Western Area
Power Administration

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List of Acronyms

°F	degrees Fahrenheit
AC	Alternating Current
ACHP	Advisory Council on Historic Preservation
AF	Acre-feet
AJD	Approved Jurisdictional Determination
APE	Area of Potential Effects
APLIC	Avian Power Line Interaction Committee
BGEPA	Bald and Golden Eagle Protection Act
BLM	Bureau of Land Management
BMPs	Best Management Practices
CAA	Clean Air Act
CDA	Colorado Department of Agriculture
CDPHE	Colorado Department of Public Health and Environment
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CPW	Colorado Parks and Wildlife
CRS	Colorado Revised Statutes
dBA	A-weighted decibels
DC	Direct Current
Deriva	Deriva Energy
DOE	U.S. Department of Energy
EA	Environmental Assessment
EJ	Environmental Justice
EO	Executive Order
EPA	Environmental Protection Agency
ESA	Endangered Species Act
FE	Federally Listed as Endangered
FEMA	Federal Emergency Management Agency
FT	Federally Listed as Threatened
Gen-tie	Generation-tie
GHG	Greenhouse Gas
IPaC	Information for Planning and Consultation
kV	Kilovolt
MBTA	Migratory Bird Treaty Act
MW	Megawatt
NAGPRA	Native American Graves Protection and Repatriation Act
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NPDES	National Pollutant Discharge Elimination System
NPS	National Park Service
NREL	National Renewable Energy Laboratory
NRHP	National Register of Historic Places
O&M	Operations and Maintenance
OAHP	Office of Archaeology and Historic Preservation
OATT	Open Access Transmission Service Tariff
OSHA	Occupational Health and Safety

PFYC	Potential Fossil Yield Classification
PMJM	Preble's Meadow Jumping Mouse
Project	Hoyt Solar Project
PV	Photovoltaic
RES	Renewable Energy Standard
SC	State Species of Special Concern
SCADA	Supervisory Control and Data Acquisition System
SHPO	State Historic Preservation Officer
SPCC	Spill Prevention, Control, and Countermeasure
SPWRAP	South Platte Water Related Activities Program
SQRU	Scenic Quality Rating Units
SRHP	State Register of Historic Places
ST	State-listed as Threatened
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
WAPA	Western Area Power Administration
WOTUS	Waters of the U.S.
WRCC	Western Regional Climate Center

Executive Summary

Project Location

The Hoyt Solar Project (Project) is located on approximately 750 acres of privately owned land in Morgan County, Colorado. The Project area is situated adjacent to the Hoyt Substation, which is owned and operated by the Western Area Power Administration (WAPA).

Project Participants

WAPA, a federal power marketing agency within the U.S. Department of Energy (DOE), is the lead federal agency for the Project responsible for leading the National Environmental Policy Act (NEPA) review. Deriva Energy (Deriva) is a private solar development company and the Project proponent.

Purpose and Need

WAPA's purpose and need is to consider and respond to an interconnection request from Deriva in accordance with its Open Access Transmission Service Tariff (OATT) and the Federal Power Act. The OATT is submitted to and accepted by the Federal Energy Regulatory Commission.

The purpose of the Project is to construct, operate, and maintain a nameplate capacity 80-megawatt (MW) photovoltaic solar facility to provide clean, cost effective, renewable energy. The need for the Project was established by multiple factors including local, state, and federal statues and directives including Colorado's renewable energy standard (RES) statute (Section 40-2-124, C.R.S.). The state of Colorado passed the RES in 2004, which requires electricity providers to obtain a minimum percentage of their power from renewable energy sources. The Project would aid in meeting the stated requirements of the RES for the state of Colorado.

Summary of Environmental Consequences

Table E-1 provides a summary of environmental consequences to resources considered in this Environmental Assessment (EA) under the Proposed Action and No Action alternatives.

Table E-1. Summary of Environmental Consequences

Resource	Impacts under Proposed Action	Impacts under No Action
Land Use	The Project would result in a land use change on 750 acres, from agricultural to industrial land use. The Project would not indirectly impact the zoned land use in the vicinity, nor would it affect land use in Morgan County overall.	The land could continue to be used for agricultural purposes and the zoning would not change, unless the landowner chose to use the property for other purposes as allowed by the Morgan County Zoning Regulations.

Resource	Impacts under Proposed Action	Impacts under No Action
Air Quality and Climate Change	Construction-phase impacts on air quality (fugitive dust and tailpipe emissions) would be minimal and temporary. Beneficial long-term impacts to air quality would occur through the implementation of the proposed Project and the corresponding reduction in greenhouse gas emissions compared to a traditional fossil fuel power plant.	Existing emissions from farming activities in the Project area would continue. Higher greenhouse gas emissions associated with a traditional fossil fuel power plant compared to the solar plant would occur if Deriva did not construct the Project.
Soils and Geology	Impacts to soils during construction would include surface compaction and minor erosion. Long-term impacts to soils would occur within the Project infrastructure footprint of about 472 acres. Approximately 364 acres of farmland of statewide importance would be impacted.	Soils would continue to be subject to minor disturbance as part of ongoing no-till farming activities.
Water Resources	The Project would avoid direct impacts to surface waters and wetlands. Temporary work to bury collector lines would occur within a floodplain mapped along an unnamed tributary of Antelope Creek. Minor runoff could occur as a result of construction, particularly during heavy precipitation. Water use both during construction (for dust suppression) and operations (panel washing) would be minimal, and water would be acquired from a permitted source.	Current impacts to water resources would continue. The landowner would presumably continue to use the existing wells in the Project area for agricultural and domestic purposes.
Vegetation	About 472 acres would be disked and rolled to accommodate the installation of solar panels. Since the area is currently used as cropland, the Project would not impact native vegetation communities. Minor indirect impacts from the introduction and spread of weeds are also anticipated.	The Project area would continue to be farmed and planted annually with winter wheat or other crops at the discretion of the landowner.
Wildlife Resources	Impacts to wildlife include loss of cropland habitat, displacement and disturbance, and potential for direct mortality. Overall impacts on wildlife are anticipated to be negligible to minor, given that the site lacks high quality wildlife habitat.	The site would continue to function as low-quality cropland wildlife habitat and remain available for use by small, medium, and large wildlife.

Resource	Impacts under Proposed Action	Impacts under No Action
Special Status Species	The Project would have no impact on federally listed species. The Project area lacks high-quality habitat for any special status species. Minor to moderate impacts from displacement or mortality could occur to black-tailed prairie dogs, burrowing owls, and/or mountain plovers.	Impacts to special status species associated with agricultural use of the property would continue, including potential inadvertent destruction of nests during plowing and harvesting activities and prairie dog control undertaken by the landowner (if any).
Cultural Resources	Impacts to previously unidentified cultural resources are possible, but the proposed undertaking has been determined to have no effect on historic properties.	Potential impacts to cultural resources resulting from current land uses would continue.
Paleontological Resources	There is low potential that paleontological resources could be inadvertently destroyed by construction activities.	Existing agricultural activities would likely continue in the Project area and have low potential to impact paleontological resources.
Visual Resources	The proposed solar field would have a minor-to-moderate impact on views and visual resources for local residents and passenger traffic using county roads near the Project area.	The existing visual character of the landscape as an agricultural field would persist.
Transportation	Construction would temporarily increase traffic on county roads (up to 125 passenger vehicle and 11 haul truck round trips per day). Up to 10 round trips per day are anticipated during operation and maintenance (O&M), with fewer trips on most days. Overall impacts would be minimal during construction and negligible during O&M.	Traffic and maintenance on local roads would continue in accordance with existing trends.
Public Health and Safety	Impacts to public health and safety, including construction related injuries, fire, “heat island” effect of the solar panels, noise, and hazardous materials, are anticipated to be negligible to minor.	No impacts to public health and safety are anticipated.
Socioeconomics	The Proposed Action would have a minor net economic benefit to the community through local spending and tax revenue. There would likely be minor property value impacts to property owners within 1 mile of the Project area.	The local community would not benefit from the tax revenues generated over the life of the Project, nor would there be local construction-related spending and jobs. Property values would continue to follow existing trends.

1. Introduction

This Environmental Assessment (EA) is being prepared for the Western Area Power Administration (WAPA), pursuant to the National Environmental Policy Act (NEPA), to assess the environmental impacts of a proposed interconnection request from Deriva Energy (Deriva) for the Hoyt Solar Project (Project). The Project, located in southwestern Morgan County, Colorado 12.5 miles south of Wiggins and just northwest of Hoyt, is a proposed 80-megawatt (MW) utility-scale photovoltaic (PV) generation solar facility to be built by, owned, and operated by Deriva (Figure 1-1). The Project would be located on 750 acres of leased land and would consist of arrays of solar panels spanning a total of 472 acres, an onsite substation, inverters, access roads, perimeter fencing, and a supervisory control and data acquisition (SCADA) system. The Project would connect to WAPA's Hoyt Substation via a new 300-foot-long overhead 115-kilovolt (kV) generation-tie (gen-tie) transmission line located within the Hoyt Solar Project area.

1.1 Background

WAPA is a federal power-marketing agency within the U.S. Department of Energy (DOE) that operates and maintains electric transmission lines and associated facilities in accordance with the Federal Power Act, Section 211, and the Open Access Transmission Service Tariff (OATT). Under the OATT, WAPA has responsibilities and approval authority to consider requests for interconnection. When considering interconnection requests, WAPA must ensure system reliability and service to existing customers and confirm they will not be adversely affected by new interconnections. WAPA's decision to authorize an interconnection is a major federal action subject to NEPA. This EA has been prepared in accordance with 40 CFR Parts 1500-1508 (May 20, 2022), and the DOE 57 FR 15144 Part 1021 Subpart A to Subpart D and applicable appendices dated April 24, 1992, or as updated through 2020, respectively.

In compliance with the OATT, WAPA conducted a System Impact Study in January 2021 to assess the capability of the transmission system to support the proposed Hoyt Solar interconnection. The study concluded that there were no power flow, transient stability, or short circuit duty violations or adverse utility impacts resulting from the proposed interconnection. Further, the System Impact Study concluded that there would be no impact on the Bulk Electric System reliability, and no system upgrades are necessary. WAPA also conducted a Facilities Study in November 2023 that verified the results of the System Impact Study, and determined that the Project would require the following facilities:

- Addition of new 115-kV bay at Hoyt Substation, including a 115-kV power circuit breaker, switches, coupling capacitor voltage transformers, current transformers, take off structure, bus upgrades, and associated equipment.
- Associated metering equipment.
- Protection and communication equipment.

These facilities are required to maintain protection as well as system reliability and operational flexibility for WAPA's Hoyt Substation. To comply with NEPA regulations, WAPA must evaluate the environmental impacts of the proposed Project through consideration of all potentially viable alternatives that achieve the stated purpose and need.

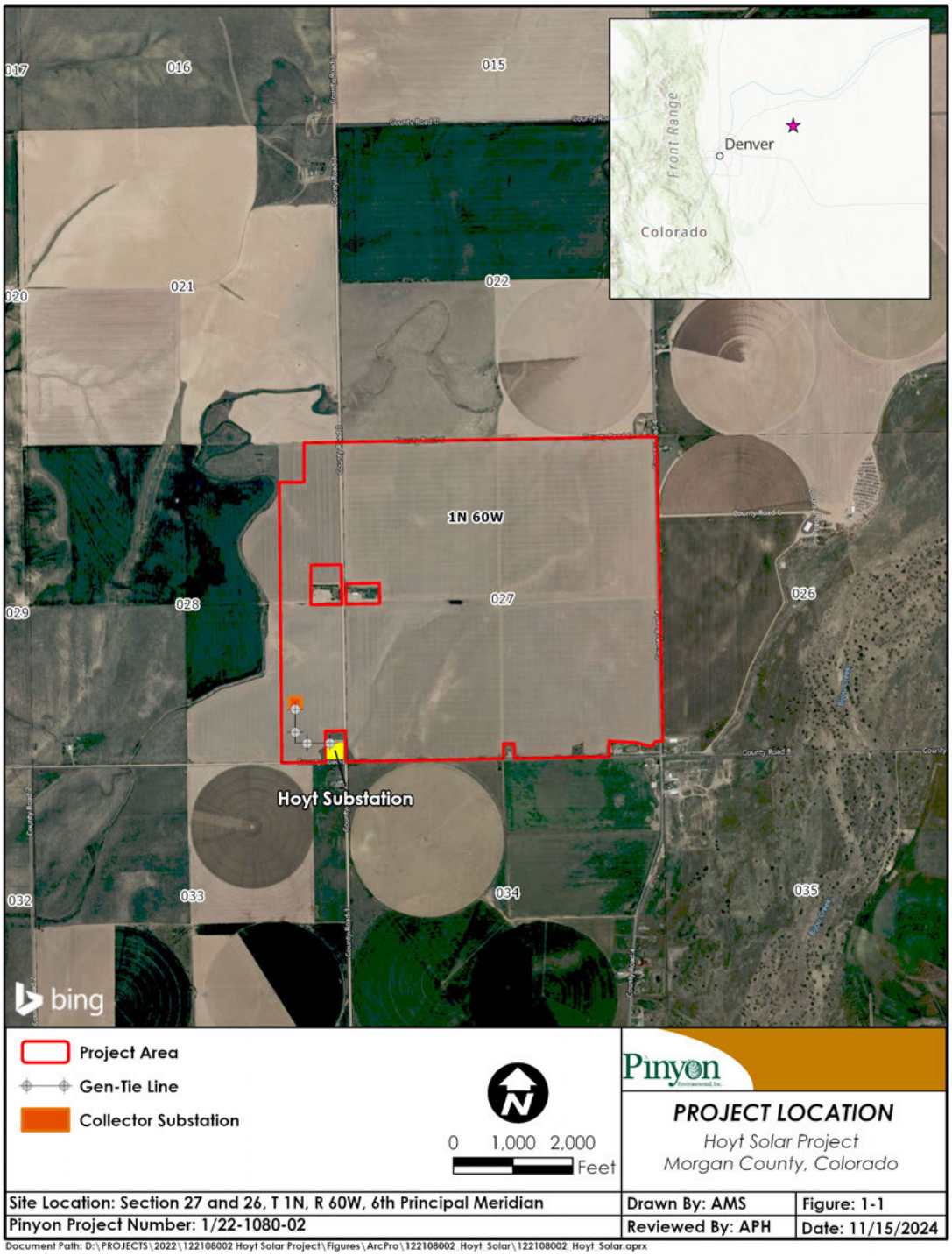

Figure 1-1. Project Location.

1.2 Purpose and Need

1.2.1 WAPA's Purpose and Need

WAPA needs to consider and respond to Deriva's interconnection request in accordance with its OATT and the Federal Power Act. Under the OATT, WAPA offers capacity on its transmission system to deliver electricity when capacity is available. The OATT also contains terms for processing requests for the interconnection of generation facilities to WAPA's transmission system. In reviewing interconnection requests, WAPA must ensure that existing reliability and services are not degraded. WAPA's OATT provides for transmission and system studies to ensure that system reliability and service to existing customers is not adversely affected by new interconnections. These studies also identify system upgrades or additions necessary to accommodate the proposed project and address whether the upgrades or additions are within the project scope. Lastly, under the OATT, WAPA offers interconnection to all eligible customers on a first-come, first-served basis, with a final decision on whether or not to make this offer subject to a NEPA review.

1.2.2 Hoyt Solar Project Purpose and Need

The purpose of the Project is to construct, operate, and maintain an 80-MW PV solar facility to provide clean, cost-effective, renewable energy to the electrical grid. Development of the Project was driven by several factors, including:

- Colorado's renewable energy standard (RES) statute (Section 40-2-124, C.R.S.) required 30% of retail energy sales to investor-owned utilities be derived from renewable generation starting in the year 2020 and thereafter (20% for large electrical cooperatives and 10% for large municipal utilities and small cooperatives). In 2019, Colorado enacted legislation requiring utilities serving 500,000 or more customers to supply 100% of retail sales with clean energy sources by 2050 so long as meeting such requirements is technically and economically feasible and in the public interest.

- Besides the RES, Colorado has other statutory and policy directives aimed at reducing greenhouse gas emissions. These include the Colorado *Climate Action Plan*, the Polis Administration's *Roadmap to 100% Renewable Energy by 2040 and Bold Climate Action*, and the *Colorado Greenhouse Gas Pollution Reduction Roadmap*. House Bill 19-1261, passed in 2019, outlines greenhouse gas emissions reduction goals of 26% by 2025 and 50% by 2030.

- Many individual utilities and cooperatives have established their own goals for renewable generation, in accordance with the above policies and customer demand.

- The cost of solar continues to decline relative to other energy sources, making it more competitive with other sources of new generation. This has led to utilities procuring solar regardless of mandates and goals to do so, simply because it costs less for ratepayers.

1.3 Public Involvement, Consultation, and Coordination

1.3.1 Public Scoping Open House

To solicit comments regarding the proposed Project, WAPA and Deriva conducted an open house format public scoping meeting on September 22, 2022, at the Hoyt Community Center from 5:00 to 7:00 P.M. A newspaper announcement with scoping meeting information and details regarding methods for providing comments was published in the Fort Morgan Times newspaper on September 14, 2022.

The open house was conducted in an informal format that allowed interested parties to view maps of the proposed Project and ask questions of Project representatives, which included staff from Deriva, WAPA, and Pinyon Environmental, Inc. (Pinyon; WAPA's third-party NEPA contractor). There were approximately 20 attendees at the open house. The participants were provided with a comment form, which could be turned in that evening or mailed to WAPA's NEPA Coordinator. The public comment period extended through October 25, 2022.

1.3.2 Public Scoping Letter

WAPA sent a scoping notification letter on September 9, 2022, to 19 property owners within a 0.5-mile radius of the Project, one local resource agency (the City of Fort Morgan Historic Preservation Board), and five tribes. Tribes that were contacted included:

- Apache Tribe of Oklahoma
- Northern Arapaho Tribe of the Wind River Reservation
- Cheyenne and Arapaho Tribes
- Comanche Nation
- Northern Cheyenne Tribe of the Northern Cheyenne Indian Reservation

WAPA's scoping letter described the proposed Project and the federal decision to be made that prompted the need for a NEPA analysis. The letter provided the WAPA NEPA Coordinator's email address for submitting public comments. An enclosure was included with the locations of the Project area and other associated components of the proposed Project layered on an aerial map of the area.

In addition to WAPA's scoping letter, Deriva sent a letter to landowners within 0.5-mile of the Project area to introduce the proposed Project, provide some basic information about solar farms, provide a map of the Project area, and provide information on the public open house.

1.3.3 Scoping Comments

A total of six parties provided comments during the public scoping period. Three of these were e-mails, one was a comment form submitted during the public scoping meeting, and two were letters that were mailed to WAPA. Comments received are summarized in Appendix A. The following items represent the general areas of concern expressed in the comments received:

- Requests for a link for the draft EA sent directly to them
- Aesthetics of the solar facility
- Impacts to landowner's property values
- Disturbance of viewshed by solar facility
- Tree and shrub planting
- Wildlife and habitat concerns
- Noise impacts
- Heat impacts
- Water well level impacts from drilling new wells
- Request for additional scoping meeting with broader announcement

Two comments were received from the Northern Cheyenne Tribe of the Northern Cheyenne Indian Reservation. The Northern Cheyenne Tribe of the Northern Cheyenne Indian Reservation requested to be kept updated and ensure the draft EA was provided to them. The Tribal Historic Preservation Office of the Northern Cheyenne Tribe of the Northern Cheyenne Indian Reservation requested to be a consulting party for the EA and requested

copies of Class I file search information and the completed Class III Survey Report. Class I file search information was provided to the Northern Cheyenne Tribe of the Northern Cheyenne Indian Reservation on November 15, 2022.

For those comments addressed in the EA, the comment matrix in Appendix A indicates the EA section where each comment is addressed. For comments that are not addressed in the EA, a response is supplied adjacent to the comment in the matrix. Comments not addressed were those that were outside the scope of the analysis.

1.3.4 Draft EA Public Comment Period

The draft EA was released for public review and comment on July 31, 2024, on WAPA's website (https://www.wapa.gov/about-wapa/regions/rm/rm-environment/doe-ea-2187-hoyt-solar-80-mw-solar-morgan-county-co/). The public comment period for the draft EA concluded on September 7, 2024, 38 days after the document was posted to WAPA's website. On July 30, 2024, prior to the start of the public comment period, a notification letter regarding the availability of the draft EA for review and public comment was mailed to all landowners within a 0.5-mile radius of the Project area. The letter was also mailed to the five tribes that were notified during the public scoping period. Additionally, a notice of availability for the draft EA and a request for public input was published in the Fort Morgan Times, which ran from August 8 through September 5, 2024.

In total, WAPA received 3 comment letters or e-mails from the public regarding the draft EA during the public comment period. Comments received were related to the following topics:

- Visual resources impacts
- Impacts on nearby property values
- Groundwater impacts
- Impacts on birds
- Notification process
- Use of energy generated by the project
- Noise impacts
- General support of the project

WAPA received two responses from tribes, one from the Northern Arapaho Tribe of the Wind River Reservation and one from the Comanche Nation. The Northern Arapaho Tribe of the Wind River Reservation requested to be contacted and provided with a report if any traditional cultural properties, rock features, or human remains are found during construction. The Comanche Nation confirmed that no properties were identified within the project area based on Comanche Nation site files.

The comments received during the public comment period for the draft EA as well as the responses to these comments from WAPA are included in Appendix B (Draft Environmental Assessment Public Comments and WAPA Responses).

2. Proposed Action and Alternatives

2.1 Alternatives Considered but Eliminated from Further Study

During internal scoping, Deriva discussed and considered many alternatives, including alternate sites for solar projects. Alternate sites were eliminated from further study due to greater distance from an interconnection point – constructing a longer gen-tie line would have greater environmental impacts compared to constructing a solar facility immediately adjacent to the point of interconnection.

2.2 Proposed Action

2.2.1 Overview

Under the Proposed Action, Deriva would construct an 80-MW PV solar facility located on 750 acres of leased private land located 12.5 miles south of Wiggins and just northwest of Hoyt in Morgan County, Colorado. It would include arrays of PV solar panels, an on-site Project substation, inverters, access roads, perimeter fencing, and a SCADA system. It would also include a new 300-foot-long 115-kV overhead gen-tie transmission line to interconnect with the WAPA Hoyt Substation. Once connected to the grid via the Hoyt Substation, the electricity generated by the Project would travel through the electrical transmission and distribution system to homes, apartments, businesses, and factories – wherever the demand is. On an annual basis, an 80-MW solar facility in this location would be expected to produce enough electricity to power approximately 15,000 homes (NREL, 2024).

Deriva selected the site for its proximity to the WAPA Hoyt Substation (eliminating the need for a new lengthy overhead transmission line), good solar energy resources, proximity to existing roads allowing access for construction and operations, technical construction feasibility (e.g., flat topography), and sufficiency of acreage for constructing a commercial-scale solar facility. While the overall Project area is approximately 750 acres, Deriva determined that the buildable area for the solar facility is limited to 472 acres within that larger Project area, due to setbacks for existing infrastructure and sensitive resources (Figure 2-1).

2.2.2 Proposed Facilities

The proposed Project would consist of PV panels mounted on steel racks with an anticipated single axis tracking system to allow the solar array to track the sun as the Earth rotates. The proposed Project infrastructure, including PV panels, tracking system, associated electric power collection system, collector substation, and gen-tie line, would be located within the boundaries of the Project area. A light-duty gravel-covered service road system would be located throughout the Project area for installation and operations and maintenance (O&M) activities. During construction, a laydown yard would be cleared of vegetation and used to temporarily store materials and equipment. Table 2-1 provides a summary of the anticipated surface disturbance – both temporary (mowing vegetation; driving and parking on the soil surface) and permanent (grading, earthwork, and installation of aboveground structures) – associated with the proposed Project. A preliminary conceptual layout for the facilities is shown in Figure 2-1.

Table 2-1. Anticipated Surface Disturbance

Project Component	Description	Temporary Disturbance (acres)	Permanent Disturbance (acres)
Solar field	PV panels would be organized into 25 electrical divisions or blocks. Each block would span approximately 15 acres.	0	472.0[1]
Underground collection system	Approximately 6 miles of underground cabling would be installed to connect the solar arrays to the Project collection substation.	3.5	N/A
Project collection substation with control building	A 6-acre site would be cleared of vegetation and graded for the project collection substation, which would include equipment to step up project voltage from 34.5 kV to 115 kV.	N/A	6.0
Gen-tie line	A 300-foot-long 115-kV gen-tie line would originate at the solar facility collection substation and terminate at WAPA's Hoyt Substation.	0.7	<1 acre for poles
Access roads	Project access roads extending between solar blocks would be 16 feet wide, totaling approximately 3 miles. There would also be a 0.2-mile, 20-foot-wide access road to the onsite Project substation.	N/A	7.0
Laydown yard	The laydown yard would be temporarily cleared of vegetation and used to store materials and equipment onsite during construction.	2.0	N/A

[1]Corresponds to the overall buildable area for the solar field and represents maximum possible disturbance.

2.2.2.1 Solar Field

Site preparation and construction would require the contractor to mow vegetation across the proposed solar field area. Disking and rolling may be performed across the entire buildable area to create a level surface for solar panel installation; however, mass grading and removal of topsoil would not be required.

The PV panels deployed for the Project would be monocrystalline silicon panels positioned about 5 feet above ground level at their midpoint. The PV panels would be mounted on steel racks with an anticipated single axis tracking system, allowing the solar array to track the sun at the Earth rotates. The height from the bottom edge of the panels to the ground would change throughout the day as the tracker rotates the modules to align with the angle of the sun. The tracking system would be attached to steel support structures with footings embedded below grade. Geotechnical studies would be performed, and foundation recommendations would be made based on existing subsurface soil conditions.

The PV panels would be organized into 25 electrical divisions or blocks. Each block would span approximately 15 acres, be capable of producing 3.2 MW, and require its own electrical collection equipment, including power inverters to convert power from direct current (DC) to alternating current (AC), switchgear, transformers to step up the low voltage produced in the panels to voltage more efficient for transmitting, and conductors. The size of

each block would depend on the type and size of the inverter and may be subject to change in response to other electrical design factors that may arise.

The layout shown in Figure 2-1 is a preliminary conceptual layout for the site. Detailed design layout and construction methods would be developed as part of the final solar facility engineering; however, some construction procedures are standard operating practices. The general course of action for construction of 3.2-MW blocks would include vegetation mowing and removal, disking and rolling, installation of the AC collection system, installation of most of the fencing, installation of posts, installation of the AC and DC collection system, installation of racking, installation of PV panels, and completion of the electrical collection systems. The contractor would follow this series of events until the maximum buildout for the site had been achieved. Temporary fencing would be installed around active disturbance areas during construction, including parking areas, laydown yards, solar field, and the solar facility collection substation. Permanent fencing would be installed once construction activities have been completed (Figure 2-1).

2.2.2.2 Electrical Collection System and Onsite Project Collection Substation

PV electric generation produces low voltage DC electricity. Inverters convert the electrical current to AC and finally the transformers step up the voltage to 34.5-kilovolt (kV) medium voltage within the solar field. This medium voltage current would be transferred to the collection substation through approximately 6 miles of underground electrical cabling that would be installed via trenching and then backfilling. The voltage would then need to be stepped up further to transmit the power more efficiently. An on-site solar facility collection substation would therefore be required to step up the voltage to 115-kV prior to conveying the electricity to WAPA's Hoyt Substation. The onsite Project collection substation would occupy approximately 6 acres and would include the following major system equipment:

- 34.5-kV medium voltage bus and associated switching apparatus
- 115-kV bus and switching apparatus
- 115- to 34.5-kV transformer
- Oil containment around transformer
- Medium voltage capacitors
- SF6 circuit breakers
- Metering equipment
- Protection equipment
- Battery backup for network equipment
- Steel support structures with foundations
- Grounding grid
- Control building
- Security and perimeter fence

The onsite Project collection substation equipment would be placed on concrete foundations and the entire yard would have a grounding grid installed below grade.

