U.S. Department of Energy
Categorical Exclusion Determination Form

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Proposed Action Title: Liberty Transformer Replacement 600MVA 345/230/24.5KV

Program or Field Office: DOE/Western/Desert Southwest Region

Location(s) (City/County/State): Liberty Substation, Buckeye/Maricopa County/Arizona

Proposed Action Description:
Western proposes to conduct electrical maintenance activities within the existing Liberty Substation located in Buckeye, Maricopa County, Arizona. The project is on federal (Western-owned) property in Section 19 Township 1N, Range 2 West, in every quarter section of 19, Maricopa County, AZ, (Gila and Salt River Baseline and Meridian; Figure 1). The purpose of the project is to upgrade the existing electrical system within Liberty Substation, which is nearing the end of its life expectancy.

The proposed scope of work includes the following (Figure 2):

• Move the existing 600 MVA 345/230/24.5-kV transformer to a new storage pad adjacent to and south of its current location. The new pad will measure 32 feet by 13 feet and a foundation depth of about 4 feet.
• Install a new 600 MVA 345/230/24.5-kV transformer southwest of the existing transformer. The new pad for the transformer will measure 31 feet by 22 feet and have a foundation depth of about 4 feet.
• Install a 24.5-kV disconnecting switch and 2 motor–driven, 230-kV, 1600-amp interrupter switches. The disconnecting switch will require a concrete pad measuring 10 feet by 10 feet and a foundation depth of 3 feet. The new amp interrupter switches will each require a concrete pad measuring 19 feet by 13 feet with a foundation depth of 3 feet.

See continuation sheet

Categorical Exclusion(s) Applied:
B4.11 - Electric power substations and interconnection facilities

For the complete DOE National Environmental Policy Act regulations regarding categorical exclusions, including the full text of each categorical exclusion, see Subpart D of 10 CFR Part 1021.

Regulatory Requirements in 10 CFR 1021.410(b): (See full text in regulation)

☑ The proposal fits within a class of actions that is listed in Appendix A or B to 10 CFR Part 1021, Subpart D.

To fit within the classes of actions listed in 10 CFR Part 1021, Subpart D, Appendix B, a proposal must be one that would not: (1) threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health, or similar requirements of DOE or Executive Orders; (2) require siting and construction or major expansion of waste storage, disposal, recovery, or treatment facilities (including incinerators), but the proposal may include categorically excluded waste storage, disposal, recovery, or treatment actions or facilities; (3) disturb hazardous substances, pollutants, contaminants, or CERCLA-excluded petroleum and natural gas products that preexist in the environment such that there would be uncontrolled or unpermitted releases; (4) have the potential to cause significant impacts on environmentally sensitive resources, including, but not limited to, those listed in paragraph B(4) of 10 CFR Part 1021, Subpart D, Appendix B; (5) involve genetically engineered organisms, synthetic biology, governmentally designated noxious weeds, or invasive species, unless the proposed activity would be contained or confined in a manner designed and operated to prevent unauthorized release into the environment and conducted in accordance with applicable requirements, such as those listed in paragraph B(5) of 10 CFR Part 1021, Subpart D, Appendix B.

☑ There are no extraordinary circumstances related to the proposal that may affect the significance of the environmental effects of the proposal.

☑ The proposal has not been segmented to meet the definition of a categorical exclusion. This proposal is not connected to other actions with potentially significant impacts (40 CFR 1508.25(a)(1)), is not related to other actions with individually insignificant but cumulatively significant impacts (40 CFR 1508.27(b)(7)), and is not precluded by 40 CFR 1506.1 or 10 CFR 1021.211 concerning limitations on actions during preparation of an environmental impact statement.

Based on my review of the proposed action, as NEPA Compliance Officer (as authorized under DOE Order 451.1B), I have determined that the proposed action fits within the specified class(es) of action, the other regulatory requirements set forth above are met, and the proposed action is hereby categorically excluded from further NEPA review.

NEPA Compliance Officer: Lori Marconi Date Determined: 6-6-13

Liberty Transformer Replacement 600 MVA 345/230/24.5-kV

Buckeye, Maricopa County, Arizona

Categorical Exclusion Continuation Sheet

Project Description (Continued)

- Install bus frames (towers, poles, and t-poles). The framing equipment will require excavating a 2- to 4-foot-wide hole at a depth of up to 16 feet.
- Install ducts for the new 600 MVA transformer. The duct installation will require a trench of about 3 feet wide by 4 feet deep over 250 linear feet.

