DOE-ID NEPA CX DETERMINATION
Idaho National Laboratory

CX Posting No.: DOE-ID-INL-20-025

SECTION A. Project Title: Idaho National Laboratory (INL) Power Management Maintenance Activities

SECTION B. Project Description and Purpose:

The Power Management organization at Idaho National Laboratory (INL) must perform timely maintenance and inspection activities on power poles and structures, replace poles and structures in poor condition, and inspect and potentially replace other components (e.g., anchors, insulators, cross-arms, wire, etc.) associated with the power distribution system at the INL Site.

Under the proposed action, Power Management personnel perform the following:

- Apply fire retardant to power poles (latex based fire retardant applied to the lower portion of wooden poles)
- Evaluate structures
- Inspect and replaces other powerline components (e.g., anchors, insulators, cross-arms, wire, etc.)
- Install ground rods (about 6 ft. from pole, 8 ft. deep), ground plates, and avian protection devices
- Install and repair air switches
- Remove and replace gravel at established pads
- Remove and replace deficient powerlines and power poles
- Test and treat power poles.

During power pole replacement, Power Management removes poles from about 6' - 8' deep and places a new pole in the old hole or in a new hole in the proximity of the old hole. Crews replace anchors by cutting the old anchor at grade and install new anchors about 6' - 7' deep. Crews drill rock when necessary.

Test and treat removes about 18" of soil from about 12" around poles or structures to allow inspection below grade. After inspection, personnel wrap a physical barrier around the pole to prevent degradation, then replace soil around the pole or structure.

The following discussion lists Power Management maintenance activities that have the potential to result in soil disturbance. This list is not all-inclusive, and work may be performed on other structures not listed here as long as the requirements of this EC are addressed:

CITRC Ckt 53—Replace poles 53-1, 53-2, 53-2A, 53-3, 53-4, 53-5, 53-6, 53-7, 53-8, 53-9, 53-10, 53-11, 53-12, 53-13, 53-14, 53-15, 53-16, 53-17, 53-18, 53-19, 53-20, 53-21, 53-22, 53-23, 53-24, 53-25, 53-26, 53-27, 53-28, 53-29, 53-30, 53-31, 53-32, 53-33, 53-34, 53-35, 53-36, 53-37, 53-38, 53-39, 53-40, 53-41, 53-42, 53-43, 53-44, 53-45, 53-46, 53-47, 53-48, 53-49, 53-50, 53-51, 53-52, 53-53, 53-54, 53-55, 53-56, and 53-56-5.

CITRC Ckt 54—Replace 54-5.

CITRC Ckt 55—Replace 55-5.

CITRC Ckt 56—Replace poles 56-3, 56-4, 56-44, 56-46-6, 56-46-11, 56-46-14, 56-46-15, 56-46-18-1, 56-46-20, 56-46-21, 56-46-22, 56-46-24, 56-46-25, 56-46-31A, 56-46-31B, 56-62, 56-69, 56-78, 56-79, 56-80, 56-81, 56-82, 56-83, 56-83A, 56-84, 56-85, 56-86, 56-86-1, 56-86-2, 56-86-3, 56-86-3A, 56-86-4, 56-87, and 56-88.

CITRC Ckt 57—Replace 57-17.

CFA Ckt 44—Replace poles 44-3, 44-13, 44-22, 44-31, 44-33, 44-37, 44-38, 44-39, 44-41, 44-46, 44-49, 44-51, 44-53, 44-54, 44-58, 44-64, 44-68, 44-70, 44-73, 44-75, 44-77, 44-79-9, 44-79-12, 44-80, 44-85, 44-88, 44-89, 44-93, 44-94, 44-96, 44-97, 44-114 and 44-120.

CFA Ckt 43—Replace poles 43-5-1, 43-5-2, 43-5-3, 43-5-4, 43-5-4A, 43-5-5, 43-5-6 and 43-25.

CFA Ckt 42—Replace poles 42-24, 42-109, 42-53-18, 42-53-20 and 42-110.

CFA Ckt 41—Replace poles 41-3, 41-4, 41-5, 41-6, 41-7, 41-8, 41-8A, 41-21-7, 41-21-7A, 41-21-7B, 41-21-8, 41-21-9, 41-21-10, 41-21-11, 41-21-12, 41-21-13, 41-24-1, and 41-24-2.

RWMC Ckt 49—Replace poles 49-4-1, 49-4-5B, 49-4-6, and 49-14-4.

MFC Ckt 51—Replace poles 51-1A, 51-1B, 51-1C, 51-1D, 51-11, and 51-24.

TAN Ckt 51—Replace poles 51-1, 51-2, 51-3, 51-4, 51-5, 51-6, 51-7, 51-8, 51-9, 51-10, 51-11, 51-12, 51-13, 51-14, 51-15, 51-16, 51-17, 51-18, 51-19, 51-20, 51-21, 51-22, 51-23, 51-24, 51-25, 51-26, 51-27, 51-28, 51-29, 51-30, 51-31, 51-32, 51-33, 51-34, 51-34-1, 51-34-2, 51-34-3, 51-34-4, 51-35, 51-36, 51-37, 51-38 and 51-39.

TAN Ckt 52—Replace poles 52-1, 52-5, 52-33, 52-36, 52-37, 52-38, and 52-50.

TAN Ckt 53—Replace poles 53-1, 53-2, 53-9, 53-10, 53-11, 53-12, 53-13, 53-13-1, 53-13-2, 53-13-3, 53-13-4, 53-14, 53-15, 53-16, 53-17, 53-18, 53-19, 53-20, 53-20-1, 53-21, 53-22, 53-23, 53-24-1, and 53-28.

TAN Ckt 54—Replace poles 54-2A, 54-2B, 54-8, 54-9, 54-10, and 54-11.

TAN Ckt 55—Replace poles 55-1-1, 55-1-2, 55-1-3, 55-7, 55-7-1, 55-17, 55-36-2, 55-37-1, 55-37-34, 55-37-82, 55-37-84, and 55-37-87.

TAN Ckt 56—Replace poles 56-1, 56-5, 56-39, 56-39-1, 56-39-2, 56-39-9-1, 56-39-12-1, 56-39-14-1, 56-39-10A, 56-39-10B, 56-39-10C, and 56-39-10D.

East Loop—Replace structures 1, 84, 103, 107, 128, 146, 152, 156, 157, 164, 172, 183, 199, 211, 213, 215, 235, 239, 242, 260, and 276.

West Loop—Replace structures 2, 3, 4, 30, 37, 47, 51, 52, 64, 74, 75, 91, 99, 106, 109, 111, 114, 116, 117, 120, 122, 129, 144, and 161.

Pit 9—Replace structures 40, and 42.

Figures 1-# show the locations of the pole and structure replacements.