2.2.2.3 Generation Tie Line

The 115-kV gen-tie transmission line would originate at the onsite Project collection substation and terminate at WAPA's Hoyt Substation (Figure 2-1). The gen-tie line corridor would be 100 feet wide and 300 feet long, with the line consisting of steel poles between 55 and 80 feet tall (depending on final design). Installation of gen-tie line structures would proceed after clearing of the alignment of any excessive vegetation; however, no mass grading would be required for construction.

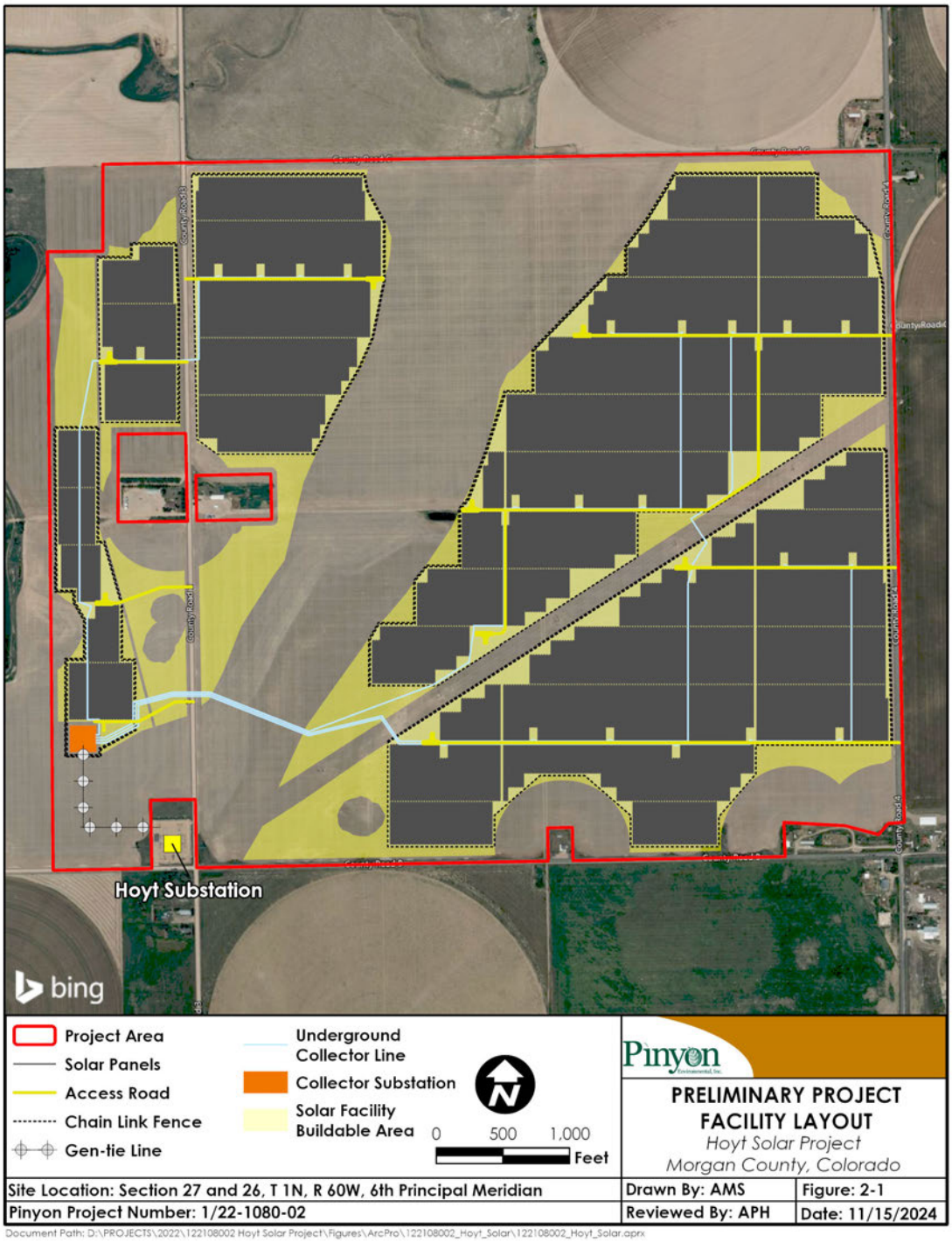

Figure 2-1. Preliminary Project Facility Layout.

2.2.2.4 Roads, Fencing, and Security

The proposed Project would need approximately 3 miles of 16-foot-wide access roads extending between solar blocks (Figure 2-1). There would also be a 0.2-mile, 20-foot-wide access road to the onsite Project collection substation. Site access roads would connect to County Roads 3 and 4, with the primary site access near the Project collector substation off County Road 3. Access roads would be covered with a 6-inch-thick layer of gravel, to minimize fugitive dust. Deriva would use these access roads for O&M activities such as equipment inspections, cleaning panels, lubricating tracking equipment, and security patrols.

Site security structures would include perimeter security fencing, controlled access points, signage, lighting, and cameras. Perimeter fencing would be 8-feet-high and consist of chain-link fence with barbed-wired security strands across the top. Controlled access gates would allow maintenance and security personnel access to all portions of the facilities. All permanent site lighting would be dark-sky compliant, down-shielded, and limited to the extent required for human health and safety, as well as site security.

2.2.3 Construction

Construction of the Project would last up to 12 months. Deriva would retain a third-party construction contractor to build the solar facility. Construction would occur in phases of approximately 3.2-MW blocks on approximately 15 acres. Peak construction activities may require up to 150 people on site including road construction workers, solar array installation personnel, agency or third-party construction monitors, and various other subcontractors and support personnel. On most days during the construction phase the average number of personnel on the site would be substantially less. Construction would use traditional earthmoving equipment such as bulldozers, motor graders, disking equipment, compacters, water trucks, cement trucks, and other typical heavy construction equipment. Deriva would utilize standard industry best management practices (BMPs) to stabilize soils and minimize dust during construction.

At the conclusion of construction, a mix of warm and cool season native or naturalized grasses and forbs would be seeded below the solar panels and in temporarily disturbed areas. The seed mix would be designed and selected for low water requirements and low growing heights.

2.2.3.1 Traffic

Peak daily construction worker traffic would be up to 125 passenger vehicle round trips per day for workers to commute to and from the site. The number of large haul trucks accessing the site would vary, with up to 11 per day during peak construction. Typical weight of these trucks would be around 15 tons. A water truck weighing up to 30 tons would be used for dust control as necessary.

2.2.3.2 Water Use

Approximately 5 acre-feet (AF) of water would be needed during construction for dust suppression activities. This water would be obtained offsite from a permitted source and hauled to the site with watering trucks.

2.2.4 Operation and Maintenance

The proposed Project would be designed with a minimum 40-year operational life expectancy. Operation of the solar facility would include periodic maintenance, overhaul, and replacement of facility equipment in accordance with manufacturer's recommended schedules. Routine cleaning of the PV panels with water would be required to maintain desired system efficiencies. As noted above, routine replacement of PV panels would be needed within the 40-year operational life of the facility. Spare panels would be stored onsite in a shipping container

and used to replace malfunctioning panels as needed. After all onsite spare panels have been utilized, any additional panel replacement would potentially incorporate the latest technology that is compatible with the operational systems in place at that time.

Maintenance activities at the solar facility would include periodically checking electrical performance parameters, maintenance of transformers and inverters, vegetation maintenance, dust control, PV panel cleaning, driveway and access road maintenance, and general inspections of the facility. Routine vegetation management may require seasonal mowing to reduce grass height to below panel edges. Application of herbicides may also be included as part of routine vegetation management, if specified by the Morgan County 1041 permit (see Section 3.3).

Deriva personnel or properly trained or certified contractors would conduct systematic inspections of the onsite Project collection substation and the gen-tie transmission line. Inspection intervals would be set by applicable federal, state, or local regulations and codes specific to electrical utility reliability standards. Inspections may also be based on industry standards that exceed the regulatory guidelines and standards. Infrastructure such as transformers, inverters, gen-tie line structures, and circuit breakers would be replaced based on manufacturers' recommendations or as inspections identify deficiencies in operational standards of the equipment.

2.2.4.1 Traffic

A maximum increase in traffic volume of up to 10 daily round trips is anticipated during O&M of the facility; most days, there would be far fewer daily trips. These would be maintenance personnel accessing the site in passenger vehicles.

2.2.4.2 Water Use

During operation and maintenance, long-term water use would be minimal, and include periodic washing of solar panels, potentially using one of the existing groundwater wells within the Project area. Permitting and water rights for this use would be coordinated with the State Engineer's Office.

2.2.5 Decommissioning

Deriva expects a full operational life of the solar facility and considers an operational life beyond original design expectations to be a realistic outcome. If individual PV panel output does not produce at threshold levels, PV panels would be replaced. Current industry warrantees range from 20 to 25 years, which coincides with the informal rule of thumb that a PV panel would lose less than 1% of its output per year. However, modern PV panels (produced after 2000) have been tested and appear to have less degradation over time. In any case, prior to the end of the 40-year operational life sequence, a percentage of the PV panels would be removed and replaced with the latest available compatible technology (after onsite spare panels are all used), which may extend the operational life of the Project. Furthermore, if the facility is viable and demand for the facility continues, Deriva may plan and execute facility upgrades to continue the operation of the solar facility beyond 40 years.

Eventually, the proposed Project would reach a point where it would not be a viable operation and would need to be decommissioned. During decommissioning, Project components would be removed from the site and recycled or disposed of at an appropriately licensed disposal facility. Above ground portions of the PV module supports would be removed. Below ground portions of the PV module supports would be removed to depths agreed to in landowner agreements or down to 24 inches. The demolition debris and removed equipment may be cut or dismantled into pieces that can be safely lifted or carried with the onsite equipment being used. The debris and equipment would be processed for transportation and delivery to an appropriately licensed disposal

facility or recycling center. Modules would be recycled in accordance with the solar module manufacturer's (or equivalent) recycling program.

The cables, inverters, and transformers would be dismantled. The concrete foundations would be broken up, removed, and recycled. If ground-screw foundations are used, they would be removed and recycled. The underground cable would be removed. Overhead conductors would be removed from the poles, and the poles and pole foundations would be removed. Aluminum from the conductors would be recycled or removed from the site to an appropriately licensed disposal facility.

Any holes, channels, or surface depressions created by the Project would be backfilled with clean soil similar to surrounding materials. Minor recontouring of the soil surface would be completed, if necessary, in coordination with the landowner. If the landowner requested, access roads would be ripped, scarified, and covered with topsoil, or they could be kept in place if the landowner so chooses. The land would be reseeded with a landowner-selected seed mix. The landowner would dictate post-solar-farm land use – it could be returned to agricultural cropland or used for another purpose at their discretion. Fencing would be left in place unless required to be removed according to landowner requests or county ordinances.

2.2.6 Hoyt Solar's Resource Protection Measures

Industry standard BMPs would be followed to minimize soil erosion and siltation of nearby waterways during surface disturbing activities at the solar facility. In addition, Deriva would enact dust control measures during all phases of construction and operation of the Project. Dust control measures would follow the guidelines prescribed by Morgan County and/or the State of Colorado. Topsoil would left intact to the maximum extent feasible. Where necessary to remove topsoil (e.g., for underground collector line trenching), the topsoil would be segregated, temporarily stockpiled, and redistributed back onsite prior to reseeding. Temporarily disturbed portions of the Project area would be seeded with a county and/or state-approved native seed mix. Revegetating the exposed soils would aid in dust and erosion control as well as minimize the spread of non-native plant species. Vegetative screening may be installed adjacent to non-site homes, along the outer perimeter of the site. Deriva would coordinate with adjacent property owners regarding placement of vegetative screening to minimize visual impacts to neighboring residents.

Using native plants to revegetate the site would also help to minimize impacts to ecological resources, including wildlife. Deriva follows industry standards for compliance with all applicable wildlife protection laws, including the Migratory Bird Treaty Act (MBTA). If construction commenced during the breeding season for migratory birds, nest surveys would be performed in potential nesting habitat to minimize the potential for incidental take of birds. The gen-tie line would be constructed to avian-friendly standards (i.e., Avian Power Line Interaction Committee [APLIC] suggested practices [APLIC, 2006]), to reduce the risk of wildlife electrocution.

Transformers (which contain mineral oil) and inverters (which may contain cooling fluid) have the potential to introduce petroleum products into the environment. To minimize this potential, Deriva would develop a Spill Prevention, Control, and Countermeasure (SPCC) plan in accordance with federal Oil Pollution Prevention regulations (40 Code of Federal Regulations [CFR] 112). Detailed design layout and construction methods of site drainage, retention, and containment would be identified in the SPCC. At a minimum, the spill containment volume would equal 100% of the oil volume plus a freeboard for rain water in a 25-year 24-hour event. The SPCC would be developed and finalized at the time of the final solar facility engineering. Finally, Deriva would follow all environmental-, natural resource-, or cultural resource-based requirements set forth as a condition of any construction or operational permit necessary to build, operate, or maintain the solar facility.

2.2.7 Other Decisions/Approvals Needed

In addition to WAPA's decision to approve Deriva's interconnection request, approvals from other governing bodies would be required before the solar facility could be constructed. Deriva would need to apply for and obtain a 1041 Permit from Morgan County in accordance with the Morgan County Zoning Regulations. Additional county permits would also be required, including roadway permits and building permits. A National Pollutant Discharge Elimination System (NPDES) general construction permit would be required through the Colorado Department of Public Health and Environment (CDPHE) to govern stormwater runoff and site stabilization during construction. CDPHE also requires an air permit for land development activities totaling at least 25 contiguous acres or lasting 6 months or more in duration. Additional permits and authorizations may be required at the local and state level, which would be identified as Project design progresses. Deriva would pursue all additional requisite permits and authorizations once the solar facility engineering and layout design are complete.

2.3 No Action Alternative

Under the No Action Alternative, WAPA would not execute an interconnection agreement with Deriva and the Project would not be constructed or interconnected to WAPA's transmission system. WAPA would continue to operate the WAPA Hoyt Substation; however, the construction activities associated with the Proposed Action would not occur. Deriva could continue to pursue the Project by applying for an interconnection with another transmission provider; however, in this scenario the Project would most likely be constructed elsewhere and the Hoyt Solar Project as currently designed would not occur.

3. Affected Environment and Environmental Impacts

3.1 Introduction

This chapter describes the affected environment and environmental impacts of the Proposed Action and No Action Alternative. The affected environment includes that area encompassing the environmental, sociological, economic, and cultural resources of interest that may be impacted by the Proposed Action or No Action Alternative. The affected environment is described for each resource based on primary and secondary data sources, and, for some resources, field observations. The affected environment serves as the baseline against which potential impacts to resources from the Proposed Action or No Action Alternative can be evaluated.

Environmental impacts are defined as modifications to the affected environment caused by the Proposed Action or the No Action Alternative. Impacts can be beneficial or adverse; direct or indirect; short-term (<2 years), long-term (2-40 years), or permanent (>40 years); or cumulative in nature. The impact analysis was conducted on either a quantitative or qualitative basis, depending on available data or the nature of the impact, and established the severity of impact in the context of the affected environment.

WAPA used an accumulative approach for the impact assessments, which assumed a greater intensity of impacts resulting from a greater change in conditions. Impact intensity in this analysis varied from negligible to minor and moderate impacts, as defined below:

- Negligible: Effects would be at the lowest levels of detection, barely measurable, with no perceptible consequences.
- Minor: Effects result in a detectable change, but the change would be slight.
- Moderate: Effects would result in a clearly detectable change, with measurable effects.

3.2 Resources Considered but Not Evaluated

In accordance with NEPA regulations, some resources were eliminated from evaluation because they were not present in or near the Project area and would not be affected by the Proposed Action or No Action Alternative. These resources include:

- Wild and Scenic Rivers – No wild and scenic rivers are located within or near the Project area. The only river with wild and scenic designation in Colorado is the Cache la Poudre River, over 70 miles to the northwest.
- State or National Parks, Forests, Conservation Areas, or Recreational Areas – No state or national parks, forests, conservation areas, or recreational areas are located within 5 miles of the Project area.
- Timber Resources – No forested land is located within 5 miles of the Project area.
- Minerals – No federal mineral rights are located within the Project area.
- Fisheries – There are no fish-bearing rivers or streams in the Project area.
- Recreation – There are no designated recreational facilities or opportunities within 4 miles of the Project area. There is state trust land 4 miles from the eastern edge of the Project area on the opposite side of Bijou Creek, which may provide recreational hunting opportunities. No impacts on recreation are anticipated due to the distance from the Project area.

- Rangeland – There is no livestock grazing within the Project area.

- Environmental Justice – Federal agencies are required to address disproportionate environmental impacts on minority and low-income populations (i.e., environmental justice). As such, the Project area was screened for the presence of minority and/or low-income communities using U.S. Census data organized at the Census tract level. The entire Project area is located in Morgan County, Colorado, in Census tract 08087000200. This Census tract is not an environmental justice community nor is it likely that language barriers would adversely and disproportionately affect the ability of residents to participate in the permitting process. The proportion of the population identified as a minority group within Census tract 08087000200 (25%) was lower than in Morgan County (43%) and Colorado (35%) more generally. Additionally, the proportion of the population within Census tract 08087000200 below the poverty line (6%) was also lower than in Morgan County (12%) and Colorado (10%) more generally (U.S. Census Bureau, 2024). Noting that most adverse environmental effects associated with solar facility construction (e.g., noise, dust, and air emissions) would be most acutely felt near the Project and diminish rapidly over the course of several hundred yards, and further noting that viewshed alternations (the only adverse impact likely to persist after construction and to be noticeable at a distance) are not expected to disproportionately impact low-income or minority communities, environmental justice was dismissed from detailed analysis.

3.3 Land Use

3.3.1 Affected Environment

The Farmland Protection Policy Act (FPPA) and its implementing regulations (7 CFR 658 et seq.) require that federal agencies identify and assess adverse effects of federal programs on the protection of farmland. Agencies are to consider proposed actions and alternatives to lessen any adverse effects on farmlands and, to the extent practicable, be compatible with state and local programs to protect farmland. According to the FFPA, protected farmland includes prime farmland soils, unique soils, or statewide or locally important soils. These terms are defined below (Soil Survey Staff, 2023a):

- **Prime Farmland:** Soils that are particularly well-suited for use as farmland as classified by the NRCS as prime farmland. It is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops. Prime farmland can economically produce sustained high yields of those crops when treated and managed according to acceptable farming practices.

- **Unique Farmland:** Land other than prime farmland that is used to produce specific high-value food and fiber crops. It can economically produce sustained yields of these specialized crops when treated and managed according to acceptable farming practices.

- **Farmland of Statewide Importance:** Land that does not meet criteria for prime or unique farmland, but which is considered to be farmland of statewide importance for the production of food, feed, fiber, forage, and oilseed crops, as identified by criteria determined by the Colorado State Experiment Station, the Colorado State Department of Agriculture, and the Colorado State Soil Conservation Board. Generally, these lands include areas of soils that nearly meet the requirements for prime farmland and that economically produce high yields of crops when treated and managed according to acceptable farming methods.

- **Farmland of Local Importance:** Land that has not been identified as prime farmland, unique farmland, or farmland of statewide importance, yet may have local significance based on recognition and designation by appropriate local agencies.

Land within the Project area is currently vacant and privately owned and is used for agricultural production (winter wheat crops). Approximately 364 acres are designated "farmland of statewide importance," compared with 270,120 acres of farmland of statewide importance in Morgan County overall (Soil Survey Staff, 2023b). Most of the land surrounding the Project area is used for agriculture, either crops or livestock grazing. The small community of Hoyt is located immediately to the southeast of the Project area, and there are several rural residences within 1 mile of the Project area boundary. An automotive repair and sales business is located approximately 0.6 mile to the east of the Project area. The Hoyt Cemetery is approximately 1 mile north of the Project area, and the Hoyt Community Center is adjacent to the southern Project area boundary.

Several existing high voltage transmission lines cross the Project area, including the Erie-Hoyt 230 kV line that parallels the north side of County Road B along the southern boundary of the Project area, running east-west; the Kiowa Creek-Hoyt 115 kV line that bisects the Project area and parallels the west side of County Road 300 running north-south; and the Henry Lake-Story 230 kV line and Hoyt-Beaver Creek 115 kV line that bisects the Project area running northeast-southwest, connecting into the existing WAPA Hoyt Substation.

The Morgan County Comprehensive Plan was adopted in 2008, which outlines goals to guide the County's development and growth. It divides the County into 11 planning areas, each with its own specific goals. The Project area is located within the Southwest Planning Area, which, according to the Comprehensive Plan, is one of the most active areas in the County (Morgan County, 2008). Residential development is occurring throughout the region, and irrigated farming is becoming more difficult with the depletion of groundwater. The Comprehensive Plan sets forth the following goals for the Southwest Planning Area:

- Encourage the development of community wastewater treatment facilities as more residential developments are completed in close proximity to other residential developments. This could be accomplished through taxing districts and/or possible grant monies.

- Encourage the preservation of agricultural production land to ensure continuation of this important industry.

The Morgan County Zoning Regulations implement the Comprehensive Plan by governing development on unincorporated lands within the County. The lands in the Project area, and within a 1-mile buffer, are in the Agricultural Production Zone (Zone A). According to the Zoning Regulations, this zone was established to "maintain and promote agriculture as an essential industry of Morgan County" (Morgan County, 2019). In 2022 the Morgan County Board of County Commissioners amended the Zoning Regulations to allow solar energy facilities spanning more than 20 acres to be permitted as a special use in Zone A (Morgan County, 2022). Furthermore, Morgan County's *Guidelines and Regulations for Areas and Activities of State Interest* (also called 1041 Regulations), require County review and permitting for major facilities of public utilities, which include power plants with a generating capacity of 50 MW or more (Morgan County, 2021).

3.3.2 Environmental Impacts: Proposed Action

3.3.2.1 Direct and Indirect Impacts

The WAPA Hoyt Substation was constructed in 1949 and in operation prior to the issuance of the Comprehensive Plan and Zoning Regulations. WAPA would not need to pursue any new zoning overlay or permit to expand its operations in the existing Hoyt Substation, assuming the upgrades take place within the existing footprint. The land in the Project area is zoned Agricultural Production Zone, which does not allow for development of solar

energy facilities except by permit. Additionally, the proposed Project constitutes a power plant with a generation capacity exceeding 50 MW; therefore, the Project would be subject to County land use review per the 1041 Regulations. Development of the Project area for a solar farm would preclude these parcels from agricultural use, which would have minor long-term effects on land use in the vicinity of the Project. The Project would result in a land use change on 750 acres, from agricultural to industrial land use, for at least 40 years. This change in land use would have a minor impact on overall regional land use, as there are thousands of acres of Zone A properties adjacent to and surrounding the Project area. Approximately 364 acres of farmland of statewide importance would be converted to industrial use, or 0.1 percent of the farmland of statewide importance in Morgan County. During construction, traffic could indirectly impact adjacent land uses (for instance, by hindering access or slowing the circulation of farm equipment to adjacent fields). Construction would occur during daylight hours; therefore, indirect impacts would be limited to the daytime.

O&M of the proposed solar facility would be a passive use and would not indirectly impact the zoned land use in the vicinity of the proposed Project, nor would it affect land use in Morgan County overall. During O&M, the Project would have limited traffic impacts on the surrounding area, with the increased traffic of up to 10 trips per day hardly noticeable against the background of regular agricultural use.

Decommissioning would entail the removal of aboveground equipment and below ground electrical connections from the Project area. This process would change the land use from industrial back to agricultural, as the Project area could again be used for agriculture if the landowner chooses to do so. Topsoil would be retained onsite throughout the 40-year project life, seeded, and maintained as grassland below the solar panels. Studies have found that 40 years of grassland establishment on prior cropland improves soil health and nutrients, which could be beneficial for post-project agricultural uses (De et. al, 2020). During the decommissioning process, additional traffic could indirectly affect farm operations on adjacent properties, similar to the construction phase. However, this effect would be short-term and minor.

3.3.2.2 Environmental Commitments

Deriva would apply for a 1041 permit and comply with Morgan County's Zoning Regulations. The County would review the permit application for compliance with land use regulations and policies. Deriva would comply with any applicable permit limitations and conditions specified by the County.

3.3.3 Environmental Impacts: No Action Alternative

The No Action Alternative would result in the solar facility not being constructed. The land could continue to be used for agricultural purposes and the zoning would not change, unless the landowner chooses to use the property for other purposes as allowed by the Morgan County Zoning Regulations.

3.4 Air Quality and Climate Change

3.4.1 Affected Environment

3.4.1.1 Air Quality

The Clean Air Act (CAA) requires the U.S. Environmental Protection Agency (EPA) to establish National Ambient Air Quality Standards (NAAQS; see U.S. EPA, 2023a) for six criteria pollutants: ground-level ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, particulate matter (PM_{10} [Particulate Matter between 2.5 and 10 microns in size] and $PM_{2.5}$ [Particulate Matter less than or equal to 2.5 microns in size]), and lead. These standards regulate the amount of each pollutant in the air due to all sources of that pollutant in ambient air. The

EPA designates areas that do not meet the NAAQS as nonattainment areas and provides a specified amount of time to achieve compliance (U.S. EPA, 2023b). Morgan County is not located within a nonattainment area.

The National Emissions Inventory (NEI) is a detailed annual estimate of criterial pollutants and hazardous air pollutants (HAPs) from air emission sources. Emission inventories provide an overview of the types of pollution sources in the area, as well as the amount of pollution being emitted on an annual basis. Emission inventories are useful in comparing emission source categories to determine which industries or practices are contributing to the general level of pollution in an area. The emissions inventory includes estimates of emissions from many sources, including point sources (facilities such as power plants, airports, and commercial sources), nonpoint sources (such as asphalt paving, solvent use, and residential heating), on-road vehicles, non-road sources (such as construction equipment, lawn and garden equipment, trains, barges, ships, and other marine vessels), and event sources (such as wildfires). This inventory estimates how much each county and state is contributing to air pollution for a given year. Table 3-1 summarizes the emission inventory data for Morgan County from the most recent NEI available, which was conducted in 2020.

Table 3-1. Emissions Inventory in Tons per Year for Morgan County

Source	CO[1]	NOx[1]	SOx[1]	PM_{10}[1]	$PM_{2.5}$[1]	VOC[1]	HAPs[1]	CO_2e[1]
Agriculture	0	0	0	4,462	918	397	155	0
Biogenics[2]	778	384	0	0	0	3,089	764	0
Dust	0	0	0	991	105	0	0	0
Fires	198	7	3	31	20	40	12	1,748
Fuel Combustion	430	44	2	64	64	70	26	0
Industrial Processes	67	115	0	1	1	87	19	0
Miscellaneous	15	0	0	21	19	1,418	91	0
Mobile	3,805	1,199	2	51	39	297	87	302,584
Waste Disposal	39	3	0	15	13	3	3	0
Total	**5,331**	**1,752**	**7**	**5,635**	**1,180**	**5,400**	**1,157**	**304,333**

Source: EPA, 2024.
NOx = oxides of nitrogen; SO_X = sulfur oxides; VOC = volatile organic compound; CO_2e = carbon dioxide equivalent.
Notes:
[1] Emissions are reported in metric tons.
[2] Biogenic emissions are those emissions derived from natural processes (such as vegetation and soil). Miscellaneous categories include bulk gasoline terminals, commercial cooking, gas stations, miscellaneous non-industrial (not elsewhere classified), and solvent use.