All equipment staging will be located inside the existing fenced boundary of Liberty Substation, which is bladed, leveled, and graveled. Access to the project is via existing public roads. The transformer will be delivered to the substation via railroad and heavy hauling company. The hauling company shall provide pilot vehicles and follow all Department of Transportation guidelines for public safety. Equipment used on-site at Liberty Substation will include 50- and 100-ton cranes; pick-up trucks (gasoline and diesel); flatbed trailers; concrete, tanker, auger, and dump trucks; and backhoes. A temporary construction trailer, storage trailers, and portable toilets will be set up on-site for the duration of the project.

Western anticipates that the project will start January 2, 2014, and will take about 4 months to complete.

Special Conditions

1) COMPLIANCE

   a) With an additional transformer added, a study will need to be conducted on what kind of secondary containment will be needed for Liberty Sub. Once the location is determined for the new transformer and where the new location of the existing out of service transformer, next will need to identify what type of containments will be needed to contain both transformers. Old transformer contains approximately 28,945 gallons of oil. The new transformer will contain roughly the same amount.
   b) Liberty is located in Maricopa County. Maricopa County is located in a nonattainment area deemed by EPA and Arizona Department of Environmental Quality for Particulate Matter 10. Rule 310 applies to all within Maricopa County, so dust control measures will apply, if the area disturbed will meet or exceed 0.1 acre. Also, a dust control permit will be required.
   c) Storm Water Pollution Prevention Plan will be required, if construction site includes clearing, grading, and excavating activities that disturbs one acre or more. A Construction General Permit will be required, by submitting to ADEQ a Notice of Intent (NOI). A SWPPP will be required at the site and Best Management Practices (BMPs) will need to be

implemented.

d) Liberty substation is adding an additional transformer. Navigable water are near the sub, so a MOSES survey will be required to determine if Liberty Sub is a Spill Prevention, Control and Countermeasures (SPCC) site.

e) The transformer that will be replaced was manufactured before July 2, 1979, so transformer and bushings will need to be tested for PCBs.