Figure 1. CITRC Pole Replacements

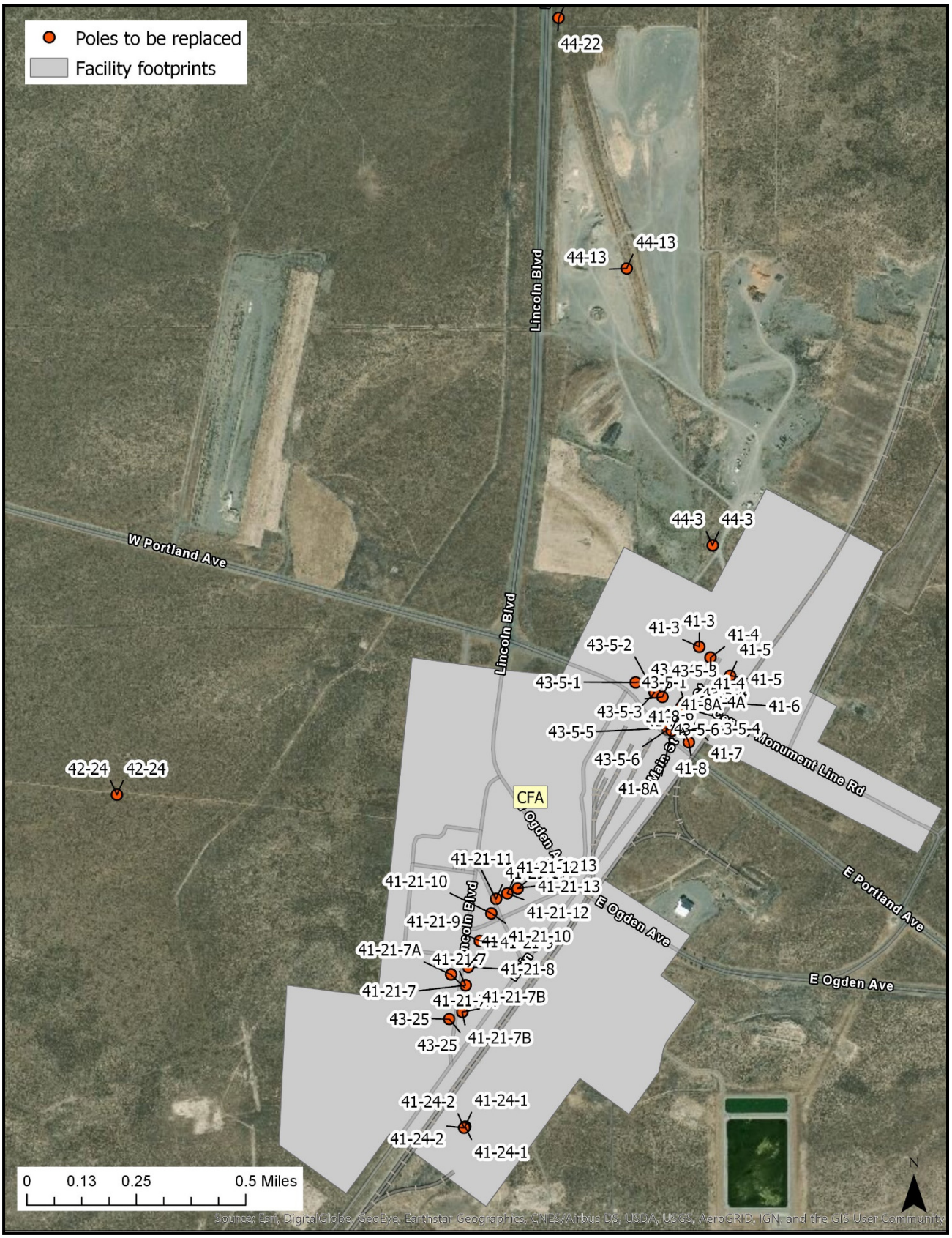


Figure 2. ATR, INTEC Pole Replacements

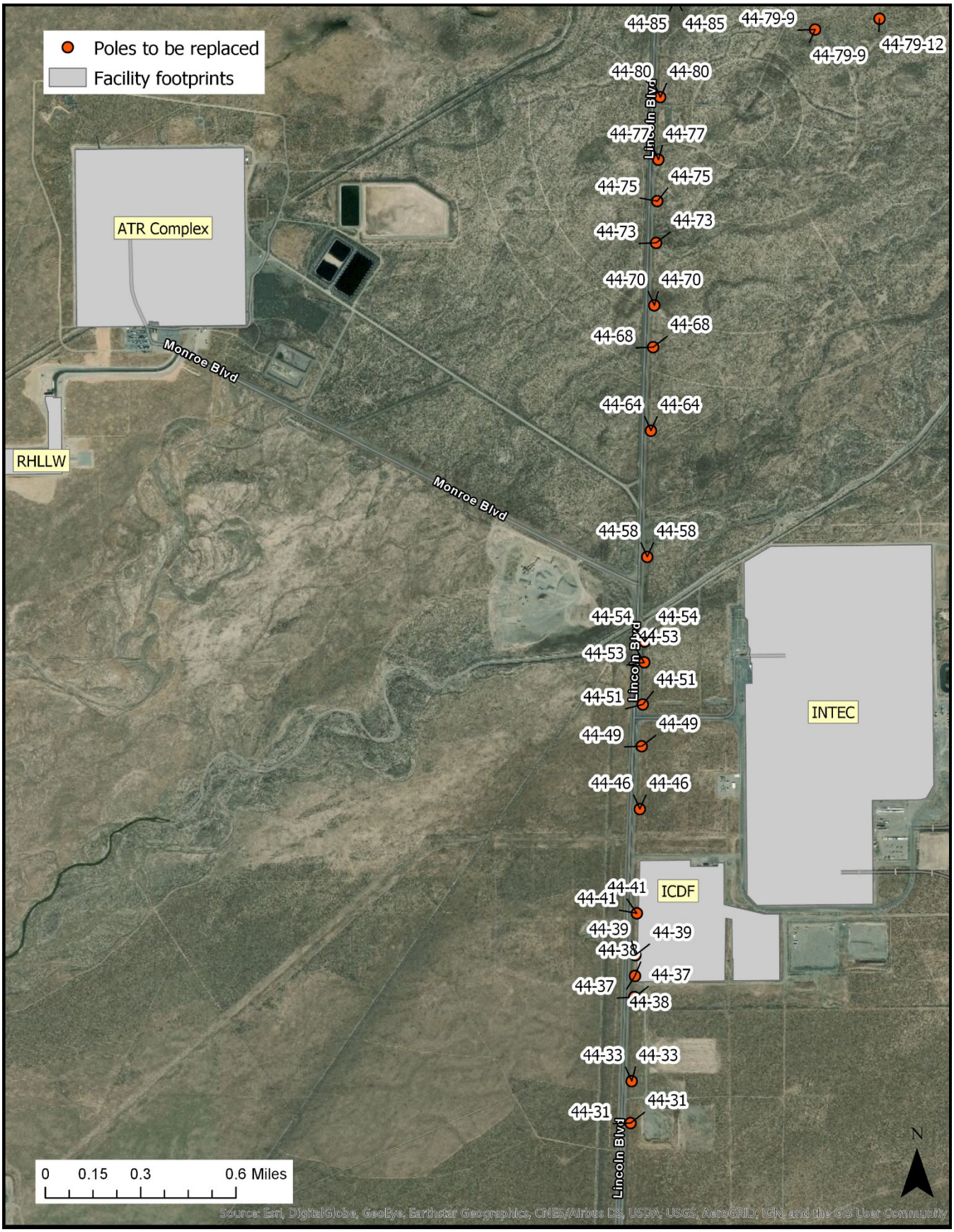

Poles to be replaced
Facility footprints
ATR Complex
RHLLW
Monroe Blvd
Monroe Blvd
Lincoln Blvd
Lincoln Blvd
Lincoln Blvd
INTEC
ICDF
44-85
44-85
44-79-9
44-79-9
44-79-12
44-80
44-80
44-77
44-77
44-75
44-75
44-73
44-73
44-70
44-70
44-68
44-68
44-64
44-64
44-58
44-58
44-54
44-54
44-53
44-53
44-51
44-51
44-49
44-49
44-46
44-46
44-41
44-41
44-39
44-39
44-38
44-38
44-37
44-37
44-33
44-33
44-31
44-31
0 0.15 0.3 0.6 Miles
N
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Figure 3. ARA, PLTA Pole Replacements