According to the 2020 NEI, the major pollutants emitted in Morgan County are greenhouse gases (GHGs) as measured in carbon dioxide equivalents (CO_2e), PM_{10}, volatile organic compounds (VOCs), and CO. The major contributor to both GHGs and CO is mobile sources, while the major contributor to VOC emissions is biogenics. Agriculture is the major contributor to PM_{10} emissions.

The EPA gives special protection to certain areas from air quality degradation through the use of more stringent requirements. The National Park Service (NPS) designates these areas as Class I and includes some, but not necessarily all, national parks, monuments, wilderness areas, and certain tribal lands (U.S. EPA, 2023b). The NPS designates most areas within the U.S. as Class II, meaning standard pollution control requirements apply. The Project area is within a designated Class II area, with Rocky Mountain National Park being the nearest Class I area approximately 80 miles to the west. According to CDPHE, there are no registered stationary sources of air pollution within a 6.2-mile radius of the proposed Project area (CDPHE, 2023). Sources of air pollution that

would not show up in the CDPHE database near the Project area include vehicles traveling along paved and unpaved roads and emissions from agricultural activities.

3.4.1.2 Climate

Morgan County has a generally dry climate, with an average of 13 inches (33 centimeters [cm]) of precipitation per year and low levels of humidity (Western Regional Climate Center [WRCC], 2023). Most of the precipitation occurs from April to September. Summer precipitation on the Colorado plains occurs largely from thunderstorms and the precipitation events are sometimes extremely heavy. Strong winds occur frequently in winter and spring. The Rocky Mountains to the west intercept much of the precipitation from Pacific storms during the winter. On average, there are 240 sunny days per year in Morgan County. The average July high is 89 degrees Fahrenheit (°F), and the average January low is 10 °F (WRCC, 2023).

3.4.1.3 Climate Change

The EPA agrees with scientific research that human activity has changed the composition of the Earth's atmosphere as GHGs including carbon dioxide, methane, nitrous oxide, and hydrofluorocarbons have been on the rise. These GHGs have heat-trapping properties (U.S. EPA, 2022). Throughout Colorado, no consistent long-term trends in annual precipitation have been detected as variability of precipitation is high, which makes detection of trends difficult. Climate model projections do not agree whether annual mean precipitation would increase or decrease by mid-century (Lukas et al. 2014). However, climate models predict that Colorado would warm by 4 °F by 2050, relative to the 1950-1999 baseline (Lukas et al. 2014).

3.4.2 Environmental Impacts: Proposed Action

3.4.2.1 Direct and Indirect Impacts

The proposed Project would generate minimal, localized, short-term emissions from vehicles and equipment during construction of solar, gen-tie, and interconnection facilities. Localized short-term fugitive dust from ground-disturbing activities associated with construction is likely but would be unlikely to negatively affect ambient air quality attainment status designated by the EPA. Emissions from these activities are quantified and compared to Morgan County totals below.

Over the long-term, minimal vehicular emissions associated with O&M would occur. These emissions would likely be similar to those that periodically occur from current farming activities in the area, and the long-term impacts to air quality associated with the O&M of the solar facility would be negligible. Those negligible potential emissions are not quantified here.

Emissions from the project include tailpipe combustion emissions from construction vehicles and equipment. Construction vehicle and worker vehicle tailpipe emissions are calculated using the EPA Motor Vehicle Emission Simulator (MOVES) software, Version 4.0. Project specifications, such as vehicle types, sizes, operating hours, and round-trip mileage, were input into the model to get project and location specific emissions. The MOVES model considers geography, and emissions are evaluated at the Morgan County level. Additionally, the MOVES model has a separate tool called NONROAD to evaluate construction equipment tailpipe emissions that take place but are not on regular roadways and not during commuting, which was also executed for this analysis.

Emissions are also quantified here for fugitive dust from construction earth moving and disturbance activities. The large-scale construction emissions factors provided in the Western Regional Air Partnership's (WRAP) Fugitive Dust Handbook (WRAP 2006) were utilized for these emission factors. Factors from Table 3-2 for average conditions were estimated to be applicable to the project construction. These emissions factors were

combined with acreage of disturbance that would undergo the full amount of construction, which is the 18 acres of planned exposed graded area of disturbance.

Table 3-2 below presents emissions from regulated pollutants and GHGs represented in CO_2e. Additionally, Table 3-2 compares those potential emissions to the Morgan County totals in Table 3-1 above and represents the comparison in a percentage.

Table 3-2. Estimated Project Emissions in Tons Per Year and County Comparison

Source	CO	NOx	SOx	PM_{10}	$PM_{2.5}$	VOC	HAPs	CO_2e
Construction Equipment (non-road)	3.41	5.07	0.013	0.26	0.25	0.43	0.53	4,785
Worker and Construction Vehicle Commuting	6.01	0.54	0.0037	0.012	0.011	0.21	0.22	790.4
Construction Fugitive Dust	-	-	-	23.76	2.38	-	-	-
Total	**9.43**	**5.61**	**0.017**	**24.03**	**2.64**	**0.65**	**0.75**	**5,576**
Morgan County Totals	**5,331**	**1,752**	**7.0**	**5,635**	**1,180**	**5,400**	**1,157**	**304,333**
Percentage of Project to Morgan County Totals	0.18%	0.32%	0.24%	0.43%	0.22%	0.01%	0.06%	1.83%

Beneficial long-term impacts to air quality and climate change would occur through the implementation of the proposed Project in that solar development would likely lead to a reduction in the reliance on the production of electricity from pollution-generating fossil fuels. No GHGs are associated with the generation of electricity from solar energy. Emissions are associated with the manufacturing, transportation of materials, and decommissioning of solar energy facilities. Nevertheless, the GHG emissions associated with the full lifecycle of a PV solar plant are substantially less than that of traditional fossil fuel power plant (NREL, 2021). Table 3-3 compares the average operations-phase and life cycle emissions for a PV solar plant to those from coal and natural gas plants.

Table 3-3. Solar Emissions Compared to Traditional Fossil Fuel Generation

Generation Technology	Operational Emissions (grams of CO_2e per kilowatt hour)	Life Cycle Emissions (grams of CO_2e per kilowatt hour)
Coal	1,010	1,001
Natural Gas	389	486
Solar (Photovoltaic)	0	43

Source: NREL, 2021.

An 80 MW PV solar farm is estimated to generate approximately 147,867,186 kilowatt hours (kWh) per year (NREL, 2024). Compared to a coal plant with the same annual output, the solar farm would emit 164,625 fewer tons of GHGs per year. Compared to a natural gas plant with the same annual output, the solar farm would emit 63,405 fewer tons of GHGs per year.

3.4.2.2 Environmental Commitments

Deriva plans to use water for dust abatement during construction, and construction vehicles and equipment would have state-required air emissions control devices. O&M vehicles and equipment would also have state-required air emissions control devices.

3.4.3 Environmental Impacts: No Action Alternative

The No Action Alternative would result in the proposed Project not being constructed, and therefore air quality and climate impacts associated with the Proposed Action would not occur. Existing emissions from farming activities in the Project area would continue. Higher GHG emissions associated with a traditional fossil fuel power plant compared to the PV solar plant would occur if Deriva did not construct the solar facility.

3.5 Soils and Geology

3.5.1 Affected Environment

The proposed Project is located within the Colorado Piedmont, a sub-province of the Great Plains Physiographic province (Barkmann et al., 2020). The surficial soil deposits mapped within the Project area consist of alluviums of Quaternary age that are less than 10,000 years old (Soil Survey Staff, 2023b). The soils in the Project area are sandy loams, clay loams, and clay (Table 3-4; Figure 3-1; Soil Survey Staff, 2023b). In general, sandy loams are moderately susceptible to detachment and runoff, while clays and clay loams have a moderately high runoff potential. To gauge erosion potential, soil K Factors, hydrologic soil groups, and runoff classes are included in Table 3-4 for each soil type.

Table 3-4. Soil Types and Erodibility in the Project Area

Soil Texture Symbol	Soil Name	K Factor[1]	Hydrologic Soil Group[2]	Runoff Class[3]	Percent of Project Area	Farmland Classification
BlA	Bijou loamy sand, 0 to 1 percent slopes	0.17	A	Very Low	2.2	Farmland of statewide importance
BlB	Bijou loamy sand, 1 to 3 percent slopes	0.17	A	Very Low	0.8	Farmland of statewide importance
BnA	Bijou sandy loam, 0 to 1 percent slopes	0.20	A	Very Low	4.7	Farmland of statewide importance
BoB	Bijou sandy loam, moderately deep, 1 to 3 percent slopes	0.20	A	Very Low	5.7	Not prime farmland
BvA	Bresser sandy loam, 0 to 3 percent slopes	0.15	B	Low	41.1	Farmland of statewide importance
HlA	Heldt clay, 0 to 1 percent slopes	0.17	C	Low	18.5	Not prime farmland
HtA	Heldt clay loam, 0 to 1 percent slopes	0.28	C	Medium	27.0	Not prime farmland

Source: Soil Survey Staff, 2023b.
Notes:
1 K Factors are based on soil properties such as texture, organic content, structure, and hydraulic conductivity. K factors range from 0.02 for the least erodible soils up to 0.64 for the most erodible soils.
2 Hydrologic groups are based on estimates of runoff potential, and soils are rated as A (high infiltration rate), B (moderate infiltration rate), C (slow infiltration rate), and D (very slow infiltration rate).

[3] Runoff class refers to the loss of water from an area by flow over the land surface, based on slope, climate, and vegetative cover. The classes are negligible, very low, low, medium, high, and very high.
[4] Farmland classification identifies map units as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland. It identifies the location and extent of the soils that are best suited to food, feed, fiber, forage, and oilseed crops.

The landowner practices no-till farming within the Project area, and approximately half of the Project area is designated "farmland of statewide importance." There are no prime, unique, or locally important soils identified in the Project area. Existing soil disturbances near the Project area have resulted from road grading, utility work, and development in and around rural residential properties. According to the National Land Cover Database (MRLC, 2019), approximately 3 percent of the area constituting the Project area and 1-mile buffer has been "developed," or disturbed by buildings, roads, and other infrastructure (144 of 5,543 acres).

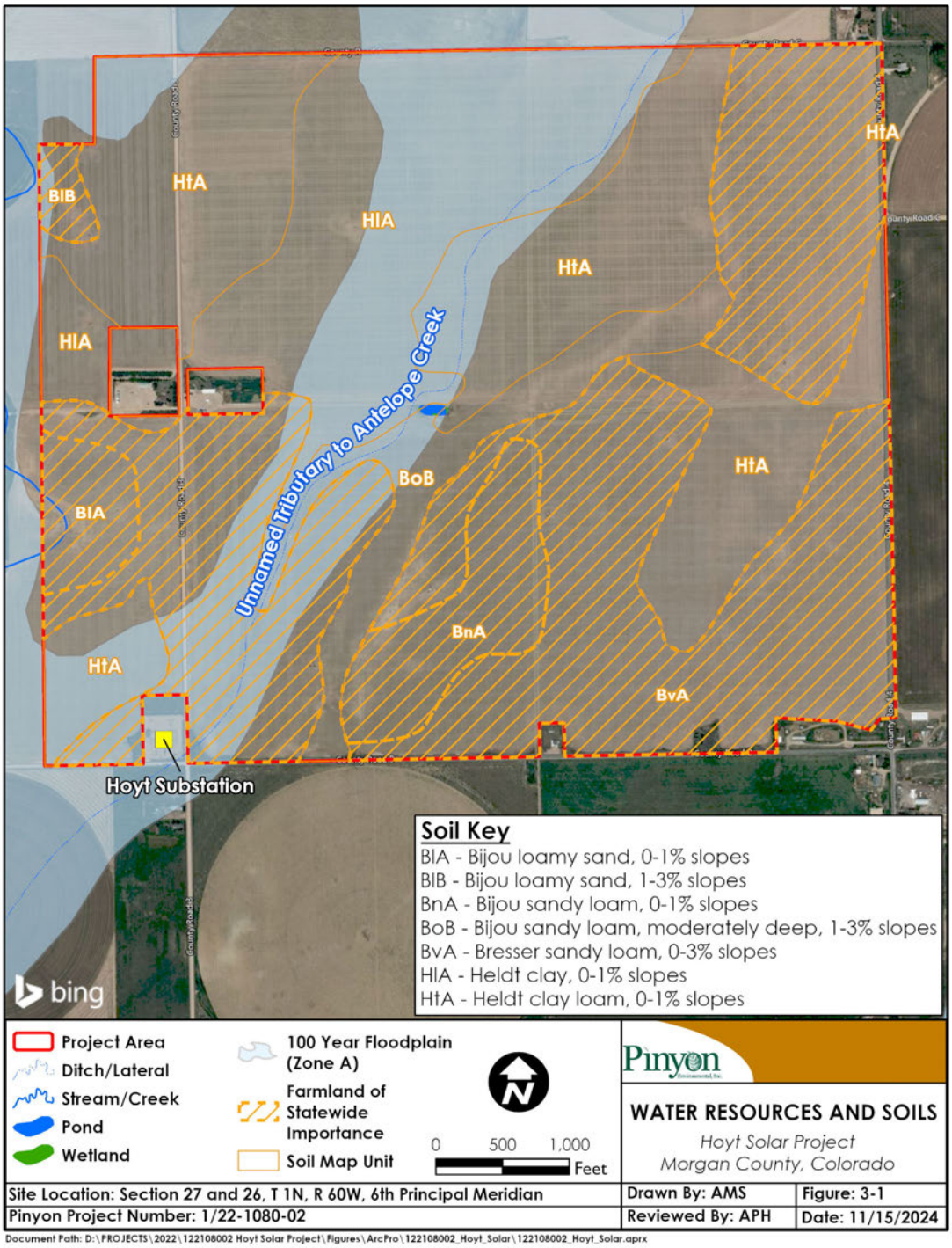

Figure 3-1. Water Resources and Soils

3.5.2 Environmental Impacts: Proposed Action

3.5.2.1 Direct and Indirect Impacts

The construction of the proposed Project would require disking and rolling of portions of the Project area, which would disrupt the top few inches of the soil profile. However, mass grading or topsoil removal would not be required and most of the soil profile would be left intact, except for 13 acres where roads and the Project collector substation would be constructed. The remainder of the site would be reseeded to stabilize and retain the topsoil.

Construction traffic, including passenger vehicles and heavy equipment, may cross all portions of the Project area during construction, temporarily compacting surface soils. Compaction may change the soil quality and moisture supply of farmland of statewide importance. For areas disturbed during construction outside of the permanent disturbance, deep ripping or deep tillage may be needed to return the soils to pre-construction conditions prior to reseeding. Soil compaction may occur prior or post disking and rolling; however, the natural climatic and geologic cycles would return soil conditions to their natural state over the course of time after construction is complete.

The soils within the Project area have low to moderate runoff potential, suggesting that erosion and offsite sediment transport during construction would be minor (Soil Survey Staff, 2023b). Soils, including farmland of statewide importance, may be temporarily impacted by erosion associated with ground disturbing activities, but these impacts would be minor. Total area with the potential to be temporarily disturbed by construction activities is approximately 750 acres. Potential indirect impacts to farmland of statewide importance may include the introduction of noxious weeds; however, this would be minimized through the implementation of the measures identified in Section 3.7.2.2.

Areas of long-term impacts to soils include O&M access roads, solar array pylons or posts, gent-tie line structures, and the area of disturbance for the onsite Project collection substation, and account for approximately 13 acres. Approximately 364 acres of farmland of statewide importance would be taken out of agricultural production during the life of the Project, or 0.1 percent of the farmland of statewide importance in Morgan County.

Decommissioning of the Project would include the removal of the Project components and the restoration of the Project area to pre-development conditions through revegetation and reclamation implementation. Topsoil would be retained onsite throughout the 40-year project life, seeded, and maintained as grassland below the solar panels. Studies have found that 40 years of grassland establishment on prior cropland improves soil health and nutrients (De et. al, 2020). Therefore, assuming all reclamation goals are achieved, all acres of farmland of statewide importance that would be displaced during the construction and operation of the Project could likely be restored following decommissioning.

3.5.2.2 Environmental Commitments

Construction would occur in a phased approach that would reduce the amount of soil that would be exposed to wind and water erosion at any given time. Deriva would use industry standard BMPs to minimize soil erosion and stabilize soils to allow time for revegetation of disturbed areas to occur. Initial soil stabilization practices may include use of hydro mulch or erosion control mats. Throughout construction, water trucks or small utility vehicles equipped with sprayers would be used to mist water on the soil surface to reduce aerosolization of the soil. The BMPs would be finalized in a Stormwater Management Plan once final engineering and Project layout had been determined. Additionally, the contractor would be required to implement an SPCC plan to minimize the potential for spills of petroleum products and hazardous materials to impact soils.

Topsoil would be left intact to the maximum extent practicable across most of the Project area. Where excavation is required (e.g., for collector line trenching), topsoil would be temporarily side cast and then replaced, decompacted, and seeded. Deriva would maintain an on-site native vegetation community compatible with the proposed solar facility's operation for the duration of operations at the facility.

3.5.3 Environmental Impacts: No Action Alternative

The No Action Alternative would result in the proposed Project not being constructed, and therefore the impacts to soils associated with the Proposed Action as described above would not occur. Soils would continue to be subject to regular planting cycles as part of ongoing farming activities, which may include minor amounts of erosion, compaction, and aerosolization due to farm equipment passing through the fields. The 364 acres of farmland of statewide importance mapped within the Project area would likely remain in crop production.

3.6 Water Resources

3.6.1 Affected Environment

The Project area lies within the South Platte River Valley drainage system. A small segment of Antelope Creek is located along the western Project boundary and an unnamed tributary to Antelope Creek extends from the southwest to the northeast across the Project area (Figure 3-1). Surface water generally flows in a northeasterly direction towards the unnamed drainage of Antelope Creek, which flows off-site and ultimately connects with Antelope Creek and meets the South Platte River near Fort Morgan, Colorado. The unnamed tributary to Antelope Creek is designated intermittent by the National Hydrography Database (USGS, 2023). This tributary lacks a defined channel, and no bed/banks or ordinary high-water mark are present. Because the tributary lacks features that would indicate it is a relatively permanent waterway, it is not considered a Water of the U.S. (WOTUS) and is therefore not subject to Section 404 of the Clean Water Act permitting through the U.S. Army Corps of Engineers (USACE). Bijou Creek, a tributary of the South Platte River, is located approximately 0.6 miles to the east of the Project area. It flows northeast from southeastern Adams County to a confluence with the South Platte near Fort Morgan.

An unnamed irrigation pond with adjacent wetland is in the center of the Project area. This feature is isolated and therefore also not a WOTUS. Deriva submitted a request for an Approved Jurisdictional Determination (AJD) to the USACE in December 2022. The USACE provided an AJD in January 2023 stating that there are no WOTUS within the Project area (USACE, 2023). According to CDPHE, there are no Clean Water Act 303(d) impaired waterways in this area (CDPHE, 2022).

The U.S. Department of Homeland Security , Federal Emergency Management Agency (FEMA) has delineated a Zone A 100-year Floodplain (Special Flood Hazard Area) along the unnamed tributary extending from the southwest corner of the site to the northeast, as well as a small area along the western edge that is floodplain adjacent to Antelope Creek (Figure 3-1) (FEMA, 2018).

The Project is located within the South Platte aquifer. Based on the Colorado Division of Water Resources database, over 12 wells exist in the Project area (CDWR, 2022). These wells penetrate the South Platte alluvial aquifer at depths ranging from 85 to 112 feet below ground surface with yields ranging from 15 to 1,000 gallons per minute. This aquifer sits below the site at a depth ranging from 0 feet (next to Antelope Creek) and greater than 112 feet in wells that run dry (CDWR, 2022). Groundwater declines have been noted for this general region (USGS, 2015).

3.6.2 Environmental Impacts: Proposed Action

3.6.2.1 Direct and Indirect Impacts

The Proposed Action would result in a minor increase in impervious area associated with the solar facility footprint; namely, the 6-acre collector substation site. Proposed access roads would have pervious surfaces. As a result, the increase in surface water runoff would be minor. In addition, proposed access roads and solar equipment would be sited to minimize indirect impacts to surface water features and floodplains. Temporary disturbance to the pond in the center of the site in the form of increased surface water runoff and temporary alteration of typical stormwater flows across the site may occur during construction, as sediment could mobilize during high precipitation events.

The proposed solar facility layout avoids direct impacts to USACE-regulated WOTUS. There would be temporary construction work in the floodplain along the unnamed tributary of Antelope Creek to install underground collection system lines. These lines would be installed through trenching and after installation, the trench would be backfilled with side cast soil to avoid future slumping and the surface would be revegetated. With the exception of the minimal footprint for gen-tie line poles, no above-ground structures are proposed for placement in the floodplain; therefore, flood flows and flood elevations would not be impacted.

Approximately 5 AF of water would be needed during construction for dust suppression. Water trucks or small utility vehicles equipped with sprayers would mist water on the soil surface to reduce aerosolization and offsite transport of soil. Water used for dust suppression would either be trucked in from a permitted offsite source or sourced from existing landowner-owned wells. No new wells would be drilled. If existing onsite wells are used, the property owner or contractor would first pursue appropriate permitting for use of the well(s) through the Colorado State Engineer's Office. Water used onsite would not exceed State groundwater standards in Regulations 5 CCR 1002-41 and 42. Dewatering activities are not anticipated for the proposed work because the water table is below anticipated excavation depths.

Because no surface water resources are in or near the footprint of WAPA's Hoyt Substation, no surface waters would be impacted by substation upgrades. In the event of a spill or leak during construction or operation of the onsite Project collection substation, impacts to groundwater would be unlikely because the depth to groundwater is more than 80 feet in this area (CDWR, 2022). With no surface water located within or near the footprint of WAPA's Hoyt Substation or transmission line right-of-way and the implementation of BMPs, impacts to water resources from substation upgrades would be negligible.

Long-term water use would be minimal (less than 10 AF per year, based on the average industry estimate of 20 gallons per megawatt hour per year [SEIA, 2024]), and would include periodic washing of solar panels, potentially using one of the existing groundwater wells within the Project area. Water would also be used to irrigate trees planted for landscape screening for at least 3 years; a landscaping/watering service would be retained that would source water for irrigation from municipal sources. If a landscaping/watering service is not available, water may be purchased from the landowner from an existing onsite well. Permitting and water rights for solar farm uses would be coordinated with the State Engineer's Office. The landowner currently has a well near the center of the Project area that is used for agricultural purposes; it is permitted for up to 155.6 AF per year (CDWR, 2022). Given that all water used for the Project would be appropriately permitted, and the amount of water used would be less than that currently permitted for agricultural use in the Project area, impacts to groundwater supplies would be minor.

Floodplain Statement of Findings

This EA contains information that comprises the floodplain assessment required by DOE in accordance with 10 CFR 1022.14. Using the latest authoritative information available, WAPA determined that construction of the gen-tie line and underground collector lines would occur within a 100-year floodplain. These actions would include installation of poles for the overhead gen-tie line, as well as trenching within the floodplain, installing cabling, backfilling the trench to match pre-construction contours, and revegetating the disturbed area. Floodplains are mapped on Figure 3-1 and impact to floodplains are discussed herein. The actions would conform to the applicable floodplain protection standards. Gen-tie and collector line routing alternatives were not considered since the floodplain bisects the project area, and therefore floodplain crossings could not be avoided economically through routing. Furthermore, the interconnection point (Hoyt Substation) is surrounded by the floodplain and any routing alternatives would increase the environmental impacts of the project. Hoyt Solar would minimize potential harm to or within floodplains through the standard construction practices listed in Chapter 2 of this EA and other mitigating actions described in Section 3.6.2.2. These include minimizing the amount of permanent infrastructure and grading in floodplains, restoring temporary disturbance areas to pre-construction contours, and revegetating temporary disturbance areas. There would be no effects of national or regional concern to floodplains associated with the Proposed Action.

3.6.2.2 Environmental Commitments

Temporary stormwater controls would be implemented to minimize erosion and sedimentation associated with construction activities per the CDPHE Construction Stormwater Discharge Permit. A Stormwater Management Plan would be developed in association with that permit that includes BMPs to reduce soil erosion and prevent sediment from leaving the construction site. These industry standard BMPs would be implemented to minimize soil erosion and siltation of nearby waterways during surface disturbing activities on the solar facility or the gen-tie transmission line.

An SPCC plan would also be prepared to provide measures for the prevention and mitigation of inadvertent releases of petroleum products. At a minimum, the spill containment volume around each piece of oil-filled equipment (such as the transformer at the project substation) would equal 100% of the oil volume plus a freeboard for rain water in a 25-year 24-hour event. Furthermore, no petroleum products or hazardous materials would be stored within 100 horizontal feet of Antelope Creek near the western side of the Project area, the unnamed tributary of Antelope Creek running through the center of the Project area, or Bijou Creek east of the Project area.

Contractors would be required to implement measures to prevent contamination of groundwater. Pouring wash water, solvent, or wastewater onto the ground would be prohibited. Waste materials would be sent for off-site disposal. Spills would be required to be cleaned up immediately and placed in suitable containers, as directed by the SPCC plan. Potentially contaminated soil or other media would also be containerized for disposal.

For work at the Hoyt Substation, WAPA would abide by their Construction Standard 13, Environmental Quality Protection (Appendix C). This Standard, specifically Standard 13.11, outlines measures that WAPA would implement to prevent spills of pollutants and respond immediately if a spill occurs.

All sources of water used for construction and operation of the Project would be appropriately permitted for use at the solar facility through the State Engineer's Office.

3.6.3 Environmental Impacts: No Action Alternative

The No Action Alternative would result in the proposed Project not being constructed, and therefore the potential impacts to water resources associated with the Proposed Action as described above would not occur. The landowner would presumably continue to use the existing wells in the Project area for agricultural and domestic purposes.

3.7 Vegetation

3.7.1 Affected Environment

The Project area is located within the *High Plains, Flat to Rolling Plains* ecoregion of Colorado (Chapman et al., 2006). This ecoregion consists of flat to rolling plains, dissected by mostly intermittent streams with a few large perennial streams with mostly silty or sandy substrates. The area is arid, with an annual precipitation between 12 and 18 inches. Wetlands often occur in this area as small, open, depressional playas.

Most of the Project area is agricultural land (Western Cool Temperate Fallow/Idle Cropland and Western Cool Temperate Wheat, according to U.S. LANDFIRE data [U.S. Department of Interior, Geological Survey, and U.S. Department of Agriculture, 2024]). The upland habitat outside of the agricultural field as observed during September 2022 and March 2024 site visits was dominated by mowed grasses and smooth brome (*Bromus inermis*). Other herbaceous species commonly noted included annual sunflower (*Helianthus annus*), cheatgrass (*Bromus tectorum*), common mullein (*Verbascum thapsus*), crested wheatgrass (*Agropyron cristatum*), curlycup gumweed (*Grindelia squarrosa*), kochia (*Bassia scoparia*), prickly poppy (*Argemone polyanthemos*), puncturevine (*Tribulus terrestris*), Russian thistle (*Salsola tragus*), and western wheatgrass (*Pascopyrum smithii*). Few trees were noted along the residential properties and included plains cottonwoods (*Populus deltoides*) and landscaped ornamentals. Some wetland vegetation was noted along the perimeter of the pond in the central portion of the Project area. Dominant vegetation in this area included barnyard grass (*Echinochloa crus-galli*) and narrowleaf cattail (*Typha angustifolia*) (Pinyon, 2022; Pinyon, 2024).

The Colorado Department of Agriculture (CDA) classifies noxious weed species into three categories: List A, List B, and List C. List A species are designated by the Commissioner of the CDA for eradication, List B species are managed to stop continued spread, and List C species are not required to be managed by local jurisdictions but are monitored to provide additional education and research (CDA, 2020). Weeds noted within the Project area were typical of those located along Colorado's Front Range. No List A or List B noxious weed species were noted. List C noxious weeds included common mullein, cheatgrass, and puncturevine. These species were scattered throughout the Project area and did not appear to be greater in densities than the surrounding landscape (Pinyon, 2022; Pinyon, 2024).

