implemented as needed, including installation of silt fencing and straw wattles, grading during the dry season, compaction of upland spoils (for soil stability), and seeding and mulching areas of exposed soil as determined necessary by the Beale AFB storm water manager.

As noted in the attached EA, there are no practicable alternatives to the Proposed Actions that would avoid all impacts or further minimize impacts to wetlands because the objectives sought by this project precludes the selection of any practicable alternatives due to mission requirements, installation layout constraints, and the nature of proposed projects. In addition to the Proposed Action, multiple project sites were evaluated throughout the base using the selection standards identified in the EA. Beale AFB's selection standards during screening of alternatives considered interference with existing Beale AFB infrastructure (e.g., runways, explosion arcs, etc.); potential for environmental impacts (e.g., known wetlands, flood zones, etc.); security and the line and substation's vulnerability to vandalism or damage; existing access to Project facilities and limiting need for new roads; land purchases for infrastructure off Beale AFB; and the location where the line comes on Beale AFB such that it can deliver power across Beale AFB's existing distribution network.

Analysis of the alternatives revealed that, compared to the other two action alternatives, the Northern B Alternative (Proposed Action) would have less impacts to private landowners off Beale AFB, and would have less impacts to aquatic resources and wetlands. Additionally, the Northern B Alternative would better meet Beale AFB's selection standards for the Project; that is, the Northern B Alternative would not interfere with Beale AFB infrastructure, has relatively less environmental impacts compared to other alternatives, situates the substation onto Beale AFB for higher security, mostly follows existing roads eliminating the need for new road construction, and requires less land purchases off of Beale AFB (see Section 2.5 for more information on Beale AFB selection standards). Therefore, as analysis of the alternatives continued, WAPA and Beale AFB agreed that the Northern B Alternative is their Preferred Alternative, but that the EA shall consider impacts from all alternatives equally. Taking all the environmental, economic, and other pertinent factors into account, pursuant to EO 11990, the authority delegated by Secretary of the Air Force Order 791.1, and taking into consideration the submitted information, I find that there is no practicable alternative to this action and the proposed action includes all practical measures to minimize harm to the environment.

Floodplains: Implementation of the Proposed Action would have no impact to floodplains or flood zones, since the Project area is outside the 0.2% annual chance floodplain (FEMA 2011).

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Chief, Civil Engineer Division, HQ Air Combat Command (ACC/A4C)

12 Jan 2021
DATE