Figure 4. CITRC Pole Replacements

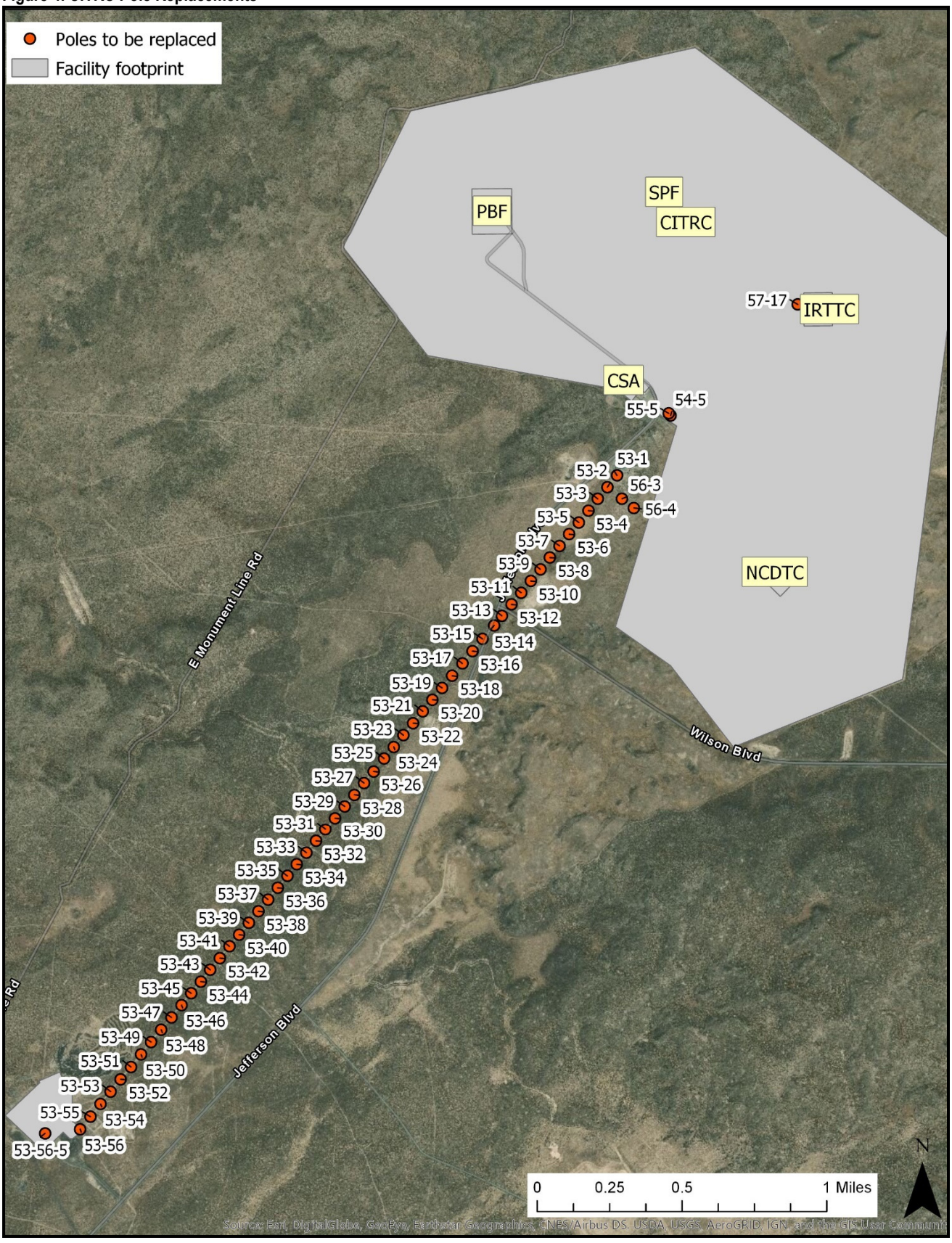


Figure 5. MFC Pole Replacements (Approximate locations)


TREAT
51-24
Harrison Blvd
51-11
MFC
0
0.07
0.15
0.3 Miles
N
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

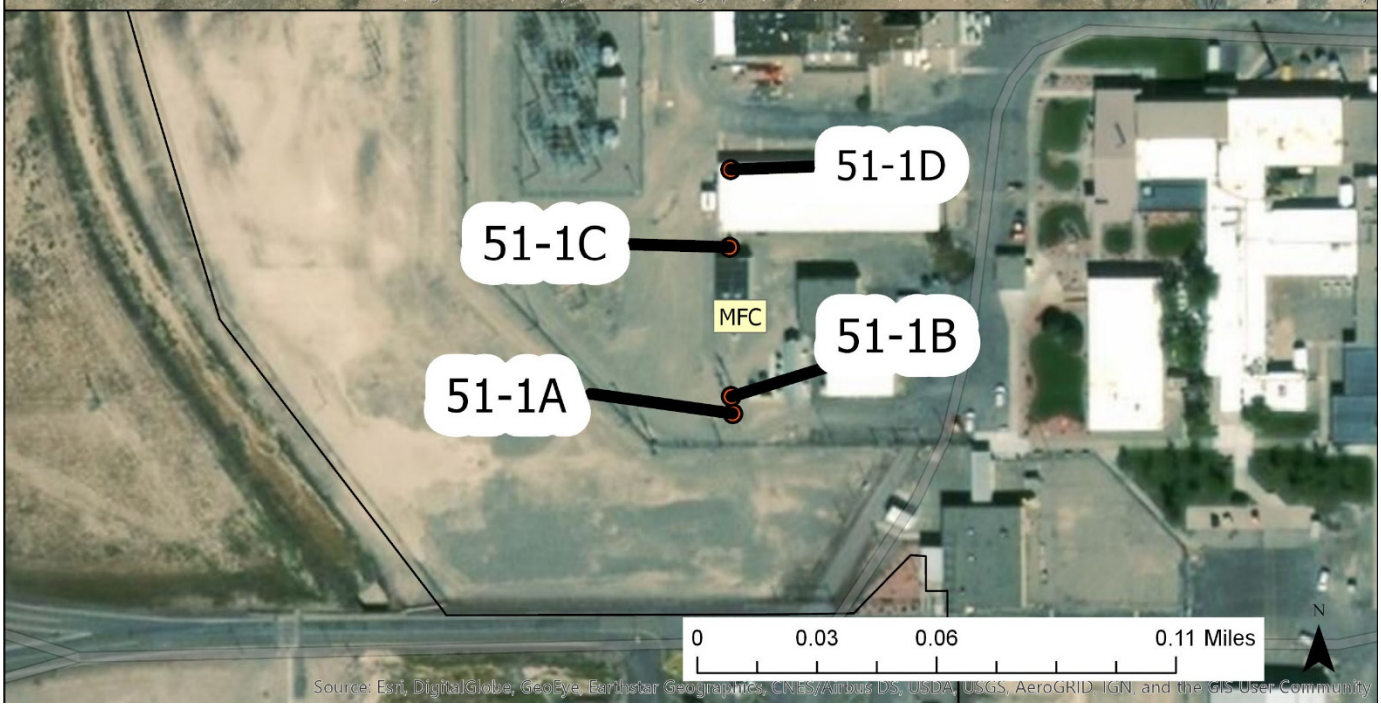

51-1D
51-1C
MFC
51-1B
51-1A
0
0.03
0.06
0.11 Miles
N
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Figure 6. RWMC Pole Replacements