3.7.2 Environmental Impacts: Proposed Action

3.7.2.1 Direct and Indirect Impacts

Direct vegetative disturbance would occur from the construction of the access roads, underground collector lines, solar array posts, gen-tie line structures, and the onsite Project collection substation. WAPA maintains a bare earth standard within, and a 5-foot bare earth apron around, their substations, so no new direct impacts to vegetation would occur within and around the Hoyt Substation. Since the Project area is currently used as cropland, the Project would not impact native vegetation communities. The entire Solar Facility Buildable Area (about 472 acres) would be disked and rolled to remove existing cropland vegetation and accommodate the installation of solar panels. Disking breaks down soil clods and surface crusts. It would disrupt the root structure

of any remaining winter wheat crops and prepare the topsoil to receive native seed when the site is ready to be revegetated. Soil compaction could occur in some areas where trucks and heavy equipment drive on the surface; these areas would be ripped and scarified prior to reseeding to allow new seed to take. Areas of long-term impacts to vegetation include access roads, solar array pylons or posts, gent-tie line structures, and the onsite Project collection substation, and account for approximately 13 acres. Vegetation would be precluded from growing in these areas for the 40-year life of the project.

Minor indirect impacts from the introduction and spread of weeds from construction equipment and disturbances are anticipated to occur. Noxious weeds such as common mullein, cheatgrass, and puncturevine are early invaders of disturbed sites and can hinder the success of revegetation efforts. If allowed to proliferate in the Project area, they could also spread to surrounding agricultural properties, hindering crop productivity. Deriva would monitor for weed infestations and take appropriate measures to limit spread. If weed control such as herbicide application were needed, Deriva would seek technical assistance on appropriate noxious weed control methods from the Morgan County Weed Advisory. Indirect impacts associated with Hoyt substation upgrades could include the introduction of weed seeds inadvertently transported on equipment and vehicles. However, these potential impacts would be negligible because WAPA's Construction Standard 13.6 states that WAPA maintains a "clean vehicle policy" while entering and leaving construction areas to prevent transport of noxious weeds or seeds (Appendix C).

During the 40-year operational life of the Project, the vegetation community in the Project area would shift from winter wheat crops to a native grassland community. Studies have found that 40 years of grassland establishment on prior cropland improves soil health and nutrients (De et. al, 2020). Therefore, assuming all reclamation goals are achieved, the Project could likely be re-planted as productive cropland following decommissioning. The final vegetation community in the Project area after decommissioning would be determined by the landowner.

3.7.2.2 Environmental Commitments

Hoyt Solar would incorporate industry standard BMPs to minimize soil erosion potential and promote an on-site vegetative community compatible with the proposed solar facility's operation. This may include the use of hydro mulching, planting cover vegetation, and the implementation of an integrated vegetation management strategy. Topsoil would be retained intact onsite to the maximum extent practicable, and properly decompacted and prepared prior to seeding to maximize reclamation success. Temporarily disturbed areas would be revegetated with a County-approved native grass seed mix. Revegetation practices would be finalized after final solar facility engineering and layout is complete.

Deriva would implement a weed control plan that would dictate monitoring and weed control measures, which would be developed in coordination with the Morgan County Weed Advisory. WAPA would use only construction vehicles that are free of mud and vegetation debris to the Hoyt Substation area. Furthermore, if weeds become established at the onsite Project collection substation, Standard 13.6 provides for noxious weed control in compliance with federal, state, and local noxious weed control regulations (Appendix C).

3.7.3 Environmental Impacts: No Action Alternative

The No Action Alternative would result in the proposed Project not being constructed, and therefore the vegetation impacts associated with the Proposed Action as described above would not occur. The Project area would continue to be farmed and planted annually with winter wheat or other crops at the discretion of the landowner. Soils would continue to be subject to regular planting cycles as part of ongoing farming activities, which may include minor amounts of erosion, compaction, and aerosolization due to farm equipment passing through the fields. The existing prevalence and distribution of noxious weeds would likely remain similar to current conditions.

3.8 Wildlife Resources

3.8.1 Affected Environment

Little native wildlife habitat occurs in the Project area, which is currently used as cropland. Wildlife that may occur in the Project area include pronghorn (*Antilocapra americana*), mule deer (*Odocoileus hemionus*), white-tailed deer (*Odocoileus virginianus*), coyote (*Canis latrans*), gray fox (*Urocyon cinereoargenteus*), snakes, lizards, and rodents including black-tailed prairie dogs (*Cynomys ludovicianus*). Bats with the potential to migrate or forage over the Project area include big brown bat (*Eptesicus fuscus*), eastern red bat (*Lasiurus borealis*), hoary bat (*Lasiurus cinereus*), and silver-haired bat (*Lasionycteris noctivagans*). There is limited bat roosting habitat in the Project area (trees, primarily plains cottonwoods).

Bird species with the potential to occur in and forage over the Project area include migratory birds, such as killdeer (*Charadrius vociferus*), horned lark (*Eremophila alpestris*), western kingbird (*Tyrannus verticalis*), grasshopper sparrow (*Ammodramus savannarum*), lark bunting (*Calamospiza melanocorys*), Cassin's sparrow (*Peucaea cassinii*), and Brewer's sparrow (*Spizella breweri*); as well as raptors, such as American kestrel (*Falco sparverius*), burrowing owl (*Athene cunicularia*), ferruginous hawk (*Buteo regalis*), golden eagle (*Aquila chrysaetos*), great horned owl (*Bubo virginianus*), northern harrier (*Circus cyaneus*), prairie falcon (Falco mexicanus), red-tailed hawk (*Buteo jamaicensis*), rough-legged hawk (*Buteo lagopus*), and Swainson's hawk (*Buteo swainsoni*); and game birds such as wild turkey (*Meleagris gallopavo*) and ring-necked pheasant (*Phasianus colchicus*) (CNHP, 2024; NatureServe, 2024).

One species designated as a Bird of Conservation Concern by the U.S. Fish and Wildlife (USFWS) is listed as having potential to occur in the Project area, the golden eagle (USFWS, 2024a). No golden eagle nesting habitat is located within or near the Project area; however, golden eagles could forage at the site. No raptor nests were observed in or near the Project area during September 2022 or March 2024 site visits (Pinyon, 2022; Pinyon 2024). There are cottonwood trees in scattered locations within and near the Project area that may provide nesting habitat.

Habitat within the Project area is consistent with the surrounding area, which is primarily agricultural. The pond in the central portion of the property may attract wildlife, and the scattered trees likely provide shelter, nesting or perching opportunities for migratory birds, raptors, and bat species with the potential to occur in the area. An active black-tailed prairie dog colony was noted at the property just north of the Project area during the September 2022 site visit (Pinyon, 2022). Black-tailed prairie dog colonies attract predators, such as coyotes and raptors, and their burrows can provide shelter and nesting habitat for species such as burrowing owls, horned larks, mountain plovers (*Charadrius montanus*), rattlesnakes (*Crotalus* spp.), and white-tailed jack rabbits (*Lepus townsendii*). Burrowing owls were noted at the colony approximately 200 feet north of the Project area during the 2022 site visit (Pinyon, 2022). No prairie dog burrows were observed in this area during the March 2024 site visit and no burrowing owls were observed during the March 2024 site visit (Pinyon, 2024). The field where the prairie dog burrows were observed in 2022 was plowed and planted by the landowner between September 2022 and March 2024.

Scattered cottonwood trees within and near the Project area, human-made structures including barns, wetland vegetation surrounding the pond in the center of the Project area, and shrubs and grasses within the Project area all provide potential nesting habitat for migratory birds and raptors. The nesting season for most birds generally occurs from April through August, although raptors may nest as early as December.

3.8.2 Environmental Impacts: Proposed Action

3.8.2.1 Direct and Indirect Impacts

Impacts to wildlife from the proposed Project include loss of cropland habitat, habitat exclusion, and disturbance, and potential for direct mortality. The impacts of disking and rolling in the Solar Facility Buildable Area would temporarily remove habitat for burrowing and ground-nesting species. During construction, wildlife that occupied or used the Project area would likely be displaced by human activity and noise. Some individuals that are unable to avoid construction equipment could be harmed or killed, with more mobile species likely to avoid construction equipment. Because most species that use the project site are common, abundant species found throughout the region, and there is currently no high quality wildlife habitat in the Project area, displacement and direct mortality resulting from construction may have a short-term, minor impact to wildlife populations.

No wildlife habitat occurs at WAPA's Hoyt Substation, as vegetation there has been previously cleared. However, during construction, noise and activity might temporarily displace individual animals near the Hoyt Substation. This displacement of wildlife from the substation upgrades may have a temporary negligible impact on wildlife, with no long-term effects anticipated.

Grass and forb cover would be reestablished after construction. Small ground-dwelling species might continue to use the habitat available under the panels, but larger predators, such as raptors, may avoid the Project area. Large ungulates, including pronghorn, mule deer, and white-tailed deer, would be excluded from the area around the solar panels by the 8-foot-high perimeter fence. Areas of exclusion were calculated by determining the overlap between Colorado Parks and Wildlife (CPW)-mapped ranges for these species (CPW, 2023) and areas enclosed by the perimeter fence. As summarized in Table 3-5, these species would be excluded from 0.2 percent or less of their mapped ranges in the region. The resulting decline in species diversity may result in a minor long-term impact to wildlife.

Table 3-5. Loss of Ungulate Ranges within the Project Area.

Species	Overall Range Acres (Overall Range Percent)[1]	Concentration Area Acres (Concentration Area Percent)[1]	Winter Range Acres (Winter Range Percent)[1]
Pronghorn (*Antilocapra americana*)	396 (<0.1)	—	353 (<0.1)
Mule deer (*Odocoileus hemionus*)	396 (<0.1)	247 (<0.1)	14 (<0.1)
White-tailed deer (*Odocoileus virginianus*)	396 (<0.1)	396 (0.2)	396 (<0.1)

Source: CPW, 2023

Note:

[1] First number is acres in the fenced portion of the Project area; number in parenthesis is percentage of the entire mapped habitat unit.

Long-term, direct impacts may also occur to birds and bats through potential collisions with the gen-tie line, solar panels, and other proposed Project structures. Although bird and bat fatalities have been documented at PV solar facilities, data are largely limited to the desert southwest region (namely California and Nevada), and there

is no evidence to suggest that PV solar facilities have population-level impacts on birds or bats (REWI, 2023). It has been hypothesized that birds may perceive PV facilities as bodies of water, and therefore, migrating water birds might be susceptible to collisions when trying to land in the solar field. However, little evidence supports this hypothesis (REWI, 2023). The risk of collision may be highest during times of poor visibility and near areas where high numbers of birds either take off or land, such as roost sites, ponds, or concentrated food sources. The Project area or surrounding region does not have features that would likely attract high numbers of birds. The pond in the center of the Project area may attract some wildlife such as waterfowl and foraging bats, but the pond is small (~0.3 acre) and likely does not receive heavy use from large numbers of animals. Long-term collision impacts associated with the solar panels may therefore be minor.

Electrical components can create an electrocution risk to birds and bats. Multiple transmission lines enter/exit the Hoyt Substation, and the 300-foot-long gen-tie line would be routed in the same area. Siting multiple transmission lines near each other can reduce collision risk by creating a greater visual cue for birds and bats to avoid. If the clearance between energized and grounded components on the gen-tie line is greater than the wingspan of birds, the potential for electrocution is greatly reduced (APLIC, 2006). Design of the gen-tie line has not been finalized; however, Deriva would apply avian-friendly standards consistent with APLIC guidelines to the final design of the gen-tie line. The potential impacts on birds and bats related to collision risk would therefore likely be negligible.

3.8.2.2 Environmental Commitments

Pre-construction migratory bird nest surveys would be conducted within the Project area, and pre-construction raptor roost and nest surveys would be conducted within the Project area and its CPW-recommended 0.5-mile buffer, as outlined in CPW's *Recommended Buffer Zones and Seasonal Restrictions for Colorado Raptors* (CPW, 2020). Prior to ground-disturbance activities, including disking, "clear and grub" nesting surveys would occur within planned work areas within ten days prior to vegetation clearing. For work within 1/8-mile (660 feet) of a black-tailed prairie dog colony, burrowing owl surveys would be conducted to determine if owls are present in accordance with CPW protocols as outlined in CPW's *Recommended Survey Protocol and Actions to Protect Nesting Burrowing Owls* (CPW, 2021a)

Any active migratory bird nests noted would be flagged for avoidance until the young have left the nest. During the nesting season of raptors with the potential to occur in the Project area (generally December 15 through July 31; refer to *Recommended Buffer Zones and Seasonal Restrictions for Colorado Raptors* for species-specific nesting seasons), if nesting raptors are noted within 0.5-mile of the Project area, then the avoidance buffer recommendations outlined in CPW would be followed (CPW, 2020). If work avoidance within these species-specific buffers is not feasible, coordination with CPW may be required. If bald or golden eagle nests are observed to be active before construction or become active during construction activities, further coordination with CPW and/or USFWS would be required. If burrowing owls are noted during surveys and are present during construction within the nesting season (March 15-August 31), CPW buffer recommendations (1/8-mile for surface disturbances and ¼-mile for large industrial disturbances) would be followed, as outlined in CPW's *Best Management Practices for Solar Energy Development* (CPW, 2021b).

Temporarily disturbed areas would be revegetated with a County-approved native seed mix, which would continue to provide habitat for small wildlife species after the Project is constructed. Native trees would be planted in select locations along the perimeter of the solar facility, in coordination with local residents. The primary purpose of the trees would be visual screening, but these trees could also provide perching and nesting opportunities for birds. Deriva would construct the gen-tie line using avian-friendly standards to reduce the risk of collision and electrocution. Lighting used at the project would be kept to the minimum necessary for safety and security, downshielded, and dark sky compliant.

3.8.3 Environmental Impacts: No Action Alternative

The No Action Alternative would result in the proposed Project not being constructed. Therefore, the impacts on wildlife associated with the Proposed Action as described above would not occur. The site would continue to function as low-quality cropland wildlife habitat and remain available for use by small, medium, and large wildlife.

3.9 Special Status Species

The Endangered Species Act of 1973 (ESA, 16 U.S. Code [USC] 1531 et seq.) protects species that are federally listed as threatened (FT) or federally listed as endangered (FE). In accordance with the ESA, projects with a federal action that have the potential to affect federally listed species or their habitats require consultation under Section 7 of the ESA with the USFWS. Effects to candidate species are not required to undergo a Section 7 consultation unless the species becomes listed during project planning and construction.

The Bald and Golden Eagle Protection Act (BGEPA) is a federal statute that prohibits the "take" of an eagle without a permit, and further protects their feathers and parts, nests, nest trees, and winter/nighttime roosts. The BGEPA also addresses impacts that result from anthropogenic disturbance or alterations around an eagle nest that may disrupt normal breeding, feeding, or sheltering habits, and cause injury, death, or nest abandonment to an eagle.

Colorado state law (Colorado Revised Statutes [CRS] Annotated [Ann.] §§ 33-2-102-106), requires that the State maintain a list of species that have been determined to be endangered or threatened within the State. Colorado State Statute 33 authorizes CPW to regulate and protect the State's listed wildlife species. The Fish and Wildlife Coordination Act (16 USC §§ 661-667e) requires consultation between the agency in charge of the federal action and CPW as it relates to the conservation of species of concern resources for federal projects that result in changes to specific features of a body of water. State-listed species would also be considered should any consultation occur. WAPA does not have any agreements with CPW pursuant to CRS §33-2-106 that pertain to the Project.

3.9.1 Affected Environment

Based on a review of the USFWS online Information for Planning and Consultation (IPaC) System, there are federally listed species with the potential to occur in, or be impacted by, a project in this location (USFWS, 2024a). Two of these species are included because they occur downstream of the Project area along the Platte and/or Missouri Rivers and could be impacted by projects that result in water depletions to their tributary, the South Platte River. These species are the pallid sturgeon (*Scaphirhynchus albus*; FE) and piping plover (*Charadrius melodus*; FT). To address the effects water depletions may have on federally listed species that depend on the river for their survival, agencies and organizations—including public water suppliers—in Colorado participate in the South Platte Water Related Activities Program (SPWRAP). Water for this Project would either come from a permitted well or a permitted municipal source; therefore, potential effects to downstream species would be addressed through SPWRAP and these species are not discussed further. Additionally, the western prairie fringed orchid (*Platanthera praeclara*; FT), and whooping crane (*Grus americana*; FE) were included in the IPaC results for the Project. These species have traditionally been included as downstream species like the pallid sturgeon and piping plover but are currently included as "wherever found." As these species could occur downstream of the Project area, they are not discussed further.

A habitat assessment was conducted in September 2022, and updated in March 2024, to assess the potential of the remaining species on IPaC list to occur in or near the Project area (Pinyon, 2022; Pinyon, 2024; Table 3-6).

Table 3-6. Federally Listed Species Habitat Assessment Results

Common Name	Species	Federal Status	Habitat[1]	Potential for Occurrence in Project Area
Mammals				
Preble's meadow jumping mouse (PMJM)	*Zapus hudsonius preblei*	FT	In Colorado's Front Range, uses riparian areas of permanent or intermittent streams with herbaceous cover and adequate cover of shrubs and trees, as well as grasslands up to 100 meters adjacent to the 100-year floodplain for foraging and hibernation (USFWS, 2018).	**None.** Suitable habitat is not present. The 100-year floodplain of an unnamed tributary to Antelope Creek is mapped within the Project area (FEMA, 2018). However, adequate habitat to support PMJM (i.e., sufficient cover from riparian trees, shrubs, and herbaceous plants) is not present along Antelope Creek or its unnamed tributary within or adjacent to the Project area.
Tricolored bat	*Perimyotis subflavus*	PE	Forested areas near a water source with roosting habitat nearby. Roosting habitat includes trees, caves, rock crevices, and human-made structures, including buildings, bridges, and culverts.	**Low.** Marginal habitat (trees) occurs within and near the Project area; however, per the IPaC database, this species only needs to be considered if the project includes wind turbine operations (USFWS, 2024a).
Plants				
Ute ladies'-tresses orchid	*Spiranthes diluvialis*	FT	Sub-irrigated alluvial soils along streams; open meadows on floodplains including riparian areas. Adapted to moist-to-wet conditions and proximity to perennial or periodically flooded hydrologic features. The species generally occurs at elevations below 6,500 feet.	**None.** Suitable habitat is not present. The unnamed tributary to Antelope Creek likely does not provide the moist-to-wet conditions necessary for Ute ladies'-tresses orchids. Additionally, all soils within the Project area have a depth to water table of over 80 inches and are not considered hydric soils (Soil Survey Staff, 2023b).
Insects				
Monarch butterfly	*Danaus plexippus*	FC	Requires obligate larval host plant, milkweed (*Asclepias* spp.) for breeding. Adults feed on a variety of floral resources in a broad range of habitats within their migratory corridors.	**Low.** No milkweed was observed within or near the Project area; however, monarch butterflies have the potential to migrate through the Project area.

FT = federally listed as threatened, PE = proposed for federal listing as endangered, FC = candidate for federal listing

Note:

[1] Based on a review of distribution maps from NatureServe Explorer online (NatureServe, 2024) and the USFWS Environmental Conservation Online Explorer (USFWS, 2024b).

There are several state-listed threatened (ST) and state species of special concern (SC) with ranges that overlap the Project area (CNHP, 2024). A habitat assessment was conducted in September 2022 and updated in March

2024 to assess the potential of these species to occur within or near the Project area (Pinyon, 2022; Pinyon, 2024; Table 3-7).

Table 3-7. State-Listed and State Special Concern Species Habitat Assessment Results.

Common Name	Species	State Status	Habitat[1]	Potential for Occurrence in Project Area
Mammals				
Black-tailed prairie dog	*Cynomys ludovicianus*	SC	Shortgrass or mixed-grass prairie. Common in most of the counties of Colorado's eastern plains, especially those immediately along the Front Range.	**Medium.** Suitable habitat is present. An active black-tailed prairie dog colony was noted in the adjacent property to the north during the 2022 site visit. No black-tailed prairie dog colonies were noted within or near the Project area during the 2024 site visit.
Birds				
Burrowing owl	*Athene cunicularia*	ST	Burrows in prairie dog colonies in open grasslands, especially prairie, plains, and savanna.	**Medium.** While no prairie dog burrows or burrowing owls were observed during the 2024 site visit, a burrowing owl was observed in the black-tailed prairie dog colony adjacent to the Project area during the 2022 site visit.
Bald eagle	*Haliaeetus leucocephalus*	SC	Year-round Colorado resident, particularly near rivers and reservoirs. Prefers open canopies with large, mature trees for perching and nesting. Feeds on fish and carrion when available. In winter, may occur in grasslands farther away from water sources, where prairie dog colonies provide a potential food source.	**Low.** The Project area is located within CPW-mapped bald eagle winter range. Suitable foraging habitat was not observed within the Project area; however, foraging and nesting habitat is located about 0.5 mile east of the Project area along the Bijou Creek riparian corridor. Outside of the mapped winter range, the next closest mapped bald eagle habitat is winter forage located approximately 15 miles southwest of the Project area (CPW, 2023). The closest mapped nest is 19 miles from the Project area.

Common Name	Species	State Status	Habitat[1]	Potential for Occurrence in Project Area
Ferruginous hawk	*Buteo regalis*	SC	Semiarid grasslands with scattered trees, often with rocky mounds or outcrops. Nesting occurs in tall trees, steep slopes and cliffs, power line towers, or on sloped grounds. Prefers grasslands and pastures to cultivated areas, and generally avoids nesting in areas with intensive agriculture or high levels of human activity.	**High.** Multiple observations of ferruginous hawks within and directly adjacent to the Project area have been reported on eBird (eBird, 2024a). The Project area is located within CPW-mapped ferruginous hawk breeding range. Suitable foraging habitat is present, but no ferruginous hawks or nests were observed in the Project area. Scattered cottonwood trees in the areas surrounding the Project area may provide nesting habitat.
Long-billed curlew	*Numenius americanus*	SC	Breeds throughout eastern Colorado. Generally prefers areas near water, including prairies and grassy meadows near water sources. Nests on the ground in areas of short vegetation. Prefers grasslands for nesting but may forage in cropland.	**Medium.** No long-billed curlews were observed during 2022 or 2024 site visits. However, suitable foraging habitat occurs in the Project area, and long-billed curlews have been observed within 3 miles of the Project area (eBird, 2024b).
Mountain plover	*Charadrius montanus*	SC	In northeastern Colorado, nesting often occurs in flat, open areas including shortgrass prairie with a history of heavy grazing or in low shrub semideserts. Prefers grasslands for nesting. Winter habitat includes shortgrass prairie, plowed fields, sandy deserts, and commercial sod farms.	**Medium.** No mountain plovers were observed during 2022 or 2024 site visits; however, suitable winter foraging habitat occurs in the Project area. No records for mountain plovers within 10 miles of the Project area are in the eBird database (eBird, 2024c).

ST = state-listed as threatened, SC = state special concern species
Note:
[1] Based on a review of distribution maps from NatureServe Explorer online (NatureServe, 2024), CPW Species Activity Mapping (CPW, 2023), and the CODEX list generated for the Project area (CNHP, 2024).

3.9.2 Environmental Impacts: Proposed Action

3.9.2.1 Direct and Indirect Impacts

The Hoyt Solar Project would have no effect on federally listed species, as no federally listed species or suitable habitat occur within the Project area (see Table 3-6).

Monarch Butterfly

The monarch butterfly has low potential to occur in the Project area, as its larval host plant (milkweed) was not documented within or near the site during 2022 or 2024 biological resources surveys (Pinyon, 2022; Pinyon, 2024). However, the butterfly could migrate through the Project area. As the site currently lacks foraging habitat for monarchs, development of the solar project is anticipated to have minor impacts on this species. Installation of solar panels would not impede migration of these butterflies over the site. Reseeding with a native seed mix after construction could provide increased foraging opportunities for this species compared with existing conditions.

Black-tailed Prairie Dog

Black-tailed prairie dogs, a SC species, were observed in a colony in the field north of the Project area during the 2022 site visit, and burrows were visible within the Project area on historical aerial imagery from June of 2016 (Google Earth, 2024). However, no burrows were observed during the 2024 site visit. Updated imagery from July 2023 indicates that the field that had the burrows has been converted to cropland, and no longer supports a prairie dog colony (Google Earth, 2024). As no prairie dog colonies are currently present within or near the Project area, impacts to prairie dogs are unlikely. There is potential for black-tailed prairie dogs to recolonize the property prior to construction, particularly if agricultural activities cease. If prairie dogs are present in the Project area during construction, they could be subject to direct, short-term, minor impacts (mortality of individual prairie dogs or the localized population within the construction footprint). Over the long term, they could be displaced from the 472-acre project footprint, which would be a negligible effect on the overall prairie dog population (estimated to be stable and covering over 450,000 acres in Colorado as of 2020 [CPW, 2020]).

Burrowing Owl

Although burrowing owls were observed in the prairie dog colony just north of the Project area in 2022, as of 2024 this colony is no longer present, and there is no suitable burrowing owl habitat in or near the Project area. The prairie dog burrows that were observed during the September 2022 site visit had been removed by the landowner to cultivate the field by March 2024. There is potential that prairie dogs could recolonize the site prior to construction. Deriva would implement measures to comply with the MBTA that would include adherence to CPW burrowing owl protocols for minimizing impacts to this species (CPW, 2021a). Therefore, impacts to burrowing owls during construction would be negligible. Over the long term, burrowing owls could be displaced from the 472-acre project footprint, which would be a negligible effect on the overall population given that there are hundreds of thousands of acres of suitable habitat throughout the state (CPW, 2020).

Bald Eagle

Bald eagles were not observed within or near the Project area during the 2022 or 2024 site visits. No winter roosts or winter communal roosts are mapped within 20 miles of the Project area, and the closest mapped nest is mapped approximately 19 miles southwest of the Project area (CPW, 2023). There is potential for bald eagles to be present in the area for foraging or daily movement patterns; however, the Project area lacks concentrations of abundant prey that would be expected to attract eagles. Potential nesting habitat occurs along the Bijou Creek riparian corridor approximately 0.5 miles east of the Project area. If bald eagle nests are present within 0.5 mile of the Project area while construction activities are ongoing during the nesting season, they may be subject to direct, short-term, minor impacts from disturbance. Bald eagles near the Project area are likely acclimated to current low-to-moderate levels of human disturbance related to occupancy and agricultural practices. As day-to-day operation of the solar facility after construction would likely not significantly exceed pre-existing

disturbance levels from current agricultural activities and human use in the area, this project would likely have negligible impact to this species.

Ferruginous Hawk

Ferruginous hawks were not observed within or near the Project area during the 2022 or 2024 site visit; however, the Project area is located within ferruginous hawk breeding range and ferruginous hawk sightings have been reported to eBird within and immediately adjacent to the Project area (CPW, 2023; eBird, 2024a). There is high potential for ferruginous hawks to occur within the Project area for foraging or daily movement patterns. If ferruginous hawk nests are present within 0.5 mile of the Project area while construction activities are ongoing during the nesting season, they may be subject to direct, short-term, moderate impacts from disturbance. This species is especially prone to nest abandonment during incubation if disturbed (CPW, 2020). Deriva would minimize the potential to impact nesting raptors, including ferruginous hawks, by conducting pre-construction raptor nest surveys and adhering to CPW's raptor nest buffer guidance (CPW, 2020). Over the long-term, the Project would result in the loss of 472 acres of cropland foraging habitat for ferruginous hawks, a negligible impact considering that the site currently lacks high quality native grassland habitat. Currently the Project area is used for growing crops, which does not provide suitable nesting habitat.