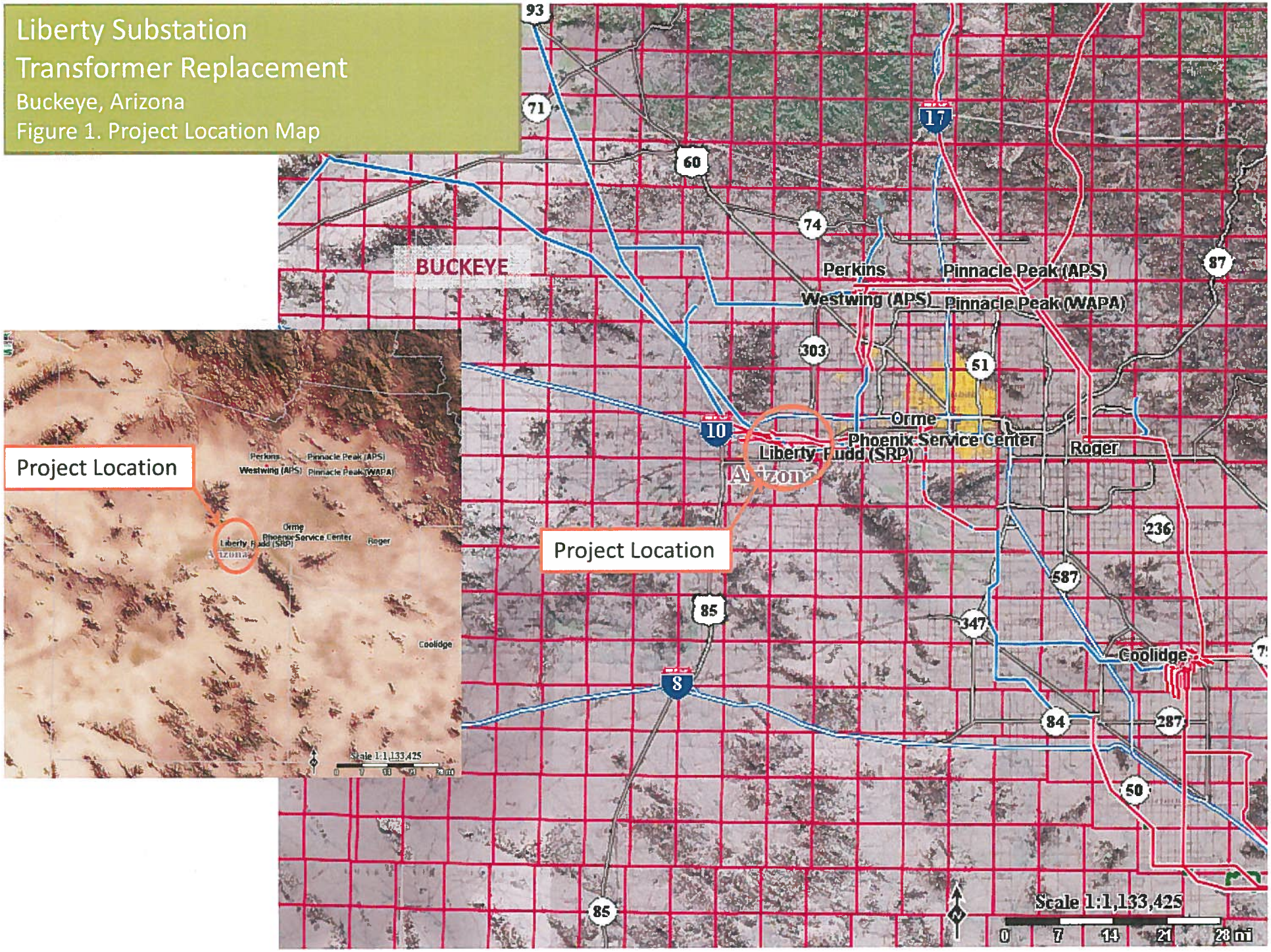
Application of Categorical Exclusions (1021.410)	Disagree	Agree	Unknown
(b)(1) The proposal fits within a class of actions that is listed in appendix A or B to subpart D.		X	
(b)(2) There are no extraordinary circumstances related to the proposal that may affect the significance of the environmental effects of the proposal, including, but not limited to, scientific controversy about the environmental effects of the proposal; uncertain effects or effects involving unique or unknown risks; and unresolved conflicts concerting alternate uses of available resources		X	
(b)(3) The proposal has not been segmented to meet the definition of a categorical exclusion. Segmentation can occur when a proposal is broken down into small parts in order to avoid the appearance of significance of the total action. The scope of a proposal must include the consideration of connected and cumulative actions, that is, the proposal is not connected to other actions with potentially significant impacts (40 CFR 1508.25(a)(1), is not related to other actions with individually insignificant but cumulatively significant impacts (40 CFR 1508.27(b)(7)), and is not precluded by 40 CFR 1506.1 or § 1021.211 of this part concerning limitations on actions during EIS preparation.		X	
B. Conditions that are Integral Elements of the Classes of Actions in Appendix B. :	NO	YES	UNKNOWN
(1) Threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety and health, or similar requirements of DOE or Executive Orders.	X		
(2) Require siting and construction or major expansion of waste storage, disposal, recovery, or treatment facilities (including incinerators), but the proposal may include categorically excluded waste storage, disposal, recovery, or treatment actions or facilities;	X		
(3) Disturb hazardous substances, pollutants, contaminants, or CERCLA-excluded petroleum and natural gas products that preexist in the environment such that there would be uncontrolled or unpermitted releases;	X		
(4) Have the potential to cause significant impacts on environmentally sensitive resources. An environmentally sensitive resource is typically a resource that has been identified as needing protection through Executive Order, statue, or regulation by Federal, state, or local government, or a federally recognized Indian tribe. An action may be categorically excluded if, although sensitive resources are present, the action would not have the potential to cause significant impacts on those resources (such as construction of a building with its foundation well above a sole-source aquifer or upland surface soil removal on a site that has wetlands). Environmentally sensitive	X		