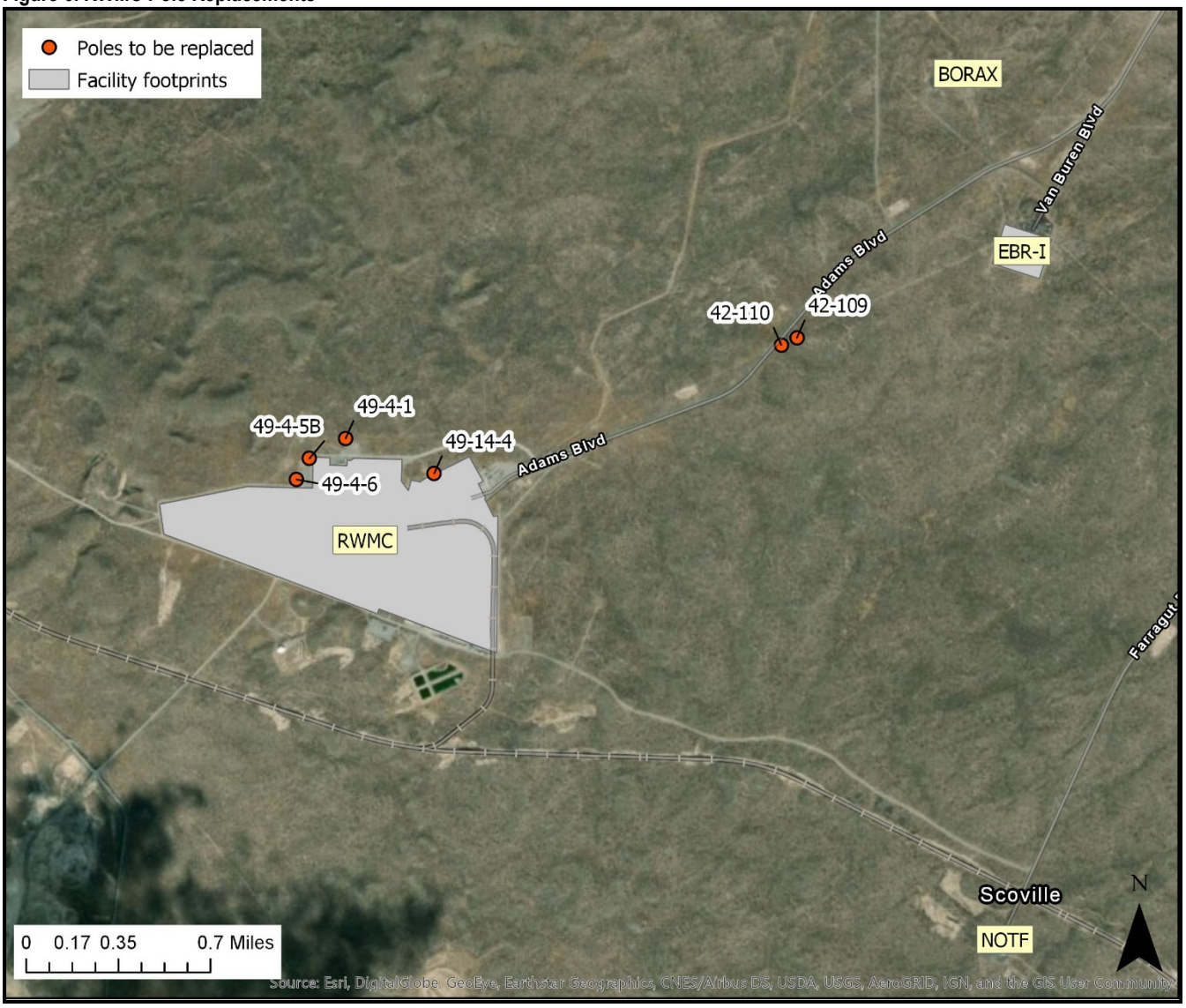


Figure 7. North of RWMC Pole Replacements

Figure 8. SMC Pole Replacements

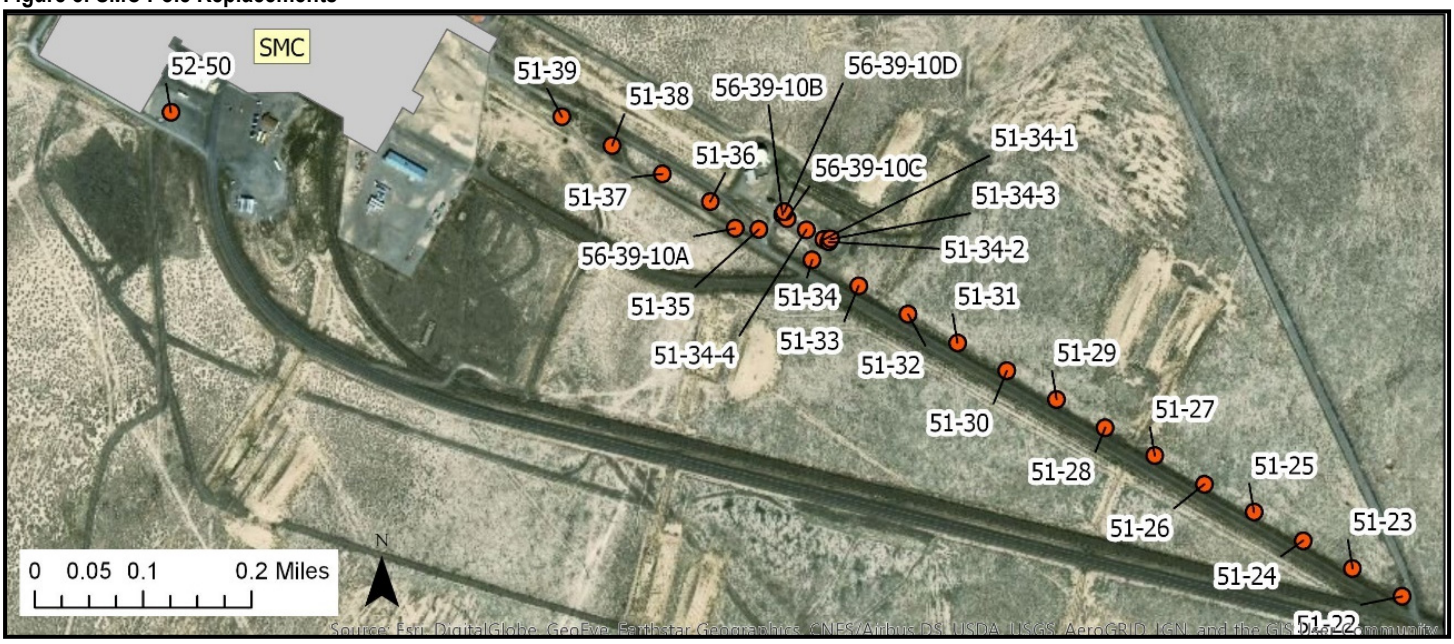