Long-billed Curlew

Based on the habitat present and eBird observations within 3 miles (eBird, 2024b), long-billed curlews have medium potential to occur within the Project area. Potential impacts to this species would include the alteration of approximately 472 acres of cropland foraging habitat through the installation of solar panels and other infrastructure. After construction, this species may avoid the area since it would no longer provide preferred open foraging habitat. As the Project area does not currently provide high-quality native grassland habitat that could be used for nesting, this would have a long-term, negligible impact to this species.

Mountain Plover

Mountain plovers were not observed within or near the Project area during the 2022 or 2024 site visit; however, suitable winter foraging habitat was noted. The nearest mountain plover observation recorded on eBird is approximately 12 miles southwest of the Project area (eBird, 2024c). Potential impacts to this species would include the alteration of approximately 472 acres of cropland foraging habitat through the installation of solar panels and other infrastructure. After construction, this species may avoid the area since it would no longer provide preferred open foraging habitat. As the Project area does not currently provide high-quality native grassland habitat that could be used for nesting, this would have a long-term, negligible impact to this species.

3.9.2.2 Environmental Commitments

Prior to the start of construction, Deriva would conduct black-tailed prairie dog colony mapping, burrowing owl surveys, raptor roost and nest surveys, and mountain plover surveys. If prairie dog burrows are identified in the proposed disturbance footprint prior to construction, they would either be relocated or humanely euthanized outside of the burrowing owl season of occupancy (March 15 to October 31), in accordance with CPW guidelines. Additionally, burrowing owl surveys would be completed prior to construction activities between March 15 to October 31 in or near black-tailed prairie dog colonies, as outlined in CPWs *Recommended Survey Protocol and Actions to Protect Nesting Burrowing Owls* (CPW, 2021a). If active burrowing owl nests were found during the surveys, ground disturbance work would be avoided within 660 feet of active nests, and any large industrial disturbances would be avoided within ¼-mile of the active nests in accordance with CPW's *Best Management Practices for Solar Energy Development* (CPW, 2021b). After the nesting season and before burrowing owls migrate from the area (August 31 to October 31), if active use burrows are found during the

surveys, direct disturbance to these burrows (i.e., burying burrows through ground disturbance activities) would be avoided until the owls have vacated the area.

Bald eagles roost communally and singularly during the winter (November 15 and March 15) and nest between December 1 and July 31. In the season immediately prior to the start of construction, nest and roost surveys would occur in the 0.5-mile buffer around the Project area in the fall and/or winter, when deciduous trees lack foliage that may obscure nests. Should active bald eagle nests or roosts be observed within this buffer, then CPW nest and roost buffer guidelines would be followed (CPW, 2020).

Mountain plover nesting peaks from April to mid-June. Vegetation-clearing and ground-disturbing activities would occur outside of the nesting season (between September 1 and March 31), or "clear and grub" nesting surveys would be completed within planned work areas within 10 days prior to vegetation clearing. If active nests were noted, they would be flagged for avoidance until the young have left the nest. Inactive (unoccupied) nests may be removed at any time, but confirmation by a qualified biologist would occur prior to nest removal.

Design of the gen-tie line has not been finalized; however, Deriva would apply avian-friendly standards consistent with APLIC guidelines to the final design of the gen-tie line. The potential impacts on special status species related to electrocution and collision risk would therefore likely be negligible.

3.9.3 Environmental Impacts: No Action Alternative

The No Action Alternative would result in the proposed Project not being constructed. Therefore, the impacts on special status species associated with the Proposed action as described above would not occur. Impacts to these species associated with agricultural use of the property would continue, including potential inadvertent destruction of nests during ground disturbance and harvesting activities.

3.10 Cultural Resources

Cultural resources include historic properties, as defined in the National Historic Preservation Act of 1966, as amended, (NHPA; 16 U.S.C. 470 et seq.), archaeological resources, as defined in the Archaeological Resources Protection Act of 1979, as amended (16 U.S.C. 470aa-mm), and cultural items, as defined in the Native American Graves Protection and Repatriation Act of 1990 (25 U.S.C. 3001 et seq.).

Section 106 of the NHPA and its implementing regulations (36 CFR Part 800) "requires Federal agencies to take into account the effects of their undertakings on historic properties." The proposed interconnection request for the Project into WAPA's Hoyt Substation represents the proposed undertaking. Pursuant to 36 CFR § 800.4, WAPA determined the area of potential effects (APE) for the proposed undertaking. The APE represents "the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist." The APE for the proposed undertaking includes a block area totaling approximately 740 acres and corresponds to the Project area.

3.10.1 Affected Environment

Pinyon completed a Class I file search and Class III cultural resource inventory of the proposed undertaking APE in 2022. The results of the Class III cultural resource inventory are detailed in a report entitled, *Class III Cultural Resource Inventory for Hoyt Solar Project, Morgan County, Colorado* (Adams et al., 2023). The Class III cultural resource inventory resulted in the documentation of two previously recorded cultural resource sites (5MR.705 and 5MR.870), three new segments of previously recorded linear cultural resource sites (5MR.698.2, 5MR.701.1, and 5MR.702.1), 16 new cultural resource sites (5MR.1067 through 5MR.1073 and 5MR.1080 through 5MR.1088), and two new isolated finds (5MR.1089 and 5MR.1090).

In accordance with guidelines provided in 36 CFR § 60.4, all documented cultural resources were evaluated for eligibility to the National Register of Historic Places (NRHP). To be eligible for the NRHP, a cultural resource must meet one or more of the following criteria:

- Criterion A: association with events that have made a significant contribution to the broad patterns of our history; or
- Criterion B: association with the lives of persons significant in our past; or
- Criterion C: embodies the distinctive characteristics of a type, period, or method of construction, or that represents the work of a master, or that possess high artistic values, or that represents a significant and distinguishable entity whose components may lack individual distinction; or
- Criterion D: that yields, or may be likely to yield, information important in prehistory or history

Each documented cultural resource meeting one or more of the criteria above was also assessed for integrity of location, design, setting, materials, workmanship, feeling, and association. A resource must maintain sufficient integrity and meet one or more of the criteria above to be determined eligible for the NRHP. In general, properties less than 50 years of age, unless of exceptional importance, are not eligible for the NRHP.

3.10.2 Environmental Impacts: Proposed Action

3.10.2.1 Direct and Indirect Impacts

Twenty of the documented cultural resource sites (5MR.698.2, 5MR.701.1, 5MR.702.1, 5MR.705, 5MR.1067 through 5MR.1073, and 5MR.1080 through 5MR.1088) were determined not eligible for the NRHP and no further work or protective measures are required. Site 5MR.870 (the Hoyt School/Hoyt Community Center) was determined eligible for the Colorado State Register of Historic Places (SRHP) under Criterion A and not eligible for the NRHP. 5MR.870 will be avoided by construction activities associated with the proposed undertaking to ensure the site retains its significance under Criterion A of the Colorado SRHP. No further work or protective measures are required as it relates to the site's NRHP eligibility. The isolated finds (5MR.1089 and 5MR.1090) lack potential to yield additional data and were, therefore, determined not eligible for the NRHP. No further work or protective measures are required for the isolated finds.

The Colorado SHPO concurred with the NRHP and SRHP eligibility determinations for the proposed undertaking in a letter to WAPA dated April 19, 2024. The Colorado SHPO also determined that the proposed undertaking will have no effect on historic properties.

The potential that previously unidentified cultural resources will be encountered in the Project area during construction is minimal. This is based on the types of resources identified during the Class I and Class III inventory.

3.10.2.2 Environmental Commitments

To address the potential for encountering previously unidentified cultural resources, Deriva will prepare an Unanticipated Discovery Plan prior to construction that will prescribe steps for the contractor to follow in the unlikely event that previously unidentified cultural resources are discovered. Contractor personnel will be educated on the procedures outlined in the Unanticipated Discovery Plan prior to construction. The Unanticipated Discovery Plan will direct the contractor to halt work in the area immediately surrounding the

discovery until the cultural resource could be assessed by an expert, who will determine the appropriate treatment for the discovery. Work will not continue until proper treatment of the resource is completed.

To avoid potential impacts to 5MR.870 (the Hoyt School/Hoyt Community Center), Deriva has designed the Project with a 500-foot setback between the building and the nearest Project facilities.

3.10.3 Environmental Impacts: No Action Alternative

Under the No Action Alternative, WAPA would not provide an interconnection and the Project would not be constructed; therefore, there would be no direct or indirect impacts to cultural resources from the Project. Current land uses would continue to result in the same type and level of potential impacts to cultural resources.

3.11 Paleontological Resources

3.11.1 Affected Environment

Paleontology is a branch of geology that studies the life forms of the past, especially prehistoric life forms, through the study of plant and animal fossils. Paleontological resources are any fossilized remains, traces, or imprints of organisms preserved in or on the Earth's crust that are of paleontological interest and that provide information about the history of life on Earth. These include mineralized, partially mineralized, or unmineralized bones and teeth, soft tissues, shells, wood, leaf impressions, footprints, burrows, and microscopic remains. Paleontological resources are considered nonrenewable resources because the organisms they represent no longer exist, and therefore, if they are destroyed, they cannot be replaced.

The Bureau of Land Management (BLM) has mapped geological units across the western U.S. and assigned each unit a Potential Fossil Yield Classification (PFYC) corresponding to the likelihood of the unit yielding significant paleontological resources (BLM, 2016). The quaternary alluvium mapped within the Project area has a PFYC of Class 2, or low potential to contain paleontological resources. Units assigned to Class 2 typically have one or more of the following characteristics:

- Field surveys have verified that significant paleontological resources are not present or are very rare.
- Units are generally younger than 10,000 years before present.
- Units are recent aeolian (windborne) deposits.
- Sediments exhibit significant physical and chemical changes (i.e., diagenetic alteration) that make fossil preservation unlikely.

In the Project area, the alluvium is less than 10,000 years old, and considered too recent to yield significant paleontological resources.

3.11.2 Environmental Impacts: Proposed Action

3.11.2.1 Direct and Indirect Impacts

Excavations within the Project area are unlikely to encounter paleontological resources, since the alluvium underlying the site is considered unlikely to yield fossils. There is low potential that paleontological resources could be inadvertently destroyed by construction activities.

3.11.2.2 Environmental Commitments

Deriva would prepare an Unanticipated Discovery Plan prior to construction that would prescribe steps for the contractor to follow in the unlikely event that paleontological resources were discovered. Contractor personnel would be educated on the procedures outlined in the Unanticipated Discovery Plan prior to construction. The Unanticipated Discovery Plan would direct the contractor to halt work in the area immediately surrounding the discovery until the paleontological resource could be assessed by an expert, who would determine the appropriate treatment for the discovery. Work would not continue until proper treatment of the resource was completed. With these measures in place, impacts to paleontological resources would be negligible.

3.11.3 Environmental Impacts: No Action Alternative

The No Action Alternative would result in the proposed Project not being constructed, and therefore the impacts on paleontological resources associated with the Proposed Action would not occur. Existing agricultural activities would likely continue in the Project area and have low potential to impact paleontological resources.

3.12 Visual Resources

The term visual resources refers to the composite of basic terrain, geologic and hydrologic features, vegetative patterns, and human-built features that influence the visual appeal of a landscape. This section describes the existing context of the visual environment and assesses the potential impacts from the construction and operations of the Project.

Data used to characterize the baseline and analyze the impacts to visual resources from the Project include the following sources:

- EPA: Level IV ecoregions of Colorado (Chapman et al., 2006)
- BLM: visual resource inventory – Colorado, Royal Gorge Field Office (BLM, 2024)
- Bare earth digital elevation model
- Google Earth aerial imagery

The analysis area for visual resources is defined as a 3-mile radius from the Project area (Figure 3-2). An analysis area of 3 miles was established based on proposed Project elements and the existing landscape characteristics and represents the area in the surrounding landscape where potential visual effects from the Project could be discerned by the casual observer. Within the 3-mile analysis area, three distance zones were established: immediate foreground (0-0.25 mile), foreground (0.25-1 mile), and middle ground (1-3 miles). The analysis identified where Project components would be visible based on topographic variability and reflects the conservative scenario, or highest expected level of visibility, in determining sensitive viewing locations and potential visual impacts.

The Morgan County Comprehensive Plan was also reviewed for general land use regulation and limitation, including visual resources. The Plan states the following with respect to visual resources (Morgan County, 2008):

- Utility facilities are to be properly sited with due regard to environmental quality by minimizing impacts to agricultural and other surrounding land uses, visual quality, physical and biological resources.

- Utility facility siting should consider the consolidation with or joint tower use, paralleling of existing facilities where appropriate with regard to sound environmental planning, system reliability, structural integrity and where economically feasible.

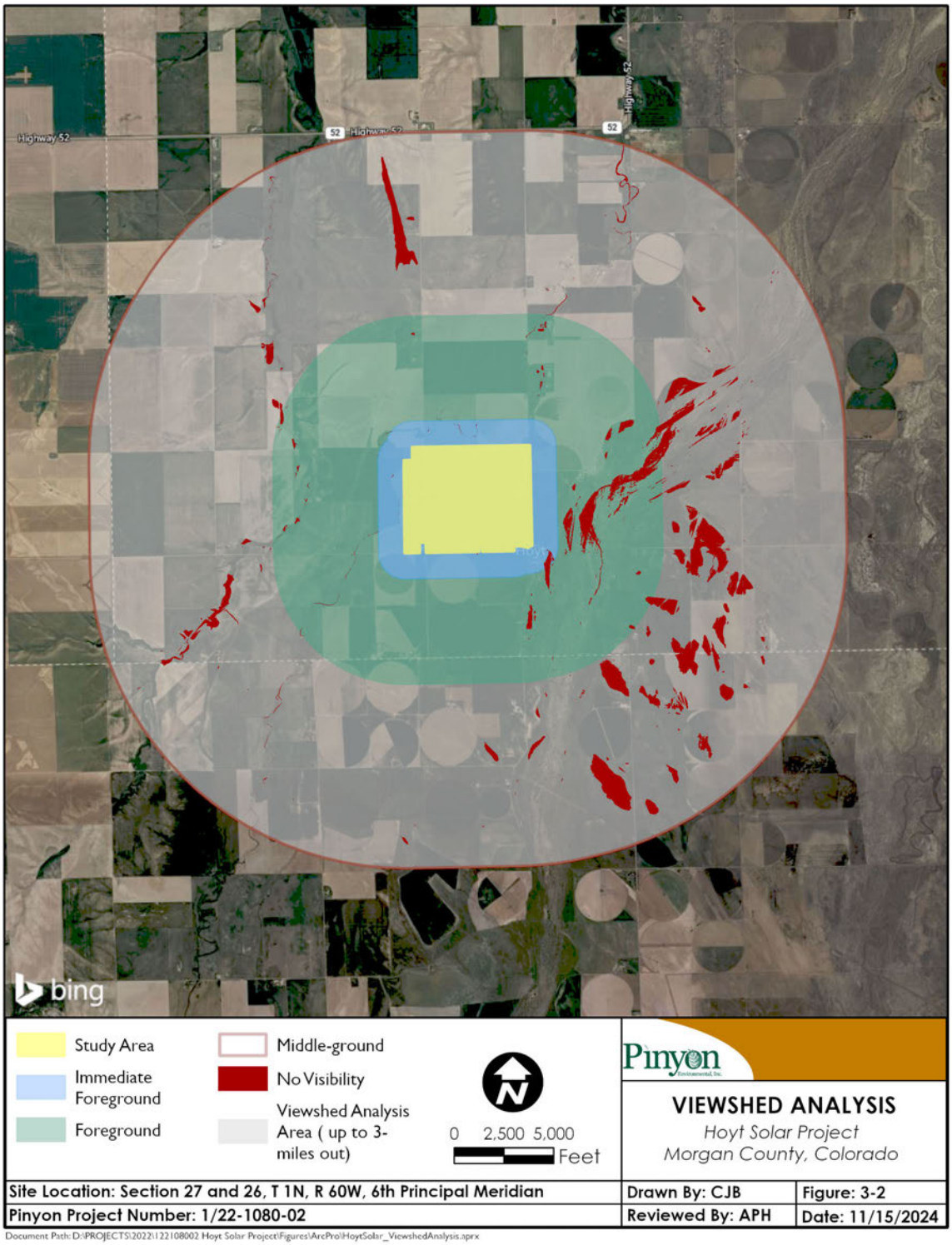

Figure 3-2. Viewshed Analysis

3.12.1 Affected Environment

3.12.1.1 Project Setting

The Project area is within the *High Plains, Flat to Rolling Plains* ecoregion of Colorado (Chapman et al., 2006). This ecoregion consists of flat to rolling plains, dissected by mostly intermittent streams with a few large perennial streams with mostly silty or sandy substrates. Vegetation is generally low in stature and typical views are of wide-open plains with little topographic relief. Anthropomorphic influences on the natural landscape include electrical infrastructure, roads, and various residential, agricultural, commercial, and industrial developments.

Scenic quality rating units (SQRUs) are defined by the BLM to encompass areas exhibiting similar landscapes. SQRUs are evaluated on a point scale in seven categories: landform, vegetation, water, color, influence of adjacent scenery, scarcity, and cultural modifications. The more diverse the landscape, the higher the unit is evaluated then rated from A to C. An A unit has highly diverse landscape characteristics, and a C unit has very little landscape characteristics. The entirety of the 3-mile analysis area is located within a C unit, the Eastern Plains. This unit is characterized by large, expansive flat to rolling landforms with limited vegetation consisting mostly of grasslands and localized clusters of trees. Wind turbines are prominent in some areas (BLM, 2024).

The analysis area is dominated by open agricultural fields (primarily cultivated croplands). As indicated in Section 3.3.1, there are several existing electrical transmission lines that cross the Project area including one that parallels the north side of County Road B along the southern boundary of the Project area, running east-west; one that bisects the Project area and parallels the east side of County Road 300 running north-south; one that parallels the south side of County Road B, along the northern boundary of the Project area, running east-west; and one that bisects the Project area running northeast-southwest, connecting into the existing WAPA Hoyt Substation. These modifications contribute to the aesthetics and visual setting of the Project area.

3.12.1.2 Residential Views

Residential viewers are considered potentially sensitive due to long viewing durations. There are approximately seven residential viewers dispersed within one mile of the existing Hoyt Substation. There are approximately 19 residential viewers dispersed within one mile of the Hoyt Solar Project area, with most residents located to the east and south. Current views for residents include open, agricultural landscapes (primarily crop fields) as well as existing road, farming, and utility infrastructure. Many of the residences in and around the Project area have windbreaks of planted trees that provide visual screening on one or more sides of the residence. Views for some residents to the east and southeast would be obscured by existing topography, as indicated by the viewshed analysis (Figure 3-2).

3.12.1.3 Travel Route Views

There are several local roads in the vicinity of the Project area, including the north-south routes County Road 4 and 300, and the east-west routes County Road B and C. Travelers on these roads would have a minor-to-moderate concern with changes in the landscape, due to travelers' potential exposure to views while traveling at the posted speed limits of 30 mph and 55 mph.

3.12.2 Environmental Impacts: Proposed Action

3.12.2.1 Direct and Indirect Impacts

The proposed Project would alter the visual character of the landscape by introducing solar panels and additional electrical utility infrastructure to the area. The effects of these changes on the visual environment are described below. The primary viewpoints of the proposed Project would be from residences and vehicle traffic in the vicinity of the Project area. Photo simulations were prepared to show views of the Project from 10 key vantage points within the analysis area (Figures 3-3 to 3-13).

Travelers' views of the proposed Project would vary greatly depending on the individual's driving route and construction or operational phase at the time. Views may be in the foreground to the middle ground and unobscured to fully screened, and views for drivers could be level to downgradient or upgradient. Project facilities would be visible from the county roads in the foreground of the Project, resulting in minor to moderate visual impacts for local drivers. Visual impacts to drivers in the middle ground or farther would be negligible to minor. Residences within the foreground of the Project area would have level to downgradient or upgradient view, and an unobstructed-to-screened view of the proposed solar facility due to variable vegetation, topography, and existing infrastructure within the analysis area (Figures 3-4 to 3-13). Residences in the middle ground and beyond would have even more intervening screening and topography that would obscure the solar Project from some vantage points, particularly to the east (Figures 3-8 and 3-10). At these distances, the Project would be most visible from the north (Figure 3-7).

During construction, equipment, generally larger than the average passenger vehicle, would be used to grade portions of the Project area and remove vegetation. In addition, the installation of solar panels and gen-tie line support structures would require specialized equipment to secure these support structures in the ground. Finally, excavation for foundations of the Project collection substation equipment would require the use of excavation-specific machinery. This construction equipment would likely draw the attention of local residents and vehicle traffic in the immediate foreground. Two residents are immediately adjacent to the Project area; these residents are lessors participating in the Project and therefore may be less sensitive to viewshed changes compared with nearby, non-participating residents. There are five other residences within 500 feet of the Project area. Four of these residences have existing vegetative screening between the house and the Project area; the fifth has an open view towards the Project area to the west. The magnitude of visual change would be greater for the residence with no existing visual screening compared to the other residences that have existing screening.

Drivers on local roads would have short duration views of the construction activities in the Project area. Construction would take place during normal business hours, while most residents would also be at their places of work and residential traffic in the area would be light; however, after construction activities end for a day or week, construction equipment would be parked and visible after hours and over weekends. Considering the size of the proposed disturbance and the proximity of some residents and local roads in the area, a limited number of people may be affected by the temporary change in the view resulting from construction activities.

Localized impacts on the visual character of the area around the proposed Project would occur from the development of the PV panel fields, onsite Project collection substation, and perimeter fencing. The solar field would consist of 840-foot-long rows of glass PV panels mounted on 5-foot-high steel structures and would be enclosed by 8-foot-high chain link fencing with security barbed wire stretched across the top of the fencing. The PV panels would be mounted on a tracker system that would follow the angle of the sun; the panels would be 8.25 feet high at their maximum. The 6-acre Project collection substation would include a 25-foot-tall transformer and high voltage breaker and 70-foot-high static mast. From the Project collection substation, a 115-kv gen-tie line, including poles up to 80 feet high, would interconnect the Hoyt Solar Project to WAPA's Hoyt Substation. For assessing visual impacts, each element of the solar facility is analyzed individually below.

The Project collection substation would be located northwest of the existing WAPA's Hoyt Substation. The Project substation would be most obvious to travelers on County Road B, while viewers southeast of the Project area may not even recognize the new infrastructure through the screening of the existing Hoyt substation. The Project collection substation would be consistent in appearance with infrastructure in the immediate area with no discernable contrast with the surroundings. Negligible-to-minor impacts to the visual resources would result from the Project substation for both residential and traveler viewers of the proposed Project.

The gen-tie line would be a 300-foot-long transmission line consisting of steel poles up to 80 feet high and connecting the proposed solar facility to WAPA's Hoyt Substation. The gen-tie line would be located close to existing transmission lines. This co-locating of the gen-tie line with existing transmission lines complies with the Morgan County Comprehensive Plan recommendation to consolidate utility infrastructure (Morgan County, 2008). The inclusion of a new overhead power line near existing transmission lines would have a negligible impact on the visual resources of the Project area, as the gen-tie line would not have elements that would substantially differentiate it from existing transmission lines that cross the Project area.

While these developments, the gen-tie line and Project collection substation, represent a visual change over existing conditions, these changes would likely be viewed as negligible to minor due to their proximity to existing transmission infrastructure on the landscape. The overwhelming majority of the proposed Project, however, includes the development of 472 acres of solar field. The solar field would consist of 5-foot-high glass PV panels mounted on steel structures and would be enclosed by 8-foot-high chain link fencing. The proposed solar field would span over one mile east to west and one mile north to south. The solar field would not be a homogenous rectangle of panels but would include a large surface area that would be visible for a considerable distance (Figures 3-4 to 3-13). The solar field would be located in the vicinity of existing electric utility infrastructure, but the size of the solar field would far exceed the current visual limits of the existing infrastructure. Horizontal, dark-colored solar arrays would demand attention, create a strong magnitude of change to the existing landscape character, and result in a strong visual contrast when viewed within the immediate foreground. The intactness, unity, and vividness of the agrarian landscapes in the analysis area would be impacted because the change from agricultural lands to PV panels would encroach on and diminish the overall visual composition of the landscape's existing character. As viewers transition into the foreground and middle ground, perceivable visual contrast would begin to decrease the farther the viewer is from Project components (Figures 3-4 to 3-13).

Furthermore, solar panels can have a reflective surface depending on the technology used for the system. The panels used for the Project would be covered with a 2-millimeter layer of heat strengthened glass with anti-reflective coating to minimize reflection. Based on the size of the proposed solar facility, proximity of residents and passenger traffic, and the minimal potential for solar panels to be reflective, the proposed solar field would have a moderate impact on the views and visual resources within the foreground, and a minor impact on the views and visual resources in the middle ground. These impacts would be long-term, and likely have the greatest impact on residents in the immediate foreground of the Project area.

At the end of the Project life, removal of Project infrastructure would create an immediate reversion and influence the degrees of visual change to preconstruction characteristics in a short duration of time as a result. There would be an unknown duration of time for the Project footprint to be no longer visible and for the vegetation within the Project area to return to its preconstruction state. If the landowner chose to revert the site back to cropland, this change could occur relatively quickly – as soon as the site is cleared and planted.