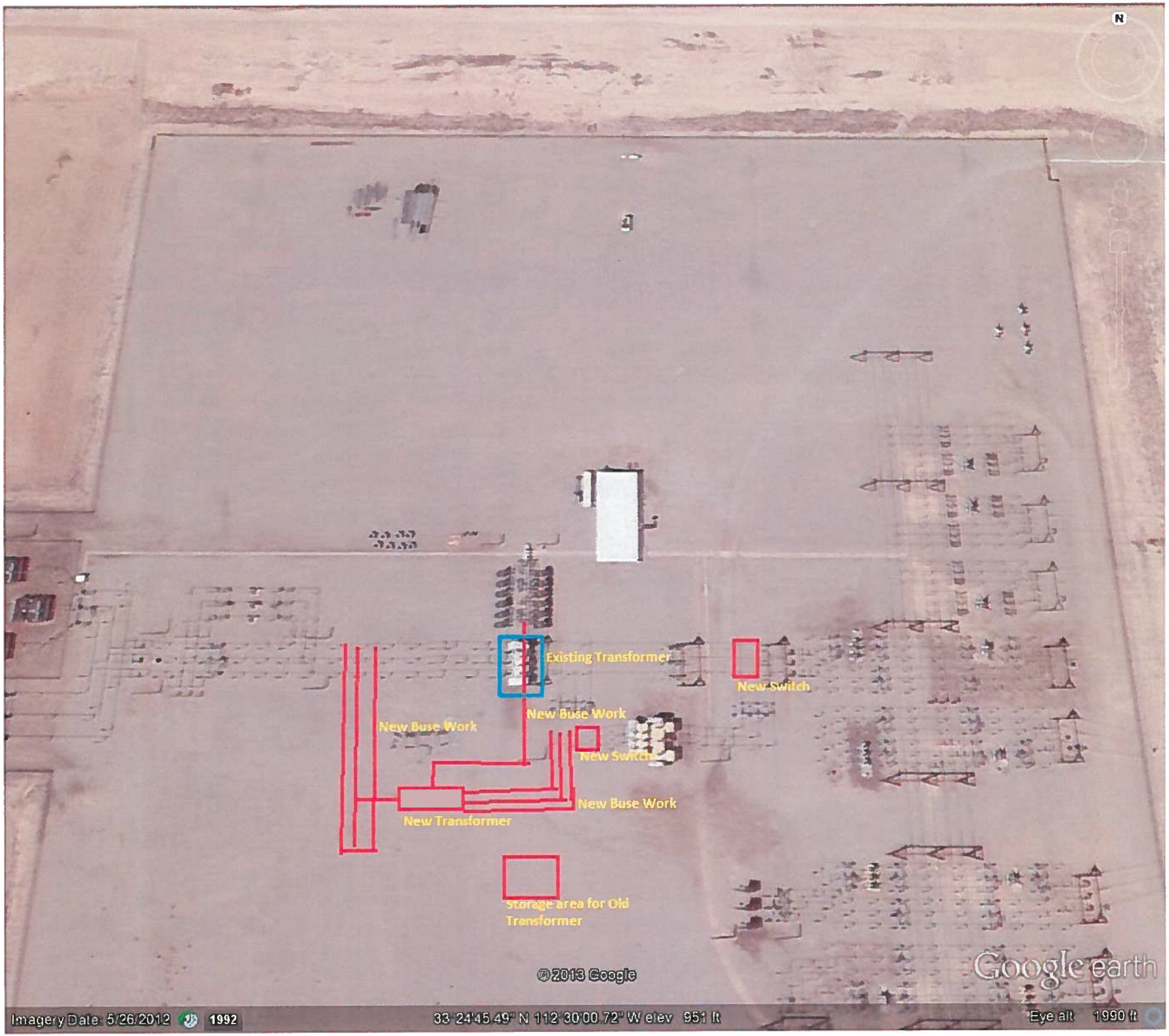
resources include, but are not limited to:			
(i) Property (such as sites, buildings, structures, and objects) of historic, archaeological, or architectural significance designated by a Federal, state, or local government, or property determined to be eligible for listing on the National Register of Historic Places;	X		
(ii) Federally-listed threatened or endangered species or their habitat (including critical habitat) or Federally- proposed or candidate species or their habitat (Endangered Species Act); state-listed or state-proposed endangered or threatened species or their habitat; Federally-protected marine mammals and Essential Fish Habitat (Marine Mammal Protection Act; Magnuson-Stevens Fishery Conservation and Management Act); and otherwise Federally-protected species (such as under the Bald and Golden Eagle Protection Act or the Migratory Bird Treaty Act);	X		
(iii) Floodplains and wetlands (as defined in 10 CFR 1022.4, —Compliance with Floodplain and Wetland Environmental Review Requirements: "Definitions," or its successor);	X		
(iv) Areas having a special designation such as Federally- and state-designated wilderness areas, national parks, national monuments, national natural landmarks, wild and scenic rivers, state and Federal wildlife refuges, scenic areas (such as National Scenic and Historic Trails or National Scenic Areas), and marine sanctuaries;	X		
(v) Prime or unique farmland, or other farmland of statewide or local importance, as defined at 7 CFR 658.2(a), —Farmland Protection Policy Act: Definitions,‖ or its successor;	X		
(vi) Special sources of water (such as sole-source aquifers, wellhead protection areas, and other water sources that are vital in a region); and	X		
(vii) Tundra, coral reefs, or rain forests.; or	X		
(5) Involve genetically engineered organisms, synthetic biology, governmentally designated noxious weeds, or invasive species, unless the proposed activity would be contained or confined in a manner designed and operated to prevent unauthorized release into the environment and conducted in accordance with applicable requirements, such as those of the Department of Agriculture, the Environmental Protection Agency, and the National Institutes of Health.	X		

Liberty Substation Transformer Replacement

Buckeye, Arizona

Figure 1. Project Location Map




Existing Transformer
New Switch
New Buse Work
New Buse Work
New Switch
New Buse Work
New Transformer
Storage area for Old Transformer
© 2013 Google
Google earth
Imagery Date: 5/26/2012
1992
33°24'45.49" N 112°30'00.72" W elev 951 ft
Eye alt 1990 ft