Figure 9. South of SMC Pole Replacements

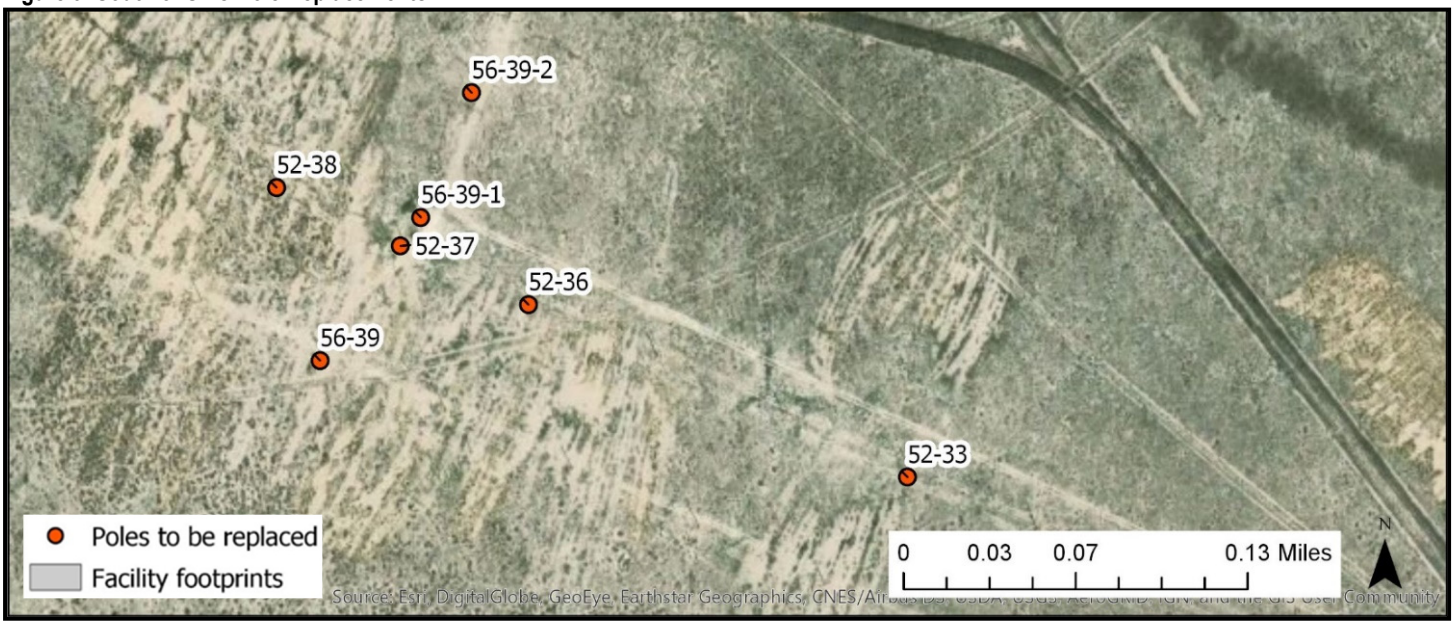


Figure 10. TSF Pole Replacements