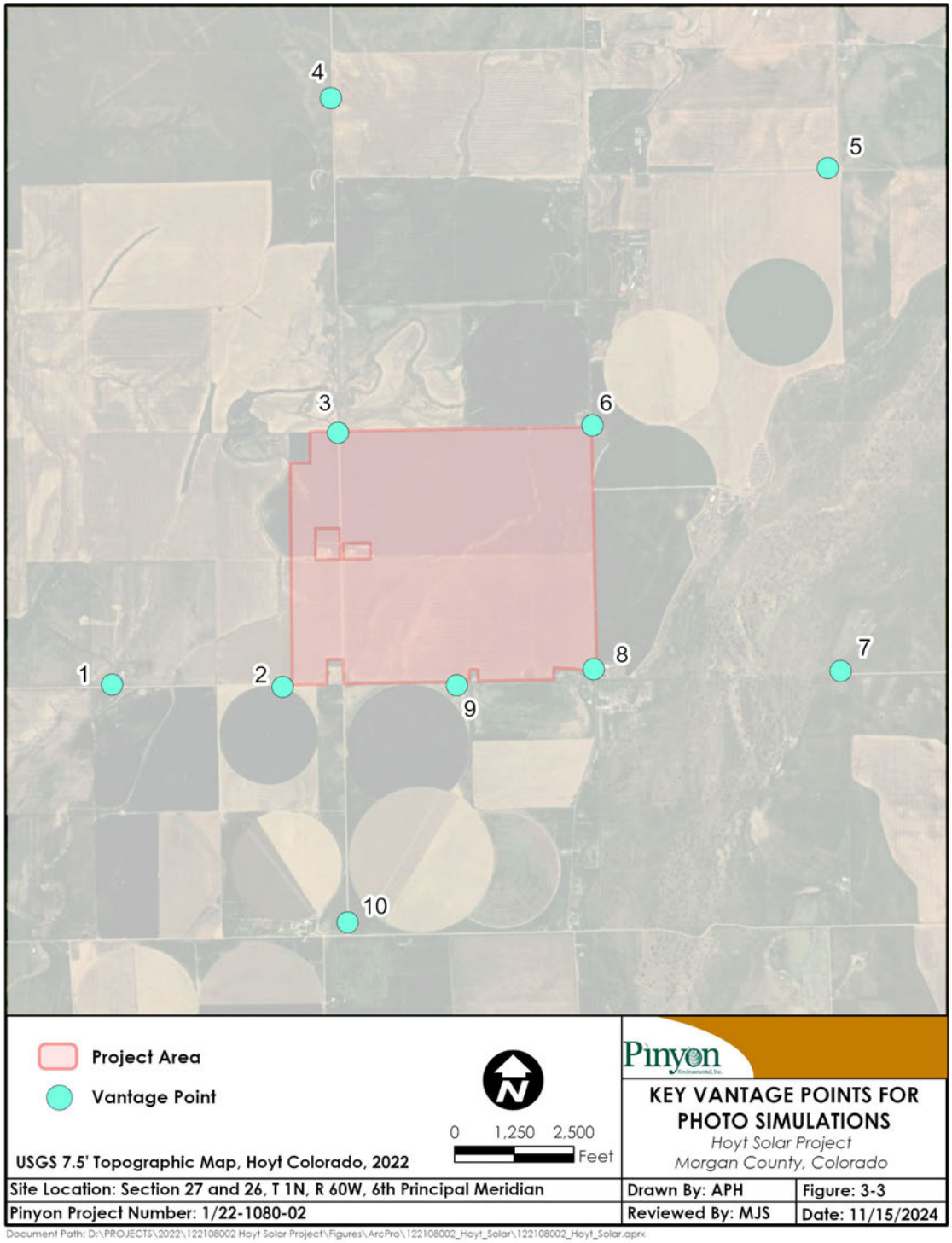

Figure 3-3. Key Vantage Points for Photo Simulations

Figure 3-4a. View Towards Project Area from Vantage Point 1 – Pre-construction

Figure 3-4b. View Towards Project Area from Vantage Point 1 – Post-construction

Figure 3-5a. View Towards Project Area from Vantage Point 2 – Pre-construction

Figure 3-5b. View Towards Project Area from Vantage Point 2 – Post-construction

Figure 3-6a. View Towards Project Area from Vantage Point 3 – Pre-construction

Figure 3-6b. View Towards Project Area from Vantage Point 3 – Post-construction

Figure 3-7a. View Towards Project Area from Vantage Point 4 – Pre-construction

Figure 3-7b. View Towards Project Area from Vantage Point 4 – Post-construction

Figure 3-8a. View Towards Project Area from Vantage Point 5 – Pre-construction

Figure 3-8b. View Towards Project Area from Vantage Point 5 – Post-construction

Figure 3-9a. View Towards Project Area from Vantage Point 6 – Pre-construction

Figure 3-9b. View Towards Project Area from Vantage Point 6 – Post-construction

Figure 3-10a. View Towards Project Area from Vantage Point 7 – Pre-construction

Figure 3-10b. View Towards Project Area from Vantage Point 7 – Post-construction

Figure 3-11a. View Towards Project Area from Vantage Point 8 – Pre-construction

Figure 3-11b. View Towards Project Area from Vantage Point 8 – Post-construction

Figure 3-12a. View Towards Project Area from Vantage Point 9 – Pre-construction

Figure 3-12b. View Towards Project Area from Vantage Point 9 – Post-construction

Figure 3-13a. View Towards Project Area from Vantage Point 10 – Pre-construction

Figure 3-13b. View Towards Project Area from Vantage Point 10 – Post-construction

3.12.2.2 Environmental Commitments

To reduce visual impacts, Deriva has applied setbacks from nearby residences such that all solar panels would be at least 500 feet from houses (Figure 2-1). Construction would occur during daylight hours only, eliminating the need for temporary construction lighting. All permanent site lighting would be dark-sky compliant, down-shielded, and limited to the extent required for human health and safety, as well as site security.

Reclamation of all temporary surface disturbances would be initiated upon completion of activities, to the extent practicable. Reclamation of disturbed areas shall, to the extent practicable, include contouring disturbances to blend with the surrounding terrain, replacing topsoil, smoothing and blending the surface contours to minimize impacts to aesthetics and scenery resources, and seeding the disturbed areas with native seed.

In addition, Deriva would work with residents in the immediate foreground of the Project area on an individual basis to implement visual screening measures, which could include planting trees and shrubs between houses and the project fence or installing screening material on portions of the fence near houses. Shrubs would also be planted between the Hoyt Community Center and Project to provide visual screening for that location. Final screening measures would be dictated by the preferences of the resident. Tree and shrub types and sizes would be discussed with residents and selected to maximize survival (i.e., using locally adapted species) and screening. Deriva would water tree and shrub plantings for a minimum of 3 years to support successful establishment of vegetated buffers.

3.12.3 Environmental Impacts: No Action Alternative

The No Action Alternative would result in the proposed Project not being constructed, and therefore the impacts to visual resources associated with the Proposed Action as described above would not occur. The existing visual character of the landscape as an agricultural field would persist.

3.13 Transportation

3.13.1 Affected Environment

This section describes the existing transportation system within the Project area and potential impacts of the proposed Project on traffic. The current transportation system in the Project area is automobile oriented, relying on public roads and highways. The closest airport is Denver International Airport, located approximately 30 miles southwest of the Project area. No major highways or railways are located within 5 miles of the Project area. County Road 4 runs north-south along the eastern edge of the Project area, while County Road 3 runs north-south within the western portion of the Project area. County Roads B and C are the main access points along the northern and southern portion of the Project area, respectively, running east-west. These roads are a mix of dirt, gravel, and hard surface.

3.13.2 Environmental Impacts: Proposed Action

3.13.2.1 Direct and Indirect Impacts

A negligible-to-minor impact on transportation would occur with the implementation of the Proposed Action. A temporary increase in traffic volume of up to 125 passenger vehicle and 11 haul truck round trips per day may occur on existing transportation facilities during construction of the proposed solar facility components. If roadways needed to be closed during construction, traffic control measures would be implemented, which may include signage or live traffic control using flaggers. Closures would be coordinated with the Morgan County Public Works, Road and Bridge Department through a Road Agreement, discussed below in Section 3.13.2.2.

The Project would not require improvements to existing transportation facilities. Deriva would construct or improve existing roads within the Project area and would regularly maintain the facility's access roads. The exact number, locations, and length of those roads would be determined during final engineering and site layout design (see Figure 2-2 for a preliminary layout). An increase in traffic volume of up to 10 daily round trips (light-duty passenger vehicles and pick-up trucks) is anticipated during O&M of the facility. No impact to rail service or air traffic would occur as a result of the Proposed Action.

3.13.2.2 Environmental Commitments

As required by the Morgan County Zoning Regulations, Deriva would enter into a Road Agreement with the county and work cooperatively with the county Road and Bridge Department to:

1) Conduct a pre-construction baseline survey of county roads to be used during construction;

2) Provide a mitigation plan to address traffic congestion and potential impacts to county roads to be used during construction;

3) Provide for a legally binding agreement between Deriva and the county that would require Deriva to return impacted county roads to their pre-construction baseline condition.

The Road Agreement with Morgan County would provide a legally binding mechanism whereby the Project's impacts to the transportation network surrounding the Project area would be minimized.

3.13.3 Environmental Impacts: No Action Alternative

The No Action Alternative would result in the proposed Project not being constructed. Therefore, the impacts on transportation associated with the Proposed Action would not occur. Traffic and maintenance on local roads would continue in accordance with existing trends.

3.14 Public Health and Safety

3.14.1 Affected Environment

Wiggins Rural Fire Protection District covers portions of Morgan and Weld counties, including the community of Hoyt, and there is a station located approximately 3 miles from the Project area. Wiggins Police Department is the closest police department to the Project area, located approximately 14 miles directly north of the Project site. The community of Hoyt does not directly participate in a hazard mitigation plan due to its rural nature, but Morgan County has a Hazard Mitigation Plan for Northeast Colorado (NCEM, 2021). This Hazard Mitigation Plan provides surrounding areas with a strategy for reducing long-term risks to people, property, and natural resources. Key hazards identified in the Hazard Mitigation Plan for Morgan County include blizzards and severe winter storms, dam failures/levee failures, drought, flooding, hailstorms, and tornadoes.

CDPHE, the agency that manages hazardous waste in Colorado (under the authority of CRS 25-15 Parts1-3), defines hazardous waste and the applicable regulations for Colorado. A Phase I Environmental Site Assessment has not yet been completed for the Project area, but one would be completed prior to construction to identify potential locations of hazardous materials in the Project area. The EPA's EnviroMapper application was reviewed for information on known hazardous materials sites reporting to the EPA (EPA, 2023c). No sites were included in the EnviroMapper database within 1 mile of the Project area.

Noise is a potential consideration for public health and safety, and the affected environment is a quiet, rural area. Daytime noise levels in rural areas with no significant noise sources are typically in the range of 30 to 40 a-weighted decibels (dBA) (FHWA, 2018). Farming equipment such as tractors may introduce much louder sounds of 100 dBA or more when in use (Smith, 2009).

3.14.2 Environmental Impacts: Proposed Action

3.14.2.1 Direct and Indirect Impacts

Construction-related hazards associated with the Project include accidents such as falls or trips, injuries from unguarded equipment, risk of fire sparked by vehicles and activities such as welding, and electrocution. Noise from construction equipment could pose a hazard to those working on site or pose a nuisance to nearby residents. Construction equipment such as backhoes, pile drivers, scrapers, bulldozers, dump trucks, watering trucks, forklifts, concrete trucks, and compactors may be used. These types of equipment typically have noise levels in the range of 80-90 dBA, which can damage hearing of those in close proximity (Zitzman, 2018). Sound levels would attenuate with distance, and construction would occur only during daylight hours. The Project would comply with the Colorado Noise Statute, which provides for a maximum permissible noise level from construction projects of 80 dBA between 7 a.m. and 7 p.m. at a distance of 25 feet from property lines (C.R.S. 25-12-103). Impacts to local residents from noise would be moderate and short-term.

Construction of the proposed Project is not anticipated to create an unreasonable amount of additional demand on police or emergency services, nor is it anticipated to release hazardous materials that could pose a health and safety risk. Petroleum products and chemicals used on site including fuel, lubricants, insulating materials, fireproofing, and degreaser would be stored at a secure location. The solar panels would contain trace amounts of heavy metals, which would be fully encapsulated within the panels and therefore not leach into the surrounding environment. Any waste streams generated, including potential hazardous materials, and the panels at the end of their useful life, would be removed and disposed of off-site at a certified disposal facility, or recycled when appropriate. With the application of the practices discussed in Section 3.14.2.2, impacts on public health and safety from the Project would be negligible.

During operation of the facility, increases in ambient air temperatures in the immediate vicinity of the solar panels may occur, especially in hot, sunny conditions, with increases in ambient temperature of up to 7.2 degrees F found in one study (Barron-Gafford et al., 2016). This is known as a “heat island” effect. Other studies have found that temperature increases are limited to the immediate vicinity of solar facilities, or that solar facilities have a cooling effect (Fthenakis and Yu, 2013; Guoqing et al., 2021). There is no evidence to suggest that the Project would create a temperature change of great enough magnitude as to create a hazardous condition, or contribute to droughts, fires, or crop failures in the surrounding area.

3.14.2.2 Environmental Commitments

Construction would be performed by licensed contractors and would be carried out in compliance with Occupational Safety and Health Administration (OSHA) and WAPA Construction Standards to minimize the risk of construction-related accidents or injuries. Safety planning, including trainings and meetings, would occur to reduce the risk of construction-related accidents. The solar arrays and all associated electrical equipment would be surrounded by perimeter fencing for safety and security. In addition, the solar panels and associated equipment would be maintained and operated in accordance with manufacturer specifications and applicable OSHA requirements to ensure the safety of site personnel and the public, and in a manner that reduces fire risks. Any waste streams generated, including potential hazardous materials, and the panels at the end of their useful life, would be removed and disposed of off-site at a certified disposal facility, or recycled when appropriate. As indicated in Section 2.2.6, to minimize this potential of transformers and inverters to introduce petroleum

products to the environment, Deriva would develop an SPCC plan. Detailed design layout and construction methods of site drainage, retention, and contaminant containment would be identified in the SPCC. The plan would also outline measures for cleanup and management of any potential spills. Additionally, a SWPPP would be developed that includes BMPs to reduce soil erosion and prevent contaminant-laden stormwater from leaving the construction site.

3.14.3 Environmental Impacts: No Action Alternative

The No Action Alternative would result in the proposed Project not being constructed, and therefore the public health and safety impacts associated with the Proposed Action, as described above, would not occur.

3.15 Socioeconomics

This section describes the existing socioeconomic conditions and the effects the Proposed Action could have on socioeconomic conditions. Employment opportunities and housing for employees are the socioeconomic conditions identified for analysis. The makeup of the project workforce has not yet been determined; however, it is likely that much of the workforce would be based in Morgan, Weld, and Adams counties. Therefore, socioeconomic data for these three counties is presented below.

3.15.1 Affected Environment

Socioeconomic metrics for Morgan, Weld, and Adams counties are summarized in Table 3-8.

Table 3-8. Socioeconomic Metrics.

Metric	Morgan County	Weld County	Adams County	Colorado
Total Employment	14,282	161,403	272,206	3,117,100
Unemployment Rate	3.1%	3.3%	3.5%	3.7%
In civilian labor force, total percent of population age 16 years+	64.4%	69.8%	72.8%	68.9%
Median Household Income	$70,471	$91,565	$91,367	$89,302
Vacant Rental Units	278	8,771	5,308	132,100
Housing Units	11,566	128,978	196,598	2,590,205
Median Home Value	$277,400	$456,100	$483,200	$531,100
Total Accommodation and Food Service Sales	$66,142	$405,976	$1,018,988	$19,455,751
Population	29,524	359,442	533,365	5,877,610

Source: U.S. Bureau of Labor Statistics, 2024; U.S. Census Bureau, 2024.

The Morgan County population has increased slightly in the past decade, with the 2010 population at 28,159 (U.S. Census Bureau, 2024). Adams County to the south is much more populous than Morgan County and grew from 441,603 to 533,365 from 2010 to 2023 (U.S. Census Bureau, 2024). Weld County to the east has seen similar trends in the last decade, growing from a population of 252,825 to a population of 359,442 in 2023 (U.S. Census Bureau, 2024). Each of these three counties is projected to grow in the next ten years. Weld is projected to increase the most at 36%, then Adams at 22%, and Morgan at 10% (Colorado State Demography Office,

2023). The nearest community to the Project area, the town of Hoyt, is an unincorporated community home to under 200 residents.

The local economy is based in agriculture and related industries, including a Cargill meat-packing plant that employs 2,000 people, a Leprino Foods cheese factory, a large Dairy Farmers of America milk-processing facility, and Smirks, which is one of the largest processors of seeds in the world (City of Fort Morgan, 2023).

3.15.2 Environmental Impacts: Proposed Action

3.15.2.1 Direct and Indirect Impacts

The primary socioeconomic impacts of the Proposed Action would be short-term during Project construction, which would last approximately one year and bring workers and jobs to the area. Construction would provide temporary increases in revenue in Morgan County through increased demand for lodging, food services, fuel, transportation, and general supplies. Additional personal income would also be generated by circulation and recirculation of dollars paid out by the Project as business expenditures and state and local taxes.

At the peak of construction, up to 150 personnel could be working on the Project. The management of the Project would likely be staffed from full-time employees of the Engineering Procurement & Construction Contractor, with a percentage of the remaining labor being comprised of regional or local hired labor and subcontractors (depending on availability and qualifications). There are no hotels or other lodging in the immediate Project area vicinity, so these workers would likely commute from Fort Morgan, Greeley, or the Denver Metropolitan Area. Sufficient housing and lodging options are available in Fort Morgan, Greeley, and the Denver Metropolitan Area to support the number of short-term construction workers needed for the Project.

During the O&M phase of the Project, up to 10 maintenance personnel may be expected to periodically visit the Project area at any given time. There would be no full-time onsite personnel. Similar to construction personnel, these individuals would likely commute from the Fort Morgan, Greeley, or Denver areas, as vacant housing units and hotels are scarce in the area immediately surrounding the Project.

Lease payments would provide an income source for property owners within the Project area over the life of the Project. Nearby property owners may experience property value impacts from the presence of the solar facility. A recent large-scale study of the effect of solar facilities on nearby property values found that homes within 0.5 mile of large solar facilities had an average home price reduction of 1.5 percent compared to homes 2 to 4 miles away. No statistically significant effect on property values was found for properties over 1 mile from solar facilities (Elmallah et al., 2023).

Overall, the Proposed Action would have a minor net economic benefit to the community, boosting tax revenue and income in an area where median incomes and home values lag behind those of nearby counties and the state average. There would likely be minor adverse property value impacts to property owners within 1 mile of the Project area.

3.15.2.2 Environmental Commitments

The Project would strive to hire local labor and subcontractors for construction if qualified personnel are available in the local area. Using local businesses and labor would economically benefit communities near the Project area.

3.15.3 Environmental Impacts: No Action Alternative

The No Action Alternative would result in the proposed Project not being constructed, and therefore the socioeconomic impacts associated with the Proposed Action, as described above, would not occur. The local community would not benefit from the tax revenues generated over the life of the Project, nor would there be local construction-related spending and jobs. Property values would continue to follow existing trends.

3.16 Cumulative Impact Methodology

3.16.1 Past, Present, and Reasonably Foreseeable Future Actions

Cumulative impacts are those effects that may result from the incremental impacts of an action when added to the impacts of other past, present, and reasonably foreseeable future actions. Cumulative impacts are considered regardless of the agency or person undertaking the other actions and can result from the combined effects of actions that are minor when considered individually over a period of time.

3.16.1.1 Spatial Boundary of Evaluation

The spatial boundary is the physical area that comprises the region of influence for the cumulative effects analysis. The spatial boundary evaluated for this cumulative effects analysis was defined as a 1-mile buffer from the Project area boundary (Figure 3-14); beyond that distance, environmental impacts to most resources from the Proposed Action are expected to be imperceptible. The spatial boundary is the same for all resources evaluated in detail, unless otherwise specified.

3.16.1.2 Temporal Boundary of Evaluation

A temporal boundary is the timeframe over which the cumulative analysis occurs. The temporal parameters for this cumulative effects analysis followed the anticipated lifespan of the proposed Project, beginning as early as 2024 with initial construction activities, and included energy production extending out at least 40 years, which is the minimum life expectancy of the proposed Hoyt Solar Project. For the cumulative impact analysis, effects of the Proposed Action and other past, present, and reasonably foreseeable future actions were evaluated in context with inventoried resources within the vicinity. A list of past, present, and reasonably foreseeable future activities within the defined spatial boundary and within the temporal limits are included in Table 3-9.

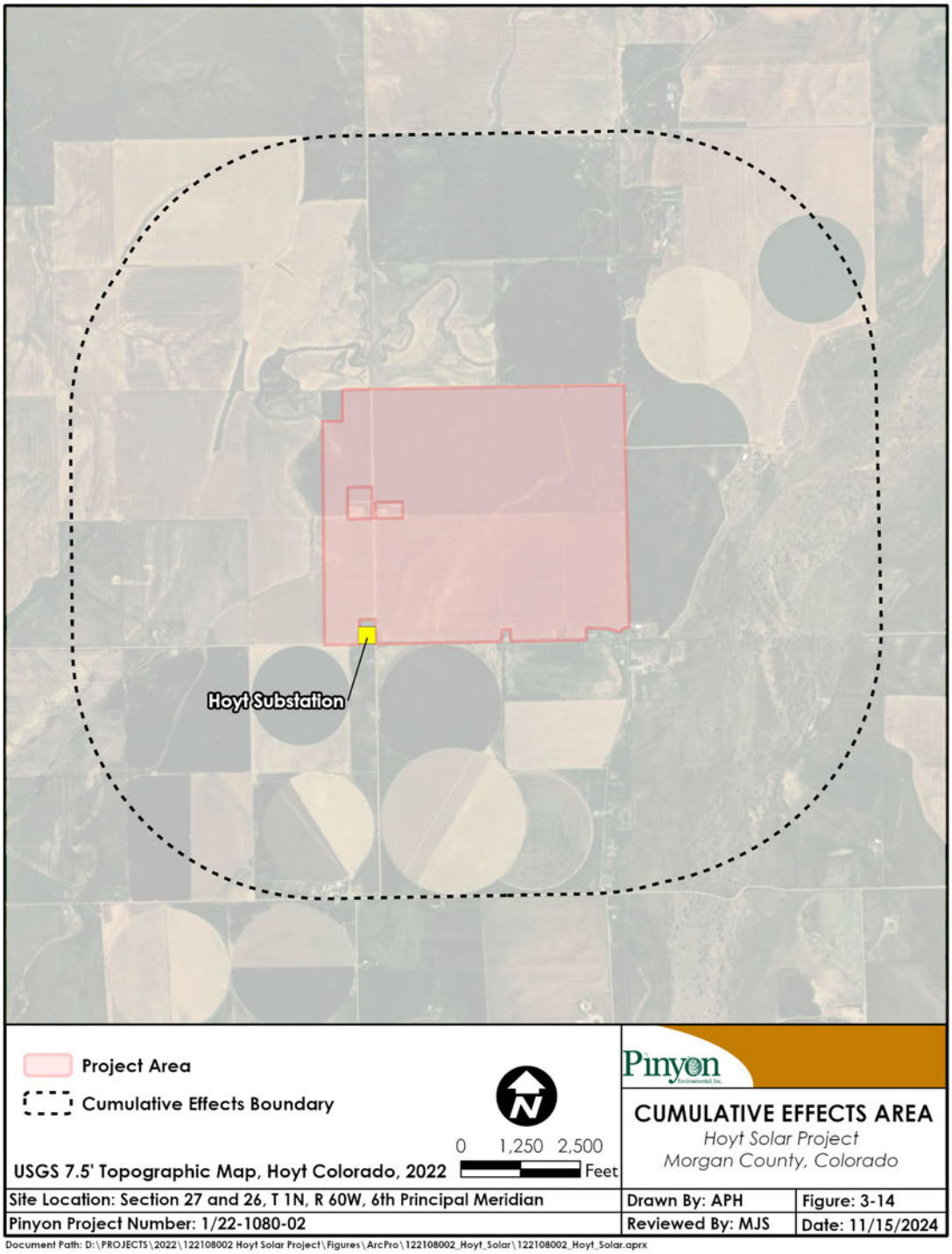

Figure 3-14. Cumulative Effects Area.

Table 3-9. Past, Present, and Reasonably Foreseeable Future Actions Considered in the Cumulative Effects Evaluation.

Name or Owner	General Description	Type of Activity	Temporal Status
Local residents	Single-family homes and ranchette development	Grading, excavations, and other ground-disturbing activities. Residential wells and septic systems.	Past, present, and future
Local landowners	Agriculture (crop cultivation and livestock grazing)	Plowing, planting, harvesting, fertilizing, watering, pest control. Agricultural wells.	Past, present, and future
B&B Auto Sales	Automotive sales facility	Automotive repairs and sales. Storage of automotive fluids, including used oil. Retail sales.	Past, present, and future
Hoyt Community Center	Various community events and social activities	Building maintenance, repairs, upgrades, and landscaping. Community gatherings, meetings, and social events.	Past, present, and future
Morgan County	County road maintenance	Grading, graveling, repairing county roadways.	Past, present, and future
WAPA Hoyt Substation	Routine substation O&M	General electric utility O&M.	Past, present, and future
WAPA transmission lines	Electric transmission line O&M	General electric utility O&M.	Past, present, and future

3.16.2 Cumulative Impacts

3.16.2.1 Cumulative Impacts – Land Use

The proposed Project and other past, present, and reasonably foreseeable future actions would result in the removal of lands available for other uses. The lands within 1 mile of the Project area are zoned Agricultural Production Zone. Some of these agricultural lands are used for other purposes, including automotive sales, rural residences, the community of Hoyt, the Hoyt Cemetery, and the Hoyt Community Center. Activities in these areas are not likely to change the overall zoning of the cumulative effects area, to which the proposed Project would contribute a land use change of 13 percent of the area from agricultural to industrial use.

3.16.2.2 Cumulative Impacts – Air Quality

In general, the extent of cumulative impacts on air quality depends on emission source characteristics, pollutant types, emission rates, and meteorological and topographic conditions. For the proposed Project, the air pollutant emissions would primarily occur during construction. The potential for Project-related air quality effects, combined with air quality effects from other nearby sources, would be short-term and minor.

3.16.2.3 Cumulative Impacts - Soils

The area of cumulative analysis for soil resources includes the soil map units associated with the Project area. Past, present, and reasonably foreseeable future projects within the region would likely add to cumulative effects

to soil resources, though impacts to soil resources are generally localized and do not result in regional cumulative effects. Soil types and conditions vary significantly over short distances, effectively limiting the geographic range of impacts on soil resources. The implementation of the proposed Project along with other past, present, and reasonably foreseeable future Projects would have minor cumulative impacts to soil resources.

3.16.2.4 Cumulative Impacts – Water Resources

The Proposed Action would not demonstrably impact surface or groundwater, and Project-related impacts would be negligible when added cumulatively to water resource impacts from other past, present, and reasonably foreseeable future actions. The implementation of a Stormwater Management Plan and SPCC plan to control runoff and oil spills, respectively, would minimize the potential for onsite impacts that could contribute cumulative impacts to waterways in the vicinity of the Project area.

3.16.2.5 Cumulative Impacts - Vegetation

The proposed Project would contribute minimally to the effects of past, present, and foreseeable future projects, resulting in additional ground disturbance and vegetation loss. Because the Project area is currently used as cropland, the Project would not contribute to loss of native vegetation cover within the cumulative effects area. Ground disturbance creates opportunities for noxious and invasive weeds. Therefore, weeds in the area would likely increase, along with the cost of their management. Impacts from noxious and invasive weeds would be minor with the establishment of vegetation cover below the solar panels and implementation of weed control measures.

3.16.2.6 Cumulative Impacts – Wildlife Resources

The proposed Project would contribute incrementally to the effects of past, present, and foreseeable future projects on area wildlife. Loss of cropland habitat and disturbance from increased human activity would prompt avoidance of the Project area and surrounding area by some larger species of wildlife. Additionally, fencing around the Project area would prevent use of the area by wildlife. Similar suitable habitats are abundant in the surrounding cumulative effects area, and as the Project would not impact any unique or sensitive wildlife habitats, the cumulative effects of this avoidance would be negligible. The potential impacts on birds and bats related to collision risk would likely be negligible as a result of existing electrical infrastructure in the vicinity.

3.16.2.7 Cumulative Impacts – Special Status Species

The Proposed Action would contribute incrementally to the effects of past, present, and foreseeable future projects on habitat loss, including some cropland habitat used by special status species. The special status species most likely to be affected cumulatively include black-tailed prairie dog, burrowing owl, and mountain plover. Habitat for these species is present in the Project area; however, the Project lacks native grasslands and existing habitat quality is low. The proposed Project would result in the loss of approximately 472 acres of low-quality habitat, or about 9 percent of the overall cumulative effects area. All of these species have large ranges and preferentially use native grassland habitats, which are not found in the Project area. Therefore, the cumulative loss of habitat in and near the Project area would not likely affect the status of these species.

3.16.2.8 Cumulative Impacts – Cultural Resources

The Proposed Action would not contribute cumulative effects to cultural resources. The Colorado SHPO determined the proposed undertaking would have no effect on historic properties. Further, the potential that previously unidentified cultural resources will be encountered in the Project area during construction is minimal

and Dervia will implement an Unanticipated Discovery Plan in the unlikely event that previously unidentified cultural resources are discovered.

3.16.2.9 Cumulative Impacts – Paleontological Resources

Due to the low likelihood of encountering fossils, and the implementation of an Unanticipated Discovery Plan, the Proposed Action would not contribute to the cumulative impacts on paleontological resources in the region.

3.16.2.10 Cumulative Impacts – Visual Resources

Implementation of the proposed Project would introduce new electrical infrastructure into the region. Visually, some features, such as the gen-tie line and Project collection substation, would have little contrast to existing conditions including existing electric utility infrastructure and therefore would not impact views in the area. The potential installation of 472 acres of new solar arrays would alter the visual resources of the area noticeably. Future additional visual impacts within the area would most likely be associated with agricultural development and residential home building; however, development of agricultural and residential lands in the area would likely occur in a piecemeal fashion, which would slowly influence the views of the region. While additional electric utility infrastructure development may occur in the vicinity of the Proposed Action in the future, it would likely blend in with the existing and proposed infrastructure, thus limiting future utilities' impacts on visual resources. When considering current visual setting and future development that potentially would influence the visual character of the area, the Proposed Action would have minor-to-moderate impacts on the visual quality in the vicinity.