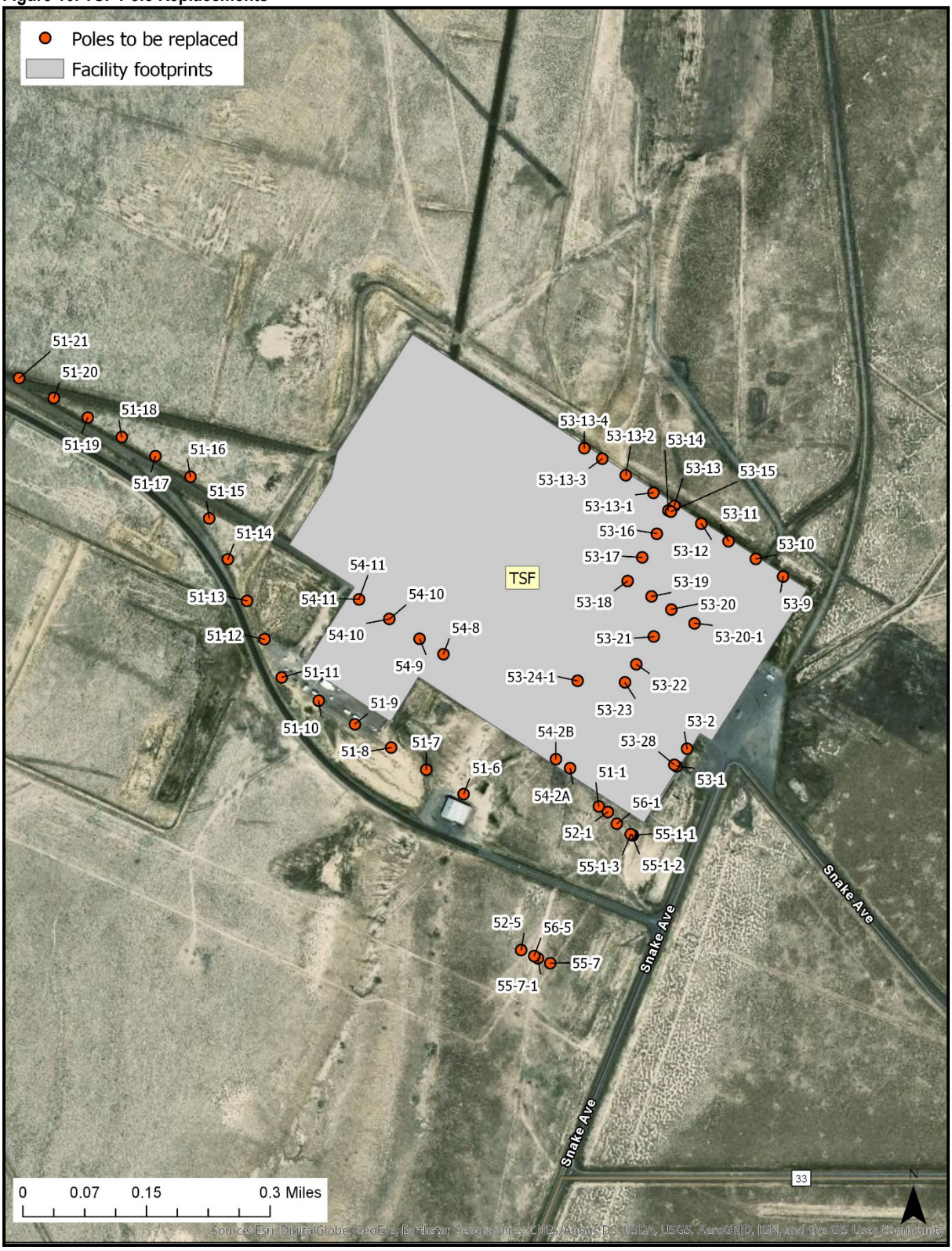


Figure 11 South of TSF Pole Replacements

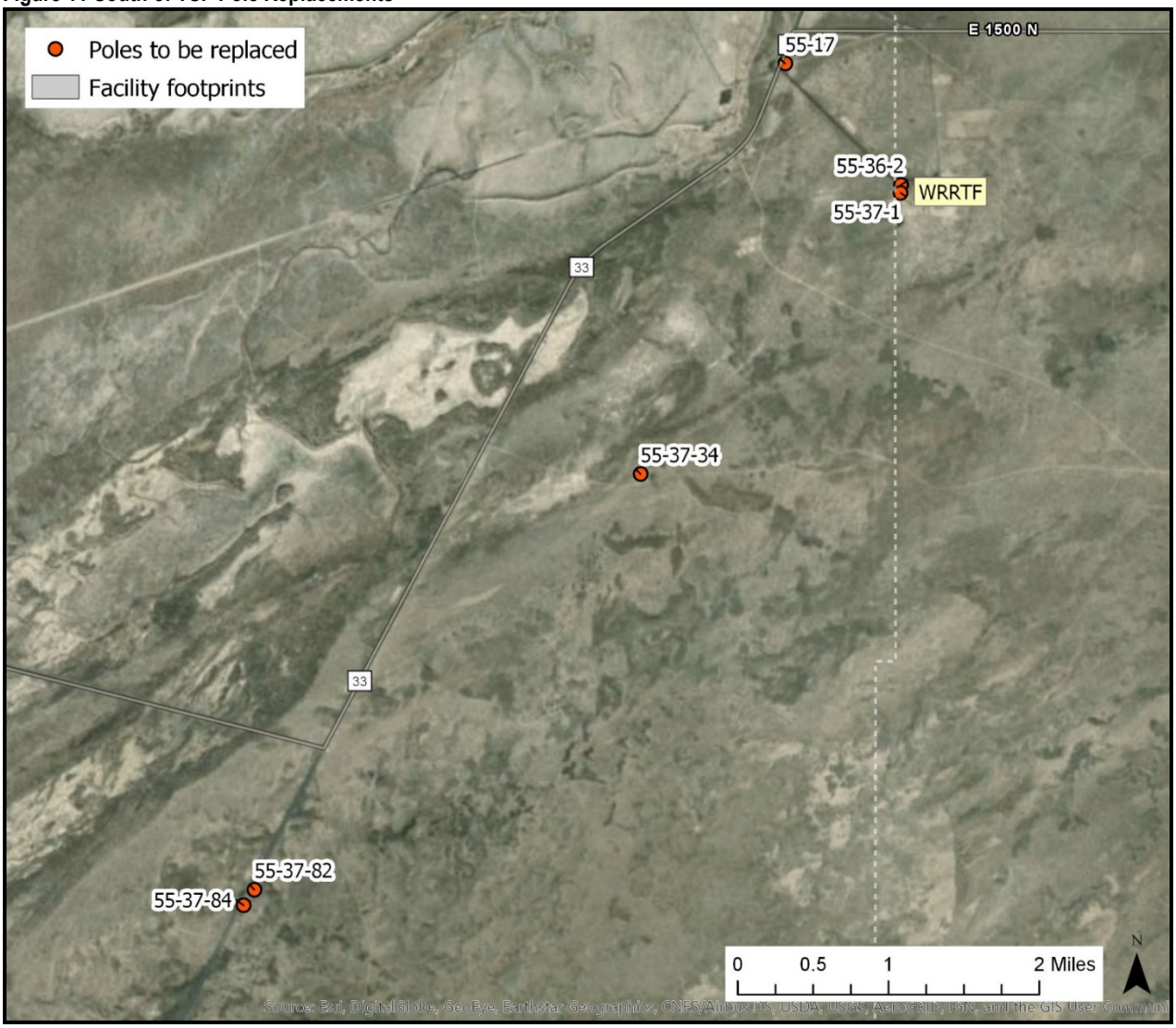
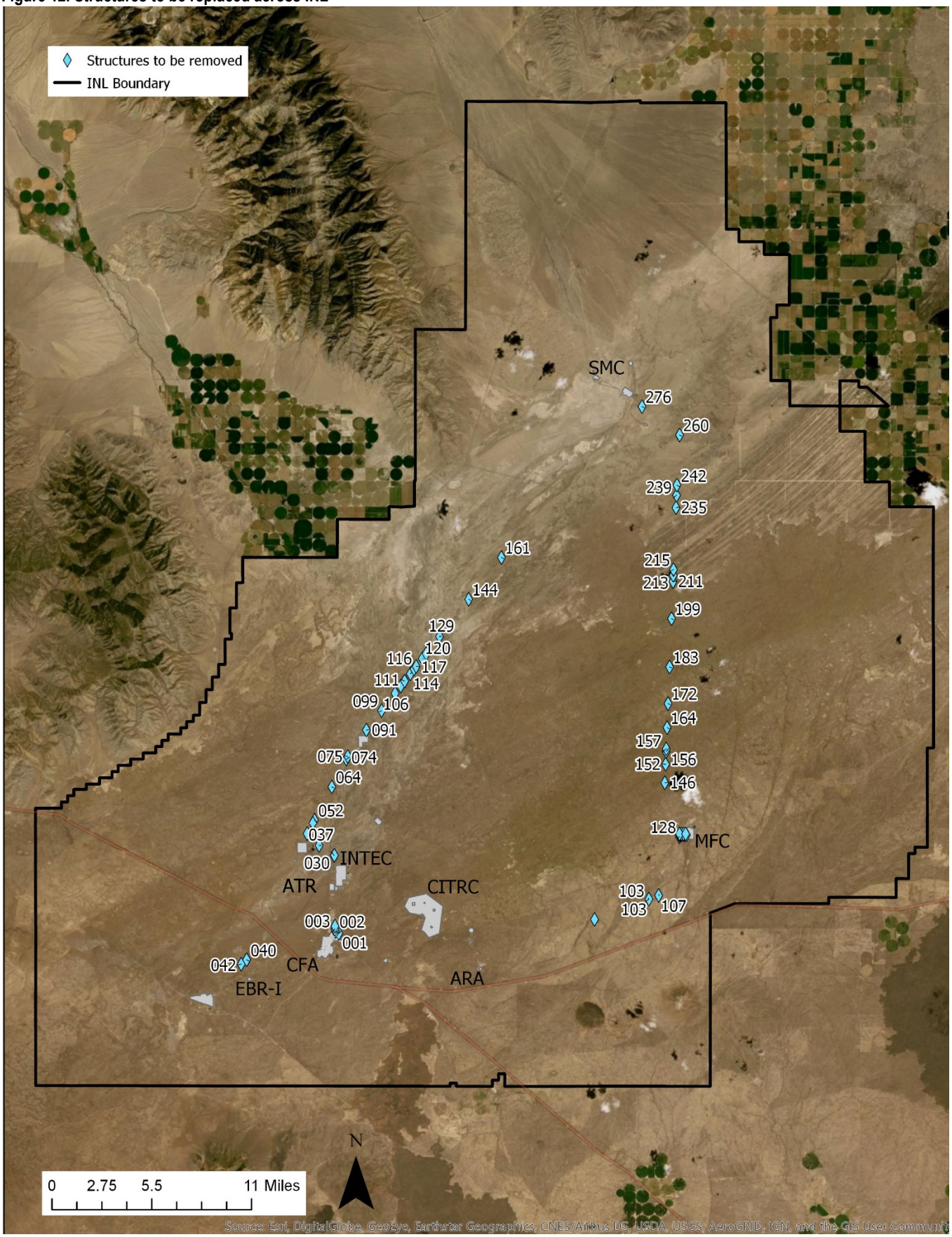