3.16.2.11 Cumulative Impacts - Transportation

The proposed Project, along with identified past, present, and reasonably foreseeable future developments, would result in negligible to minor cumulative effects to traffic and transportation in the region. Construction traffic would be temporary, and permanent impacts to traffic would only increase incrementally as a result of the proposed Project.

3.16.2.12 Cumulative Impacts – Public Health and Safety

The Proposed Action is anticipated to have negligible cumulative effects on public health and safety when combined with other past, present, and future activities taking place within the cumulative effects area. This is because of the nature of the proposed construction, the Project's compliance with applicable laws and regulations, and the engineering and administrative controls that WAPA and Deriva would implement to prevent and control safety incidents. Cumulative impacts to public health and safety would occur only if impacts of the proposed Project, combined with impacts of the foreseeable future projects, occurred simultaneously and in close proximity. Due to the negligible and temporary nature of the impacts of the Proposed Action, such events are unlikely.

Proper facility design and the development and implementation of safe material handling programs for the solar facility would reduce the potential for cumulative impacts from release of hazardous materials on the environment. Each reasonably foreseeable future project in the cumulative effects area would be required to comply independently with hazardous materials regulations, depending on the circumstances of each project. With the anticipated regulatory controls in place, cumulative impacts to public health and safety would be negligible.

3.16.2.13 Cumulative Impacts - Socioeconomics

Project impacts are likely to benefit the community, bringing employment and tax revenue to the region. The proposed Project would have a very minor contribution to these cumulative socioeconomic changes since Project-related effects would be short term and primarily occur during construction. Cumulative effects on property values would be negligible considering broader economic trends affecting values in the region (development, growth, and agricultural crop prices in the broader region).

4. List of Preparers

Table 4-1. List of Preparers of the Hoyt Solar EA

Name	Agency/Company	Title
Mark Suchy	Western Area Power Administration	Project Manager
Brian Joseph	Western Area Power Administration	Regional Preservation Official
James Wood	Western Area Power Administration	Regional Environmental Manager
Allison Haraminac	Pinyon Environmental, Inc.	Project Manager
Katie Evans	Pinyon Environmental, Inc.	NEPA Project Manager
Dustin Collins	Pinyon Environmental, Inc.	Air Quality Specialist
Pam Wegener	Pinyon Environmental, Inc.	Biologist
Becky Burink	Pinyon Environmental, Inc.	Biologist
Jesse Adams	Pinyon Environmental, Inc.	Archaeologist
Megan Paliwoda	Pinyon Environmental, Inc.	NEPA Specialist

5. List of Agencies Contacted

This section identifies the agencies that were contacted during the preparation of this EA.

5.1 Federal

U.S. Army Corps of Engineers, Omaha District, Denver Regulatory Office

5.2 Tribal

Apache Tribe of Oklahoma

Northern Arapaho Tribe of the Wind River Reservation

Cheyenne and Arapaho Tribes

Comanche Nation

Northern Cheyenne Tribe of the Northern Cheyenne Indian Reservation

5.3 State

Colorado State Historic Preservation Office

5.4 Local

City of Fort Morgan Historic Preservation Board

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Appendices

Appendix A. Public Scoping Comments and WAPA Responses

Appendix A. Hoyt EA public scoping comments and WAPA responses.

Date of Comment	Contact	Organization	Comment/Concern	Comment addressed
Sept 22, 2022	Wayne Bader	N/A	Email link to EA	A link to the EA will be provided to Mr. Bader when it is publicly available.
Oct 27, 2022	Teanna Limpy	Tribal Historic Preservation Office, Northern Cheyenne Tribe	Requesting to be consulting party	The Northern Cheyenne will be included as a consulting party.
			Request copies of completed Class III Survey Report	Class III survey report was sent to Ms. Limpy on February 21, 2024.
			Send Class I file search information	Class I file search information was sent to Ms. Limpy on November 15, 2022.
Oct 2, 2022	Connie Klausner	Private Stakeholder	Impact to land value	Impacts to property values are addressed in Section 3.15.2 of the EA.
			Solar farms are ugly and damage the community landscape	Impacts to visual resources are addressed in Section 3.12.2 of the EA.
			Not productive source of energy for trade-off to land impacts	Power production and siting considerations are discussed in Section 2.2.1 of the EA. Land use impacts are discussed in Section 3.3.2 of the EA.
			Prefer landscaping with trees & shrubs rather than using fencing	Environmental commitments to minimize visual impacts are discussed in Section 3.12.2.2.
			Requests access to the solar power for campsite on personal property	Requests for private power hookups are outside the scope of the analysis.
			Email link to EA	A link to the EA will be provided to Ms. Klausner when it is publicly available.
Oct 5, 2022	Gary LaFranier	Northern Cheyenne	Request to be updated on the project	A link to the EA will be provided to Mr. LaFranier when it is publicly available.
Oct 12, 2022	John & Pamela J. Magee	Private Stakeholder	The project will severely impact property values and salability	Impacts on property values are discussed in Section 3.15.2 of the EA.
			Viewshed effects for current and prospective homeowners	Impacts to visual resources are addressed in Section 3.12.2 of the EA.
			Request offer 500’ setback with tree planting combined	Environmental commitments to minimize visual impacts are discussed in Section 3.12.2.2.

Date of Comment	Contact	Organization	Comment/Concern	Comment addressed
			Wants information regarding planted tree size and watering source. Concern is length of time for trees to provide blocked view of solar panels and survival of trees.	Environmental commitments to minimize visual impacts are discussed in Section 3.12.2.2.
			Concern for impacts to wildlife habitat, including travel corridors, habitat for ground-nesting birds, and raptor habitat.	Impacts to wildlife are discussed in Section 3.8.2 of the EA.
			Concern for impact of solar panel glare impact to bird fly-over	Impacts to birds are discussed in Section 3.8.2 of the EA.
			Not all potentially interested or impacted parties of the Hoyt community were contacted	The scoping meeting was held on the evening of September 22, 5 to 7 p.m. and advertised in the Fort Morgan Times as well as through mailings to adjacent landowners.
			Why the community deals with impact but not the benefit of the energy produced	Power production and distribution of energy from the project is discussed in the EA at Section 2.2.1; socioeconomic impacts are discussed in Section 3.15.2.
			Concern about increased noise levels during construction and increase in heavy equipment traffic.	Noise impacts are discussed in Section 3.14.2 of the EA; traffic impacts are discussed in Section 3.13.2 of the EA.
			Negative impacts to water well levels	Impacts to water resources are discussed in Section 3.6.2 of the EA.
Oct 12, 2022	Pam Magee on behalf of Nick Brownwood	Private Stakeholder	Concern for increased surface temperatures due to black color of panels. Specifically, this concern is related to dry land farming impacts.	Potential “heat island” effect is discussed in Section 3.14.2 of the EA.
			Query regarding previous study results for increasing surface temperatures, or of ongoing studies. Would like to know methodology, study area, and objectives of any previous or ongoing studies.	Potential “heat island” effect is discussed in Section 3.14.2 of the EA.
			Is there an impact to wildlife habitat from any increase of temperature due to the solar farm	Wildlife habitat impacts are discussed in Section 3.8.2 of the EA; potential “heat island” effect is discussed in Section 3.14.2 of the EA.

Date of Comment	Contact	Organization	Comment/Concern	Comment addressed
			Requests additional evening scoping meeting that includes invitation for greater level of Hoyt community involvement.	The scoping meeting was held on the evening of September 22, 5 to 7 p.m. and advertised in the Fort Morgan Times as well as through mailings to adjacent landowners.
			Requests that additional meeting include information regarding existing information (studies) regarding impacts to landowners and wildlife	The scoping meeting was held on the evening of September 22, 5 to 7 p.m. and advertised in the Fort Morgan Times as well as through mailings to adjacent landowners.

Appendix B Draft Environmental Assessment Public Comments and WAPA Responses

Appendix B. Hoyt Solar draft EA public comments and WAPA responses.

Date of Comment	Contact	Organization	Comment/Concern	Comment addressed
August 6, 2024	Connie Klausner	Private Stakeholder	I oppose the project as I believe solar farms are not aesthetically pleasing to the eye	Please refer to Section 3.12 of the EA for an analysis of visual impacts from the project.
			Solar farms are not an efficient form of energy	Thank you for your comment.
August 7, 2024	Crystal C'Bearing	Northern Arapaho Tribe of the Wind River Reservation	No historic properties in the direct and visual APE. If traditional cultural properties, rock features, or human remains are found during excavation with any new ground disturbance, we request to be contacted and a report provided.	Per Section 3.10.2.2 of the EA, Deriva will prepare an Unanticipated Discovery Plan prior to construction that will prescribe steps for the contractor to follow if previously unidentified cultural resources are discovered.
August 20, 2024	John and Pam Magee	Private Stakeholder	Our property value will be severely diminished and it will be almost impossible to obtain a fair market value for our home…why is Deriva Energy not required to compensate property owners for the loss of property value?	Please refer to Section 3.15 of the EA for an evaluation of impacts on property values. Colorado state statutes and county ordinances do not require compensation for property value impacts to properties near essential energy infrastructure.
			The solar project will destroy the views from our home to the west and southwest. Why was the option of both the required 500-foot setback of the solar panels and the planting of trees not offered? Is Deriva Energy intending to plant trees around the perimeter of the entire site?	Per Section 3.12.2.2 of the EA, Deriva Energy has agreed to apply a the 500-foot setback adjacent to residences. Deriva has also committed to working with residents in the immediate foreground of the project area to incorporate a vegetative buffer to reduce the visual impacts, with proper coordination with Morgan County. Deriva does not plan to plant trees around the entire perimeter of the solar facility.

Date of Comment	Contact	Organization	Comment/Concern	Comment addressed
			Planting trees that are only 3-4 ft. tall will take numerous years for the trees to reach even 6 -7 ft. high especially watered only for 3 years. The trees will not survive if only watered for 3 years, especially since we have been in a drought pattern for 3 years with the possibility of an additional year or more. If the trees don't survive, then what is the next course action?	Please refer to Section 3.12 of the EA for an analysis of visual impacts from the project. Visual analysis was performed without the tree buffer, and impacts were determined not significant. Additional measures, including a vegetative buffer, may be implemented to further reduce impacts in coordination with adjacent residents and Morgan County. A sentence was added to Section 3.12.2.2 of the EA to state that Deriva will water trees for a minimum of three years. After the initial three-year period, Deriva will monitor the trees to confirm whether additional watering is needed. The intent is to provide vegetated screening that will exist for the duration of the project. Over the life of the project, trees will be replaced if they die.
			If Deriva Energy drills wells, will it significantly lower the water table thus affecting the surrounding wells?	As discussed in Section 3.6.2.1 of the EA, no new wells will be drilled. Water will be provided by a watering service or sourced from an existing well and purchased from the landowner.
			Will the installation of the solar panels not have a devastating consequence for the birds that live in this area year-round and for those that migrate?	Additional discussion on impacts to birds was added to Section 3.8.2.1 of the EA.
			Hoyt Community member was completely unaware of the proposed project.	Notice was provided to the community during the scoping period for the EA via letters that were mailed to adjacent landowners and a notice that was posted in the local newspaper of record, the Fort Morgan Times. These notifications were repeated at the initiation of the 30-day public comment period for the draft EA.

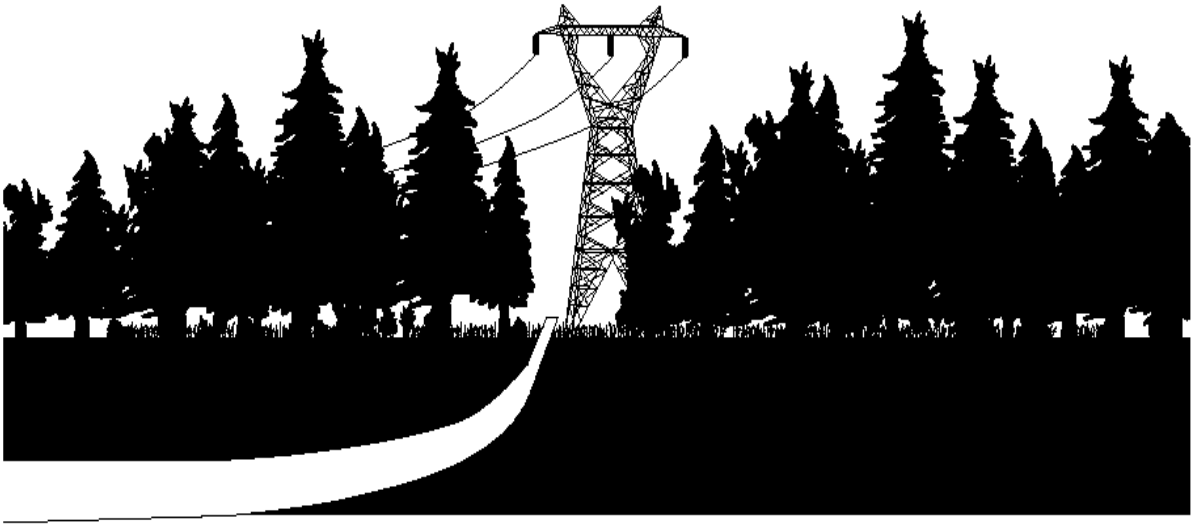
Date of Comment	Contact	Organization	Comment/Concern	Comment addressed
			Electrical power generated will not directly benefit the electrical consumers that dwell in the Hoyt area. Community members have a right to receive additional information as to where the collected energy is delivered after it reaches the substation.	As with any source of generation, once the energy generated by the project reaches the substation, it enters the electrical grid and goes where there is demand.
			The increased noise levels as well as the increase in heavy equipment traffic is a blaring offense to the peace and quiet in this area. Construction noise levels are unacceptable.	Please refer to Section 3.14.2.1, which discusses noise impacts during construction. As noted within Section 3.14.2.1, the Project would comply with the Colorado Noise Statute. Per the analysis in the EA, construction will not cause noise levels to exceed safe thresholds on adjacent properties.
September 5, 2024	Mary Tucker	Private Stakeholder	As long as the company adheres to the agreement it has to restore the property to the original agricultural state, remove all hardware, plant trees around the fence and maintain them for at least three years, I have no problem with the program.	Thank you for your comment
September 9, 2024	Theodore E. Villicana	Comanche Nation	The location of your project has been cross referenced with the Comanche Nation site files, where an indication of "No Properties" have been identified.	Thank you for your comment

Appendix C. Western Area Power Administration's Construction Standards, Standard 13 Environmental Quality Protection

Western Area
Power Administration

CONSTRUCTION STANDARDS

STANDARD 13
ENVIRONMENTAL QUALITY PROTECTION



March 2021

SAFETY
A HABIT TO LIVE BY

STANDARD 13 – ENVIRONMENTAL QUALITY PROTECTION

Table of Contents

SECTION 13.1 – REQUIRED SUBMITTALS, REPORTS AND PLANS

1. FINAL PAYMENT: For each section below, final payment will be withheld until the referenced submittal, report or plan is received by the COR.

SECTION 13.2 – CONTRACTOR FURNISHED DATA

1. RECYCLED MATERIALS QUANTITY REPORT: Submit quantities of recycled materials listed in Section 13.7, “Recycled Materials Quantities”, to the COR and WAPA’s Environmental Department prior to submittal of final invoice.

2. RECOVERED AND BIOBASED MATERIAL PRODUCTS REPORT: Provide the COR and WAPA’s Environmental Department the following information for purchases of items listed in Section 13.8, “Use of Recovered Material and Biobased Material Products”.

   (1) Quantity and cost of listed items with recovered or biobased material content and quantity and cost of listed items without recovered or biobased material content prior to submittal of final invoice.

   (2) Written justification of listed items if recovered material or biobased material products are not available: 1) competitively within a reasonable time frame; 2) meeting reasonable performance standards as defined in the Standards or Project Specifications; or 3) at a reasonable price.

3. REFRIGERANT RECEIPT: The Contractor must provide a record of all refrigerant usage, recycling or disposal on WAPA HVAC systems to the COR and WAPA’s Environmental Department. In the event refrigerant is either charged into or removed and reclaimed from a WAPA HVAC system, the Contractor must provide either a record of usage or a receipt from the Environmental Protection Agency (EPA)-certified refrigerant reclaimer including whether it was either added to or reclaimed from the equipment, the date and the amount and type of refrigerant used to the COR and WAPA’s Environmental Department prior to submittal of final invoice.

4. WASTE MATERIAL QUANTITY REPORT: Submit quantities of total project waste material disposal as listed below to the COR and WAPA’s Environmental Department prior to submittal of final invoice in accordance with Section 13.9.8, “Waste Material Quantity Report”.

   (1) Unregulated Wastes (i.e., trash): Volume in cubic yards or weight in pounds.

   (2) Hazardous or Universal Wastes: Weight in pounds.

   (3) Polychlorinated Biphenyl (PCB) Wastes: Weight in pounds.

   (4) Other regulated wastes (e.g., lead-based paint or asbestos): Weight in pounds (specify type of waste in report).

5. SPILL PREVENTION NOTIFICATION AND CLEANUP PLAN (Plan): Submit the Plan as described in Section 13.11.2, “Spill Prevention Notification and Cleanup Plan”, to the COR and WAPA’s Environmental Department for review and comment 14-days prior to start of work. Review of the plan is for the purpose of determining compliance with the specifications only and shall not relieve the Contractor of the responsibility for compliance with all Federal, State and local regulations.

6. TANKER OIL SPILL PREVENTION AND RESPONSE PLAN: Submit the Plan as described in Section 13.11.3, “Tanker Oil Spill Prevention and Response Plan”, to the COR and WAPA’s Environmental Department for review and comment 14-days prior to start of work. Review of the plan is for the purpose of determining compliance with the specifications only and shall not relieve the Contractor of the responsibility for compliance with all Federal, State and local regulations.

7. PESTICIDE USE PLAN: Submit a plan as described in Section 13.12.3, “Pesticide Use Plan”, to the COR and WAPA’s Environmental Department for review and comment 14-days prior to the date of intended pesticide application. Review of the plan is for the purpose of determining

compliance with the specifications only and shall not relieve the Contractor of the responsibility for compliance with all Federal, State and local regulations. Within seven (7)-days after application, submit a written report in accordance with Standard 2 – Sitework, Section 2.1.1_5, "Soil-Applied Herbicide".

8. TREATED WOOD UTILITY POLES AND CROSSARMS RECYCLING – CONSUMER INFORMATION SHEET RECEIPT: Submit treated wood utility poles and crossarms - consumer information sheet receipts to the COR and WAPA's Environmental Department prior to submittal of final invoice (see 13.13, "Treated Wood Utility Poles and Crossarms Recycling or Disposal").

9. PREVENTION OF AIR POLLUTION: Submit a copy of permits, if required, as described in 13.14, "Prevention of Air Pollution" to the COR and WAPA's Environmental Department 14-days prior to the start of work.

10. EMISSIONS OF COVERED INSULATING GASES (E.G., SULFUR HEXAFLUORIDE (SF_6) GAS, PERFLUOROCARBON (PFC) GAS): A receipt from the covered insulating gas supplier stating that the gas was reclaimed, the amount of covered insulating gas and the date must be submitted to the COR and WAPA's Environmental Department prior to submittal of final invoice in accordance with Section 13.14.4(3), "Certificates of Disposal and Receipts".

11. ASBESTOS LICENSES OR CERTIFICATIONS: Submit a copy of licenses, certifications, Demolition and Renovation Notifications and Permits for asbestos work as described in 13.15, "Handling and Management of Asbestos Containing Material" to the COR and WAPA's Environmental Department 14-days prior to starting work. Submit copies of certificates of disposal and/or receipts for waste to the COR and WAPA's Environmental Department prior to submittal of final invoice.

12. LEAD PAINT NOTICES: Submit a copy of lead paint notices with Contractor and recipient signatures as described in 13.16, "Material with Lead-based Paint" to the COR and WAPA's Environmental Department prior to submittal of final invoice. Submit copies of certificates of disposal and/or receipts for waste to the COR and WAPA's Environmental Department prior to submittal of final invoice.

13. WATER POLLUTION PERMITS: Submit copies of any water pollution permits as described in 13.17, "Prevention of Water Pollution" to the COR and WAPA's Environmental Department 14-days prior to start of work.

14. PCB TEST REPORT: Submit a PCB test report to the COR and WAPA's Environmental Department as described in 13.18, "Testing, Draining, Removal and Disposal of Oil-filled Electrical Equipment", prior to draining, removal or disposal of oil or oil-filled equipment that is designated for disposal.

15. OIL AND OIL-FILLED ELECTRICAL EQUIPMENT RECEIPT: Obtain and submit a receipt for oil and oil-filled equipment transported and disposed, recycled or reprocessed as described in 13.18, "Testing, Draining, Removal and Disposal of Oil-filled Electrical Equipment", to the COR and WAPA's Environmental Department prior to submittal of final invoice.

16. OSHA PCB TRAINING RECORDS: Submit employee training documentation records to the COR and WAPA's Environmental Department 14-days prior to the start of work as described in 13.19.1.

17. CLEANUP WORK MANAGEMENT PLAN: Submit a Cleanup Work Management Plan as described in 13.19, "Removal of Oil-contaminated Material" to the COR and WAPA's Environmental Department for review and comment 14-days prior to the start of work. Review of the plan is for the purpose of determining compliance with the specifications only and shall not

relieve the Contractor of the responsibility for compliance with all Federal, State and local regulations.

18. POST CLEANUP REPORT: Submit a Post-Cleanup Report as described in 13.19, “Removal of Oil-contaminated Material” to the COR and WAPA’s Environmental Department prior to submittal of final invoice.

SECTION 13.3 – ENVIRONMENTAL REQUIREMENTS

Comply with Federal, State and local environmental laws and regulations. The sections in this Standard further specify the requirements.

SECTION 13.4 – LANDSCAPE PRESERVATION

1. GENERAL: Preserve landscape features in accordance with the contract clause titled “Protection of Existing Vegetation, Structures, Equipment, Utilities and Improvements”. Exercise care to preserve the natural landscape and conduct activities to prevent any unnecessary destruction, scarring or defacing of the natural surroundings in the project vicinity. Except where clearing is required for permanent works, approved construction roads or excavation operations, vegetation must be preserved and must be protected from damage by project operations and equipment.

2. CONSTRUCTION ROADS: Location, alignment and grade of construction roads shall be subject to the COR's approval. When no longer required, surfaces of construction roads must be scarified to facilitate natural revegetation, provide for proper drainage and prevent erosion. If re-vegetation is required, use seed mixtures as recommended by Natural Resources Conservation Service or other land managing agency as appropriate.

3. CONSTRUCTION FACILITIES: Shop, office, material lay down and material and equipment storage areas and yard areas must be located and arranged in a manner to preserve trees and vegetation to the maximum practicable extent and prevent impact on sensitive riparian areas and flood plains. Storage and construction buildings, including concrete footings and slabs, must be removed from the site prior to contract completion. The area will be re-graded as required so that all surfaces drain naturally, blend with the natural terrain, and are left in a condition that will facilitate natural revegetation, provide for proper drainage and prevent erosion or transport of sediment and pollutants. If re-vegetation is required, use seed mixtures as recommended by Natural Resources Conservation Service or other land managing agency as appropriate.

SECTION 13.5 – PRESERVATION OF CULTURAL AND PALEONTOLOGICAL RESOURCES

1. GENERAL: Do not, at any time, remove, disturb or otherwise alter cultural artifacts or paleontological resources (fossils). Cultural artifacts may be of scientific or cultural importance and include, but are not limited to bones, pottery, projectile points (arrowheads), other stone or metal tools, surface features (stone circles, rock piles, etc.), glass, metal, ceramic or other historic objects, structures and buildings (including ruins). Paleontological resources can be of scientific importance and include mineralized animals and plants or trace fossils such as footprints. Both cultural and paleontological resources are protected by Federal Regulations during Federal construction projects. The Contractor must restrict all ground disturbing activities to areas reviewed/investigated and approved for WAPA by the Federal Preservation Officer (FPO) or Regional Preservation Officer (RPO), as appropriate, and as specified in accordance with Standard 1 – General Requirements, Sections 1.3.1 Rights-of-way and 1.3.2 Access to the Work and Haul Routes.

2. KNOWN CULTURAL OR PALEONTOLOGICAL SITES: The Contractor must ensure that all construction activities avoid the boundaries of specific cultural, historic or scientific sites. Following issuance of notice to proceed, WAPA will provide drawings or maps that indicate the area(s) of avoidance in relation to the project area. Prior to any construction activity, the avoidance area(s) must be marked on the ground in a manner approved by the COR and WAPA's Environmental Department in conjunction with the FPO or RPO. When avoidance is not possible, the Contractor must provide WAPA a 90-day notice of their inability to avoid the identified area(s). WAPA will consult with the appropriate authorities and the Contractor will not be permitted to work within or near the boundaries of the avoidance area(s)until the FPO or RPO approves of the work and the COR directs the Contractor to proceed. The Contractor must instruct employees and subcontractors that vehicular or equipment access within these avoidance areas is prohibited. If access is absolutely necessary, the Contractor must first obtain approval from the COR in conjunction with the FPO or RPO. WAPA will remove the markings during or following final cleanup.

3. WORKING WITH CULTURAL, PALEONTOLOGICAL OR TRIBAL MONITORS: For some project work, WAPA requires an archaeological, paleontological or tribal monitor(s) at or near cultural or paleontological site locations. The Contractor, its employees and subcontractors must work with the monitor(s) to ensure that sensitive areas are avoided. The monitor(s) must meet with the Contractor, its employees and subcontractors each morning to go over the day's work. The monitor(s) will also conduct awareness training for the Contractor, its employees and subcontractors prior to any work in the field. Untrained personnel must not be allowed in the construction area. For sensitive areas requiring a monitor(s), the Contractor may not access those areas without a monitor being present.

4. UNKNOWN CULTURAL OR PALEONTOLOGICAL SITES: On rare occasions cultural or paleontological sites, including buried human remains, may be inadvertently discovered during excavation or other earth-moving or other construction activities.

   (1) Reporting: If evidence of a cultural or paleontological site is discovered, cease all work within a 200-foot radius immediately and notify the COR, and FPO or RPO, of the location and nature of the findings. If a monitor(s) is present, the monitor(s) should also be notified. Work within that radius may not be resumed until directed to do so by the COR.

   (2) Care of Evidence: Protect the area. Do not remove, handle, alter or damage artifacts fossils or other objects uncovered during construction activities.

5. SPECIAL CONSIDERATIONS: Refer to Division 13 of the Project Specifications for site-specific requirements including, but not limited to, known and unknown cultural or paleontological resources and the treatment of inadvertently discovered human remains. Disturbance of human remains is covered in most states by statutes that generally preempt Federal regulations. Those requirements are described in the Division 13 specifications.

SECTION 13.6 – NOXIOUS WEED CONTROL

Comply with Federal, State and local noxious weed control regulations. At Contractor's expense, obtain required permits and conduct required notifications. Provide a "clean vehicle policy" while entering and leaving construction areas to prevent transport of noxious weed plants and/or seed. Transport only construction vehicles that are free of mud and vegetation debris to staging areas and the project right-of-way. All seed mixes and mulch used for reclamation activities will be certified weed-free.

SECTION 13.7 – RECYCLED MATERIALS QUANTITIES

1. GENERAL: All materials generated from the project that can be recycled, must be recycled. Record quantities of material by category that is salvaged, recycled, reused or reprocessed, including, but not limited to:

   (1) Transformers, Breakers: Weight without oil in pounds or metric tons.