Figure 12. Structures to be replaced across INL



The proposed action also replaces static poles at the Naval Reactors Facility, Material Fuels Complex, Scoville, Test Area North, and Critical Infrastructure Test Range Complex Substations.

Much of the INL power distribution grid lies within CERCLA Institutional Control (IC) sites for unexploded ordnance (UXO) and some within other CERCLA IC areas (e.g., soil contamination and barriers). Power Management completed a site-wide Munitions Response Area Activity Notification (MRAAN-2018-006) in 2018 that includes a map of power poles, ordnance (ORD) sites, and other CERCLA IC (non-ORD) areas. MRANN-2018-006 was updated in early 2020 to MRAAN-2020-004 with figures and tables that contain instructions for power pole locations. Figure 1 shows the MRAAN-July 2019 base map, which was updated in July of 2019 to include last summer's pole additions.

Figure 13. MRAAN July 2019 Base Map

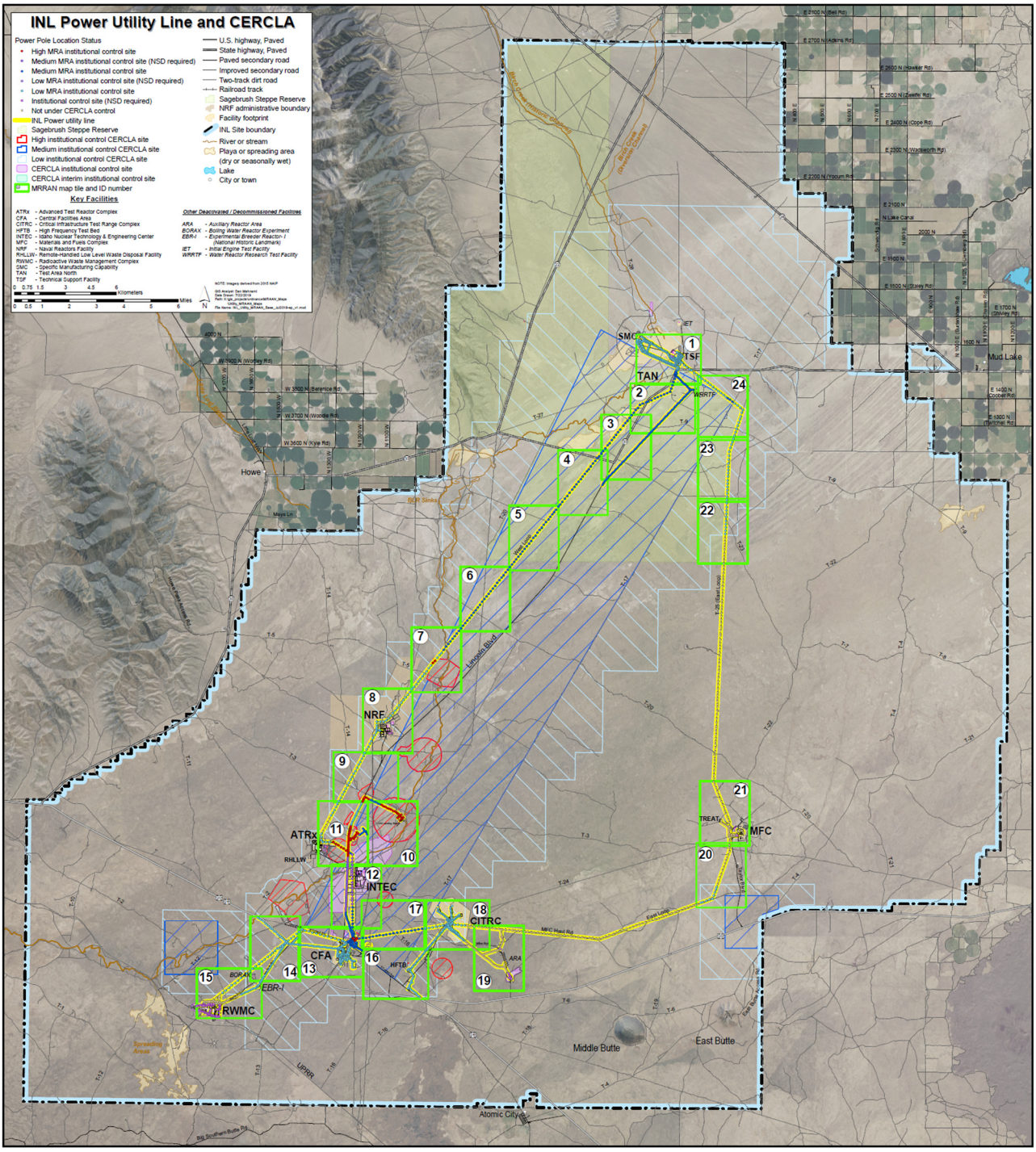
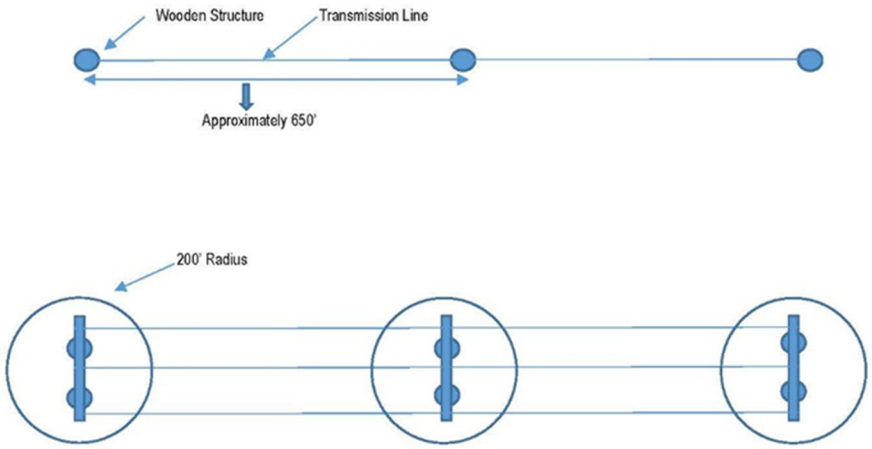


Figure 12 shows a representative section of a powerline and the area of impact (200' radius around poles/support structures, not including the transmission line) anticipated for routine maintenance activities for Power Management. Vegetation disturbance from vehicle traffic is expected in these areas, and in limited circumstances where direct-line travel from a road to a power pole or structure is required in order to complete routine maintenance activities.

Figure 2. Powerline maintenance area of impacts (not to scale)



Activities requiring use of gravel/borrow sources require project personnel to review EC INL-19-155, "Idaho National Laboratory Gravel/Borrow Pits (Overarching)" before removing or planning to remove material from any on-Site borrow source, and they must also complete form 450.AP01. Any expansion of gravel pit boundaries inside approved footprints requires completion of cultural and biological surveys.

Cultural resource reviews have not been conducted on numerous power line corridors. Any off-road vehicle travel along powerline corridors must be reviewed by the Cultural Resource Management Office (CRMO) and must be approved in writing prior to beginning activities authorized in this EC. In addition, all off-road travel must receive written clearance from the CRMO. Traveling on power line roads (T-roads, two track roads) is not considered off road.

Activities that would disturb vegetation or nesting birds from April 1 to October 1 must have nesting bird survey(s) and written approval to proceed.

Time-of-day restrictions (6:00 PM to 9:00 AM between March 15 and May 15) are in effect within 1 km (0.6 mi) of a sage-grouse lek.

Those conducting maintenance activities would use the instructions from Laboratory-wide Procedure (LWP)-6200 "Maintenance Integrated Work Control Process" and all applicable instructions in LWP-8000, "Environmental Instructions for Facilities, Processes, Materials and Equipment."

Activities that are not defined under this EC and may require preparation of project-specific ECs include:

- sagebrush disturbance outside of the 200' radius area of impact around poles and structures
- Vegetation disturbance outside of the 200' radius area of impact around poles and structures in the Sage Grouse Conservation Area
- Activities with the potential to impact cultural or historic resources, and
- Ground-disturbing activities near the CITRC area, including previously disturbed areas, which require the presence of an archaeologist at all times

SECTION C. Environmental Aspects or Potential Sources of Impact:

Air Emissions
The potential for air emissions exists through activities including but not limited to, operation of fuel burning equipment, cleaning and decontamination work, use of maintenance products, disturbing asbestos, and generating fugitive dust.

Discharging to Surface-, Storm-, or Ground Water
Project activities may occur in the INL Storm Water Corridor.

Disturbing Cultural or Biological Resources
Soil disturbing activities, off road vehicle use, and work in the vicinity of buildings constructed on the INL Site prior to1970 (e.g. EBR-1) have the potential to impact cultural resources.

Impacts to biological resources (e.g., vegetation, birds, nests, leks) have the potential to occur during project activities.

Generating and Managing Waste
Industrial (non-hazardous, non-radioactive) waste such as wood, metal, wire insulation, etc. will be generated. Asbestos waste may be generated if maintenance is required on asbestos containing equipment (e.g., transite conduit). Hazardous and PCB waste may be generated from chemical use, lead shielded cable, and activities involving pre-1982 paints, wire pulling compound, dielectric fluid, etc.

Releasing Contaminants
Although not anticipated, spills of maintenance products, PCBs, petroleum, etc. may occur.

Using, Reusing, and Conserving Natural Resources
Materials such as wood and metal generated by work activities would be reused and/or recycled as practicable.

SECTION D. Determine Recommended Level of Environmental Review, Identify Reference(s), and State Justification: Identify the applicable categorical exclusion from 10 Code of Federal Regulation (CFR) 1021, Appendix B, give the appropriate justification, and the approval date.

For Categorical Exclusions (CXs), the proposed action must not: (1) threaten a violation of applicable statutory, regulatory, or permit requirements for environmental, safety, and health, or similar requirements of Department of Energy (DOE) or Executive Orders; (2) require siting and construction or major expansion of waste storage, disposal, recovery, or treatment or facilities; (3) disturb hazardous substances, pollutants, contaminants, or Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)-excluded petroleum and natural gas products that pre-exist in the environment such that there would be uncontrolled or unpermitted releases; (4) have the potential to cause significant impacts on environmentally sensitive resources (see 10 CFR 1021). In addition, no extraordinary circumstances related to the proposal exist that would affect the significance of the action. In addition, the action is not "connected" to other action actions (40 CFR 1508.25(a)(1) and is not related to other actions with individually insignificant but cumulatively significant impacts (40 CFR 1608.27(b)(7)).

References: 10 CFR 1021, Appendix B, B1.3 "Routine maintenance," B4.6 "Additions and modifications to transmission facilities," and B4.10 "Removal of electric transmission facilities."

Justification: Activities are consistent with 10 CFR 1021, Appendix B1.3 "Routine maintenance activities and custodial services for buildings, structures, rights-of-way, infrastructures (including, but not limited to, pathways, roads, and railroads), vehicles and equipment, and localized vegetation … control, during which operations may be suspended and resumed, provided that the activities would be conducted in a manner in accordance with applicable requirements. … activities to preserve facility appearance, working conditions … (such as … painting …) … . Routine maintenance activities, corrective (that is, repair), preventive, and predictive, are required to maintain and preserve buildings, structures, infrastructures, and equipment in a condition suitable for a facility to be used for its designated purpose. Such maintenance may occur as a result of severe weather (such as hurricanes, floods, and tornados), wildfires, and other such events. Routine maintenance may result in replacement to the extent that replacement is in-kind and is not a substantial upgrade or improvement. In-kind replacement includes installation of new components to replace outmoded components, provided that the replacement does not result in a significant change in the expected useful life, design capacity, or function of the facility. Routine maintenance does not include replacement of a major component that significantly extends the originally intended useful life of a facility (for example, it does not include the replacement of a reactor vessel near the end of its useful life). Routine maintenance activities include, but are not limited to:

a) Repair or replacement (like for like) of facility equipment …; …

b) Plumbing, electrical utility, lighting, and telephone service repair or replacement; …

c) Repair and maintenance of transmission facilities, such as replacement of conductors of the same nominal voltage, poles, circuit breakers, transformers, capacitors, crossarms, insulators, and downed powerlines, in accordance, where appropriate, with 40 CFR part 761 (Polychlorinated Biphenyls Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions) or its successor;

d) Routine testing and calibration of facility components, subsystems, or portable equipment (such as … transformers, capacitors …);

e) Routine decontamination of the surfaces of equipment … (by such activities as wiping with rags …), and removal of contaminated intact equipment and other material … ."

B4.6 "Additions or modifications to electric power transmission facilities within a previously disturbed or developed facility area. Covered activities include, but are not limited to, switchyard rock grounding upgrades, secondary containment projects, paving projects, seismic upgrading, tower modifications, load shaping projects (such as the installation and use of flywheels and battery arrays), changing insulators, and replacement of poles, circuit breakers, conductors, transformers, and crossarms."

B4.10 "Deactivation, dismantling, and removal of electric transmission facilities (including, but not limited to, electric powerlines, substations, and switching stations) and abandonment and restoration of rights-of-way (including, but not limited to, associated access roads)."

Is the project funded by the American Recovery and Reinvestment Act of 2009 (Recovery Act) ☐ Yes ☒ No

Approved by Jason Sturm, DOE-ID NEPA Compliance Officer on: 4/23/20