   (2) Scrap Metals: Weight in pounds or metric tons. Examples include, but are not limited to:

      1) Aluminum Conductor – Steel Reinforced (ACSR).
      2) Stainless Steel.
      3) Copper.
      4) Iron/Steel.
      5) Aluminum.
      6) Lead.
      7) Zinc.
      8) Other Metals.

   (3) Precious Metals (e.g., Silver, Gold, Platinum): Weight in pounds or metric tons.

   (4) Oil: Gallons (separate by type - less than 2-parts per million (ppm) PCB, 2- to 50-ppm PCB, and 50 or greater ppm PCB).

   (5) Gravel, Asphalt or Concrete: Weight in pounds or metric tons.

   (6) Batteries: Weight in pounds or metric tons.

   (7) Treated Wood Utility Poles and Crossarms: Weight in pounds or metric tons.

   (8) Wood Construction Material: Weight in pounds or metric tons.

   (9) Cardboard: Weight in pounds or metric tons.

   (10) Porcelain/Ceramic Insulators: Weight in pounds or metric tons.

   (11) Glass: Weight in pounds or metric tons.

   (12) Fluorescent Bulbs: Weight in pounds or metric tons.

   (13) Ballasts: Weight in pounds or metric tons.

   (14) Mercury-Containing Equipment (MCE): Weight in pounds or metric tons.

   (15) Antifreeze and Freon: Weight in pounds or metric tons.

   (16) Tires: Weight in pounds or metric tons.

   (17) Plastic: Weight in pounds or metric tons.

   (18) Solvent: Weight in pounds or metric tons.

   (19) Construction and Demolition (C&D) Debris: Weight in pounds or metric tons.

2. RECYCLED MATERIAL QUANTITY REPORT: Submit quantities (pounds, metric tons, gallons) of all recycled material by category to the COR and WAPA's Environmental Department within 30-days of recycling and prior to submittal of final invoice.

SECTION 13.8 – USE OF RECOVERED MATERIAL AND BIOBASED MATERIAL PRODUCTS

1. RECOVERED MATERIAL PRODUCTS: If the products listed below or other products listed at https://www.epa.gov/smm/comprehensive-procurement-guideline-cpg-program are obtained as part of this project, purchase the items with the highest recovered material content possible unless recovered material products are not available: 1) competitively within a reasonable time frame; 2) meeting reasonable performance standards as defined in the Standards or Project Specifications; or 3) at a reasonable price.

   Examples include, but are not limited to:

   (1) Building Insulation Products.

   (2) Carpet.

   (3) Carpet cushion.

   (4) Cement and Concrete Containing; coal fly ash, ground granulated blast furnace slag, cenospheres or silica fume.

   (5) Consolidated and reprocessed latex paint.

   (6) Floor Tiles.

   (7) Flowable fill.

   (8) Laminated Paperboard.

   (9) Modular threshold ramps.

   (10) Nonpressure pipe.

   (11) Patio Blocks.

   (12) Railroad grade crossing surfaces.

   (13) Roofing materials.

   (14) Shower and restroom dividers/partitions.

   (15) Signage.

   (16) Structural Fiberboard.

2. BIOBASED MATERIAL PRODUCTS: If the products listed at https://www.biopreferred.gov/BioPreferred/faces/pages/ProductCategories.xhtml are obtained as part of this project, purchase the items with the highest biobased content possible and no less than the percent indicated for each product unless biobased material products are not available: 1) competitively within a reasonable time frame, 2) meeting reasonable performance standards as defined in the Standards or Project Specifications, or 3) at a reasonable price.

   NOTE: All station service and pole mounted transformers will be bio-based oil. WAPA large transformers will be evaluated on a best value basis using life cycle cost analysis.

3. RECOVERED MATERIAL AND BIOBASED MATERIAL PRODUCTS REPORT: Provide the COR and WAPA's Environmental Department the following information for purchases of those items listed above:

   Quantity and cost of listed items with recovered or biobased material content and quantity and cost of listed items without recovered or biobased material content prior to submittal of final invoice.

   Written justification of listed items if recovered material or biobased material products are not available: 1) competitively within a reasonable time frame; 2) meeting reasonable performance standards as defined in the Standards or Project Specifications; or 3) at a reasonable price.

SECTION 13.9 – DISPOSAL OF WASTE MATERIAL

1. GENERAL: Dispose or recycle waste material in accordance with applicable Federal, State and local regulations and ordinances. In addition to the requirements of the Contract Clause "Cleaning Up", remove all waste material from the construction site. No waste will be left on WAPA property, right-of-way or easement. Burning or burying of waste material is not permitted.

2. HAZARDOUS, UNIVERSAL AND NON-HAZARDOUS WASTES: Manage and dispose hazardous, universal and non-hazardous wastes in accordance with local, State and Federal regulations.

3. USED OIL: Used oil generated from the Contractor activities must be managed and disposed in accordance with used oil regulations.

4. RECYCLABLE MATERIAL: Reduce wastes, including excess WAPA material, by recycling, reusing or reprocessing. Examples of recycling, reusing or reprocessing includes, but is not limited to, reprocessing of solvents; recycling cardboard; and salvaging scrap metals.

5. REFRIGERANTS AND RECEIPTS: Refrigerants from air conditioners, water coolers, refrigerators, ice machines and vehicles must be reclaimed with certified equipment operated by certified technicians if the item is to be disposed. Refrigerants must be reclaimed and not vented to the atmosphere. A receipt from the reclaimer stating that the refrigerant was reclaimed, the amount and type of refrigerant and the date must be submitted to the COR and WAPA's Environmental Department prior to submittal of final invoice.

6. HALONS: Equipment containing halons that must be tested, maintained, serviced, repaired or disposed must be handled according to EPA requirements and by technicians trained according to those requirements.

7. SULFUR HEXAFLUORIDE (SF_6)/PERFLUOROCARBONS: All covered insulating gases (e.g., SF_6 gas and other PFCs) must be reclaimed and must not be vented to the atmosphere. See Section 13.14.4(3). After use, all covered insulating gas cylinders must be returned to the manufacturer.

8. WASTE MATERIAL QUANTITY REPORT: Submit quantities and types of all materials disposed of as part of the project to the COR and WAPA's Environmental Department prior to submittal of final invoice.

    (1) Non-Hazardous Municipal Solid Waste (MSW) (i.e., trash): Description of waste and volume in cubic yards or weight in pounds.

    (2) Hazardous Wastes: Hazardous waste description, hazardous waste code and weight in pounds or volume in gallons.

    (3) Universal Wastes: Universal Waste category and weight in pounds.

    (4) PCB Wastes: Weight in pounds.

    (5) Industrial Wastes: Description of waste and weight in pounds.

    (6) Other regulated wastes (e.g., lead-based paint or asbestos): Weight in pounds (specify type of waste in report).

SECTION 13.10 – CONTRACTOR'S LIABILITY FOR REGULATED MATERIAL INCIDENTS

1. GENERAL: The Contractor is solely liable for all expenses related to spills, mishandling or incidents of regulated material attributable to his actions or the actions of his subcontractors. This includes all response, investigation, cleanup, disposal, permitting, reporting and requirements from applicable environmental regulation agencies.

2. SUPERVISION: The actions of the Contractor employees and subcontractors must be properly managed at all times on WAPA property or while transporting WAPA's (or previously owned by WAPA) regulated material and equipment.

SECTION 13.11 – POLLUTANT SPILL PREVENTION, NOTIFICATION AND CLEANUP

1. GENERAL: Provide measures to prevent spills of pollutants and respond appropriately if a spill occurs. A pollutant includes any hazardous or non-hazardous substance that when spilled, will contaminate soil, surface water or groundwater. This includes any solvent, fuel, oil, paint, pesticide, engine coolants and similar substances.

2. SPILL PREVENTION NOTIFICATION AND CLEANUP PLAN: Provide the Plan to the COR and WAPA's Environmental Department for review and comment 14-days prior to start of work. Review of the Plan is for the purpose of determining compliance with the specifications only and shall not relieve the Contractor of the responsibility for compliance with all Federal, State and local regulations. Include the following in the Plan:

   (1) Spill Prevention Measures: Describe the work practices or precautions that will be used at the jobsite to prevent spills. These may include engineered or manufactured techniques such as installation of berms around fuel and oil tanks; storage of fuels, paints and other substances in spill proof containers; and management techniques such as requiring workers to handle material in certain ways.

   (2) Notification: Most States and the EPA require by regulation that anyone who spills certain types of pollutants in certain quantities notify them of the spill within a specific time period. Some of these agencies require written follow up reports and cleanup reports. Include in the Plan the types of spills for which notification would be made, the agencies notified, the information the agency requires during the notification and the telephone numbers for notification.

   (3) Employee Awareness Training: Describe employee awareness training procedures that will be implemented to ensure personnel are knowledgeable about the contents of the Plan and the need for notification.

   (4) Commitment of Manpower: Equipment and Material. Identify the arrangements made to respond to spills, including the commitment of manpower, equipment and material.

   (5) If applicable, address all requirements of 40 C.F.R. Part 112 pertaining to Spill Prevention, Control and Countermeasures (SPCC) Plans.

3. TANKER OIL SPILL PREVENTION AND RESPONSE PLAN: Provide a Tanker Oil Spill Prevention and Response Plan as required by the Department of Transportation if oil tankers with volume of 3,500-gallons or more are used as part of the project. Submit the Tanker Oil Spill Prevention and Response Plan to the COR and WAPA's Environmental Department for review and comment 14-days prior to start of work. Review of the Plan is for the purpose of determining compliance with the specifications only and shall not relieve the Contractor of the responsibility for compliance with all Federal, State and local regulations.

SECTION 13.12 – PESTICIDES

1. GENERAL: The term “pesticide” includes herbicides, insecticides, rodenticides and fungicides. Pesticides must only be used in accordance with their labeling and applied by appropriately certified applicators.

2. EPA REGISTRATION: Use only EPA-registered pesticides that are approved for the intended use and location. Follow all applicable label directions.

3. PESTICIDE USE PROPOSAL: Provide a pesticide use proposal that contains: 1) pesticide(s) proposed (include mixtures and surfactants), 2) treatment site, 3) intended rate of application, 4) a copy of labels and Safety Data Sheets and 5) a copy of required applicator certifications. Submit the pesticide use proposal to the COR and WAPA’s Environmental Department for review and comment 14-days prior to the date of intended application. Review of the Plan is for the purpose of determining compliance with the specifications only and shall not relieve the Contractor of the responsibility for compliance with all Federal, State and local regulations. Within seven (7)-days after application, submit a written final report to the COR and WAPA’s Environmental Department, including the pesticide applicators report, in accordance with Standard 2 – Sitework, Section 2.1.1 5. “Soil-Applied Herbicide, (4) Final Report”.

SECTION 13.13 – TREATED WOOD UTILITY POLES AND CROSSARMS RECYCLING OR DISPOSAL

Whenever practicable, treated wood utility poles and crossarms removed during the project must be recycled or transferred to the public for some uses. Treated wood utility poles and crossarms transferred to a recycler, landfill or the public must be accompanied by a written consumer information sheet for treated wood as provided by WAPA. Obtain a receipt, part of the consumer information sheet, from the recipient indicating that they have received, read and understand the consumer information sheet. Treated wood products transferred to right-of-way landowners must be moved off the right-of-way. Treated wood product scrap, poles and crossarms that cannot be donated or reused must be properly disposed in a landfill that accepts treated wood and has signed WAPA's consumer information sheet receipt. Submit treated wood utility poles and crossarms consumer information receipts to the COR and WAPA's Environmental Department prior to submittal of final invoice.

SECTION 13.14 – PREVENTION OF AIR POLLUTION

1. GENERAL: Ensure that construction activities and the operation of equipment are undertaken to reduce the emission of air pollutants. Submit a copy of permits for construction activities, if required (e.g., "non-attainment" areas, State implementation plans or Class I air-sheds), from Federal, State or local agencies to the COR and WAPA's Environmental Department 14-days prior to the start of work. The Contractor must fulfill the conditions under any applicable locally prepared Environmental Impact Statements (EISs) or Environmental Assessments (EAs) conducted for the project under the National Environmental Protection Act (NEPA).

2. MACHINERY AIR EMISSIONS: The Contractor and subcontractor machinery must have and must use the air emissions control devices required by Federal, State or local Regulation or ordinance.

3. DUST ABATEMENT: Dust must be controlled. Oil must not be used as a dust suppressant. Dust suppressants must be approved by the COR and WAPA's Environmental Department prior to use.

4. SULFUR HEXAFLUORIDE (SF_6)/PERFLUOROCARBONS (PFCs) EMISSIONS:

   (1) General: WAPA complies with State, Federal and local regulations regarding Mandatory Greenhouse Gas Reporting 40 C.F.R. Part 98. The Contractor must provide the information required by this section to the COR and WAPA's Environmental Department as described. Additional requirements may be required for projects in the State of California. The Contractor must meet the additional requirements and provide any additional information as required by the State of California to the COR and WAPA's Environmental Department as described in Title 17, Division 3, Chapter 1, Subchapter 10, Article 4, Subarticle 3.1 (17 CCR § 95350 – 95359.1).

   (2) The Contractor must record quantities of all covered insulating gases (e.g., SF_6 gas and other PFCs), including:

      1) Nameplate capacity in pounds of the covered insulating gas containing equipment.

      2) Record pounds of the covered insulating gas stored in containers, before transferring into energized equipment. Record the serial numbers of the cylinders/containers from which the gas is transferred.

      3) Record pounds of the covered insulating gas left in containers, after transferring into energized equipment. Record the serial numbers of the cylinders/containers from which the gas is transferred.

      4) Pounds of covered insulating gas purchased from equipment manufacturers or distributors. Record the serial numbers of the purchased cylinders/containers.

      5) Pounds of covered insulating gas returned to suppliers. Record the serial numbers of the returned cylinders/containers.

      6) Scales used to weigh cylinders must be accurate to within ±2-pounds and must have current calibration sticker.

   (3) Contractor Field Quality Testing and Covered Insulating Gas Handling:

      1) The Contractor must test all functions to verify correct operation and conduct a leak test. No gas leakage of covered insulating gases must be allowed from any equipment or storage containers.

2) Atmospheric venting of covered insulating gas is not allowed.

3) The Contractor must use cylinders with a current certified hydrostatic test certificate.

4) The Contractor must remove all empty covered insulating gas cylinders and return to supplier.

(4) Certificates of Disposal and Receipts for Covered Insulating Gas:

1) The Contractor can use WAPA's Reporting Form for reporting quantities listed above.

2) The Contractor must return all used covered insulating gas cylinders to supplier and provide receipts from the supplier.

3) The Contractor must submit all covered insulating gas Reporting Forms and copies of receipts to the COR and to WAPA's Environmental Department prior to submittal of final invoice.

5. PROTECTION OF STRATOSPHERIC OZONE: The Contractor must comply with all State, Federal and local regulations regarding ozone depleting substances and the Protection of Stratospheric Ozone, including, but not limited to 40 C.F.R. Part 82. Contractors performing work on HVAC systems must be trained and certified according to the regulations, and releases of ozone depleting substances to the atmosphere must be prevented. The Contractor must provide reclaimed refrigerant receipts to the COR and WAPA's Environmental Department in accordance with section 13.2.3 of this document.

SECTION 13.15 – HANDLING AND MANAGEMENT OF ASBESTOS CONTAINING MATERIAL

1. GENERAL: Obtain the appropriate Federal, State, Tribal or local licenses or certifications prior to disturbing any regulated asbestos-containing material. If a building or portion of a building will be demolished or renovated, obtain an Asbestos Notice of and Permit for Demolition and Renovation from the State or Tribal Department of Environmental Quality, Division of Air Quality (or equivalent). The building(s) must be inspected by a State-Certified or Tribal accepted Asbestos Building Inspector. The inspector must certify the presence and condition of asbestos, or non-presence of asbestos, on site as directed on the State or Tribal Demolition and Renovation Notice/Permit. The inspections must be performed and notifications must be submitted whether asbestos is present or not. Submit a copy of licenses, certifications, Demolition and Renovation Notifications and Permits for asbestos work to the COR and WAPA's Environmental Department 14- days prior to work. Ensure: 1) worker and public safety requirements are fully implemented and 2) proper handling, transportation and disposal of asbestos containing material.

2. TRANSPORTATION OF ASBESTOS WASTE: Comply with Department of Transportation, EPA, and State and local requirements when transporting asbestos wastes.

3. CERTIFICATES OF DISPOSAL AND RECEIPTS: Obtain certificates of disposal for waste if the waste is a hazardous waste or receipts from a landfill approved to accept asbestos if the waste is a non-hazardous waste. Submit copies to the COR and WAPA's Environmental Department prior to submittal of final invoice.

SECTION 13.16 – MATERIAL WITH LEAD-BASED PAINT

1. GENERAL: Comply with all applicable Federal, State and local regulations concerning work with lead-based paint, disposal of material painted with lead-based paint and management of these materials. OSHA and General Industry Standards apply to worker safety and right-to-know issues. Federal EPA and State agencies regulate waste disposal and air quality issues.

2. TRANSFER OF PROPERTY: If lead-based paint containing equipment or material is to be given away or sold for reuse, scrap or reclaiming, the Contractor must provide a written notice to the recipient of the material stating that the material contains lead-based paint and the Hazardous Waste regulations may apply to the waste or the paint in some circumstances. The new owner must also be notified that they may be responsible for compliance with OSHA requirements if the material is to be cut, sanded, abraded or stripped of paint. Submit a copy of lead paint notices with the Contractor and recipient signatures to the COR and WAPA's Environmental Department prior to submittal of final invoice.

3. CERTIFICATES OF DISPOSAL AND RECEIPTS: Obtain certificates of disposal for waste if the waste is a hazardous waste or receipts from a landfill if the waste is a non-hazardous waste. Submit copies to the COR and WAPA's Environmental Department prior to submittal of final invoice.

SECTION 13.17 – PREVENTION OF WATER POLLUTION

1. GENERAL: Ensure that surface and groundwater is protected from pollution caused by construction activities and comply with applicable regulations and requirements. Ensure that streams, waterways and other courses are not obstructed or impaired unless the appropriate Federal, State or local permits have been obtained.

2. PERMITS: The Contractor must ensure that:

   (1) A National Pollutant Discharge Elimination System (NPDES) permit is obtained from the US EPA or State as appropriate if the disturbed construction area equals 1-acre or more. The Contractor is responsible for preparation and implementation of the associated Storm Water Pollution Prevention Plan (SWPPP). Disturbed areas include staging, parking, fueling, stockpiling and any other construction related activities. Refer to https://www.epa.gov/npdes/npdes-stormwater-program for directions and forms.

   (2) A dewatering permit is obtained from the appropriate agency if required for construction dewatering activities.

   (3) Copies of permits and plans, approved by the appropriate regulating agencies, are submitted to the COR and WAPA's Environmental Department 14-days prior to start of work.

3. EXCAVATED MATERIAL AND OTHER CONTAMINANT SOURCES: Control runoff from excavated areas and piles of excavated material, construction material or wastes (to include truck washing and concrete wastes) and chemical products such as oil, grease, solvents, fuels, pesticides and pole treatment compounds. Excavated material or other construction material must not be stockpiled or deposited near or on streambanks, lake shorelines, ditches, irrigation canals or other areas where run-off could impact the environment.

4. MANAGEMENT OF WASTE CONCRETE OR WASHING OF CONCRETE TRUCKS: Do not permit the washing of concrete trucks or disposal of excess concrete in any ditch, canal, stream or other surface water. Concrete wastes must be disposed in accordance with all Federal, State and local regulations. Concrete wastes must not be disposed of on any WAPA property, right-of-way easement or on any streets, roads or property without the owner's consent.

5. STREAM CROSSINGS: Crossing of any stream or other waterway must be done in compliance with Federal, State and local regulations. Crossing of some waterways may be prohibited by landowners, Federal or State agencies or require permits.

SECTION 13.18 – TESTING, DRAINING, REMOVAL AND DISPOSAL OF OIL-FILLED ELECTRICAL EQUIPMENT

1. SAMPLING AND TESTING OF INSULATING OIL FOR PCB CONTENT: Sample and analyze the oil of electrical equipment (which includes storage tanks) for PCB's. Use analytical methods approved by EPA and applicable State regulations. Decontaminate sampling equipment according to documented good laboratory practices (these can be Contractor developed or EPA standards). Use only laboratories approved by WAPA. The COR will furnish a list of approved laboratories.

2. PCB TEST REPORT: Provide PCB test reports that contain the information below for disposing of oil-filled electrical equipment. Submit the PCB test report for COR and WAPA's Environmental Department approval prior to draining, removal or disposal of oil or oil-filled equipment that is designated for disposal.

   (1) Name and address of the laboratory.

   (2) Copies of Chain of Custody Form(s).

   (3) Description of the electrical equipment (e.g. transformer, breaker).

   (4) Serial number for the electrical equipment.

   (5) Date sampled.

   (6) Date tested.

   (7) PCB contents in parts per million (ppm) by Aroclor type.

   (8) Unique identification number of container into which the oil was drained (i.e., number of drum, tank, tanker, etc.)

3. OIL CONTAINING PCB: Comply with the Federal regulations pertaining to PCBs found at Title 40, Part 761 of the U.S. Code of Federal Regulations (40 C.F.R. Part 761).

4. REMOVAL AND DISPOSAL OF INSULATING OIL AND OIL-FILLED ELECTRICAL EQUIPMENT: Once the PCB content of the oil has been identified from laboratory results, the oil must be transported and disposed, recycled or reprocessed according to 40 C.F.R. Part 761 (if applicable), Resource Conservation and Recovery Act (RCRA) "used oil" and other applicable regulations. Used oil may be transported only by EPA-registered used oil transporters. The oil must be stored in containers that are labeled "Used Oil." Use only transporters and disposal sites approved by WAPA.

5. OIL AND OIL-FILLED ELECTRICAL EQUIPMENT RECEIPT: Obtain and submit a receipt for oil and oil-filled equipment transported and disposed, recycled or reprocessed to the COR and WAPA's Environmental Department prior to submittal of final invoice.

SECTION 13.19 – REMOVAL OF OIL-CONTAMINATED MATERIAL

1. GENERAL: Removing oil-contaminated material includes excavating, stockpiling, testing, transporting, cleaning and disposing of these materials. Personnel working with PCBs must be trained in accordance with OSHA requirements. Submit employee training documentation records to the COR and WAPA's Environmental Department 14-days prior to the start of work.

2. CLEANUP WORK MANAGEMENT PLAN: Provide a Cleanup Work Management Plan that has been approved by applicable Federal, State or local environmental regulation agencies. Submit the plan to the COR and WAPA's Environmental Department for review and comment 14-days prior to the start of work. Review of the Plan is for the purpose of determining compliance with the specifications only and shall not relieve the Contractor of the responsibility for compliance with all Federal, State and local regulations. The plan must address onsite excavation of contaminated soil and debris and include the following:

   (1) Identification of contaminants and areas to be excavated.
   (2) Method of excavation.
   (3) Level of personnel/subcontractor training.
   (4) Safety and health provisions.
   (5) Sampling requirements including quality control, laboratory to be used.
   (6) Management of excavated soils and debris.
   (7) Decontamination procedures for personnel and equipment.
   (8) Disposal methods, including transportation to disposal.

3. EXCAVATION AND CLEANUP: Comply with the requirements of Title 40, Part 761 of the U.S. Code of Federal Regulations (40 C.F.R. Part 761).

4. TEMPORARY STOCKPILING: Excavated material, stockpiled onsite during construction, must be stored on plastic with appropriate thickness and covered to prevent wind and rain erosion at a location designated by the COR.

5. SAMPLING AND TESTING: Sample contaminated debris and areas of excavation to ensure that contamination is removed. Use personnel with experience in sampling and, in particular, with experience in PCB cleanup if PCBs are involved. Use analytical methods approved by EPA and applicable State regulations.

6. TRANSPORTATION AND DISPOSAL OF CONTAMINATED MATERIAL: The Contractor must be responsible and liable for the proper loading, transportation and disposal of contaminated material according to Federal, State and local requirements. Use only transporters and disposal sites approved by WAPA.

7. POST CLEANUP REPORT: Provide a Post-Cleanup Report that describes the cleanup of contaminated soils and debris. Submit the report to the COR and WAPA's Environmental Department prior to submittal of final invoice. The report must contain the following information:

   (1) Site map showing the areas cleaned.

   (2) Description of the operations involved in excavating, storing, sampling, testing and disposal.

   (3) Sampling and analysis results including 1) Name and address of the laboratory, 2) sample locations, 3) sample dates, 4) analysis dates, 5) contents of contaminant (e.g. PCB or total petroleum hydrocarbons) in ppm.

   (4) Certification by the Contractor that the cleanup requirements were met.

(5) Copies of any manifests, bills of lading and disposal certificates.

(6) Copies of correspondence with regulatory agencies that support completion of the cleanup.

SECTION 13.20 – CONSERVATION OF BIOLOGICAL RESOURCES

1. GENERAL: The Endangered Species Act of 1973 prohibits "take" of threatened or endangered animal and plant species, as well as destruction of designated critical habitat. "Take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect or attempt to engage in any such conduct with a protected animal or plant or any part thereof, or attempt to do any of those things without a permit from the U.S. Fish and Wildlife Service. Federal law also prohibits "take" of birds or collection of bird parts or nests protected by the Migratory Bird Treaty Act or the Bald and Golden Eagle Protection Act. Contractor and subcontractor personnel will take precautions to avoid harming animals and plants, restricting all ground disturbing activities to areas specified in accordance with Standard 1 – General Requirements, Sections 1.3.1 Rights-Of-Way and 1.3.2 Access to the Work and Haul Routes.

2. MIGRATORY BIRDS: The Migratory Bird Treaty Act of 1918 protects migratory bird species, their nests and eggs from injury or death. Impacts to migratory bird nests will be avoided during nesting season(s) identified in Division 13 of the Project Specifications. If construction activities occur during nesting, WAPA will survey the construction area for active migratory bird nests prior to work and will establish appropriate buffers around any nests that may potentially be disturbed. If work must be conducted within these buffers, the COR may choose to delay work until the nest is no longer active or utilize a provision within WAPA's Special Purpose Utility permit.

3. BALD AND GOLDEN EAGLES: The Bald and Golden Eagle Protection Act of 1940 protects bald and golden eagles from take and collection. In addition, eagle nests are protected by specific buffer distances that will be identified in Division 13 of the Project Specifications. Unlike the Migratory Bird Treaty Act, the Bald and Golden Eagle Protection Act even protects nests of eagles while they are inactive.

4. KNOWN OCCURRENCE OF PROTECTED SPECIES OR HABITAT: Following issuance of the Notice to Proceed and prior to the start of construction, WAPA will provide information on presence and distribution, as well as avoidance and minimization information, for relevant protected species and habitat. Non-trained personnel will not be allowed in the construction area. Marked avoidance areas will be maintained throughout the duration of work until the COR approves their removal. If access within an avoidance area is absolutely necessary, Contractor and subcontractor personnel must first obtain written permission from the COR before any work is performed within the avoidance area. NOTE: a WAPA and other Federal or State government or tribal agency biologist may be required to accompany Contractor or subcontractor personnel.

5. UNKNOWN OCCURRENCE OF PROTECTED SPECIES OR HABITAT: On rare occasion, an unknown protected species or habitat may be discovered during the project. When evidence of a protected species or habitat is discovered within the project area, Contractor and subcontractor personnel will immediately notify the COR and provide the location and nature of the findings. The Contractor and subcontractor personnel will immediately stop all activity within 100-feet of the protected species or habitat and will not re-start activity until directed to do so by the COR.

6. SPECIAL CONSIDERATIONS: Refer to Division 13 of the Project Specifications for site-specific requirements including, but not limited to, protected species, habitats, migratory birds and eagles.