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Ada County, Idaho, Conditional Use Permit Application for the Powers Butte Energy Center

FEBRUARY 2024

PREPARED FOR

Powers Butte Energy Center, LLC

PREPARED BY

SWCA Environmental Consultants

ADA COUNTY, IDAHO, CONDITIONAL USE PERMIT APPLICATION FOR THE POWERS BUTTE ENERGY CENTER

Submitted by

Powers Butte Energy Center, LLC
422 Admiral Boulevard
Kansas City, Missouri 64106

Submitted to

Ada County Development Services Department
200 West Front Street
Boise, Idaho 83702

February 2024

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1 INTRODUCTION AND SUMMARY OF PROPOSED USE

Savion, LLC (Savion), doing business as Powers Butte Energy Center, LLC (Applicant), is pleased to file this application for a conditional use permit (CUP) in compliance with Ada County Code of Ordinances [ACC] 8-5B; Master Site Plan (ACC 8-4E), and Variance (ACC 8-7-4) for construction and operation of a utility-scale solar photovoltaic (PV) facility on 1,356 acres in Ada County, approximately 1.5 miles southeast of Bowmont, Idaho (Figure 1). The Powers Butte Energy Center (Project) would consist of an up to 250-megawatt (MW) solar PV generation array, up to 200-MW battery energy storage system (BESS), and ancillary facilities on 2,385 acres of privately owned lands in both Ada County and Canyon County, Idaho; the Project straddles the Ada County and Canyon County line (Project area).

The Project would include a utility-scale solar PV generation array consisting of panels, racking, and a collection system (direct current [DC] collection and alternating current [AC] collection), as well as access roads in the section of the Project area that is in Ada County (the Ada County Permit Boundary). The BESS, Project substation, and operation and maintenance (O&M) facilities are anticipated to be sited in Canyon County and will be described in detail in the CUP application for that county. The Applicant intends to continue agricultural operations in the Project area, a practice known as *agrivoltaics*. The term *agrivoltaics* (also known as *dual-use solar* or *agrisolar*) refers to using land for both agriculture and solar PV energy generation to pair generating energy with agricultural practices; for example, providing space for crops, grazing, and/or pollinator habitat (U.S. Department of Agriculture 2023).

This CUP application is organized to meet the ACC references listed above. Section 1 introduces the Project and documents the Ada County Permit Boundary conformance with Ada County permitted uses and standards. Section 2 summarizes the Ada County Permit Boundary proposed use and existing use. Section 3 describes the proposed use in detail. Section 4 identifies Master Site Plan Standards per ACC 8-4E-4 and the request for a variance. Section 5 describes the pre-hearing requirements. The following exhibits supplement this application and include additional information as required by Ada County for the proposed Powers Butte Energy Center Ada County Permit Boundary:

- Exhibit A. Master Application Form
- Exhibit B. Conditional Use Checklist: Solar Voltaic
- Exhibit C. Master Site Plan Checklist
- Exhibit D. Site Plan Map
- Exhibit E. Variance Checklist
- Exhibit F. Neighborhood Certification
- Exhibit G. Property Deeds for the Ada County Permit Boundary
- Exhibit H. Pre-application Conference Notes
- Exhibit I. Letter from Idaho Fish and Game Department
- Exhibit J. Legal Description of the Ada County Permit Boundary
- Exhibit K. List of Parcels in the Ada County Permit Boundary
- Exhibit L. Project Area Aquatic Resources Delineation Report
- Exhibit M. Project Area Hydrology and Flood Inundation Study
- Exhibit N. Ada County Visual Simulations

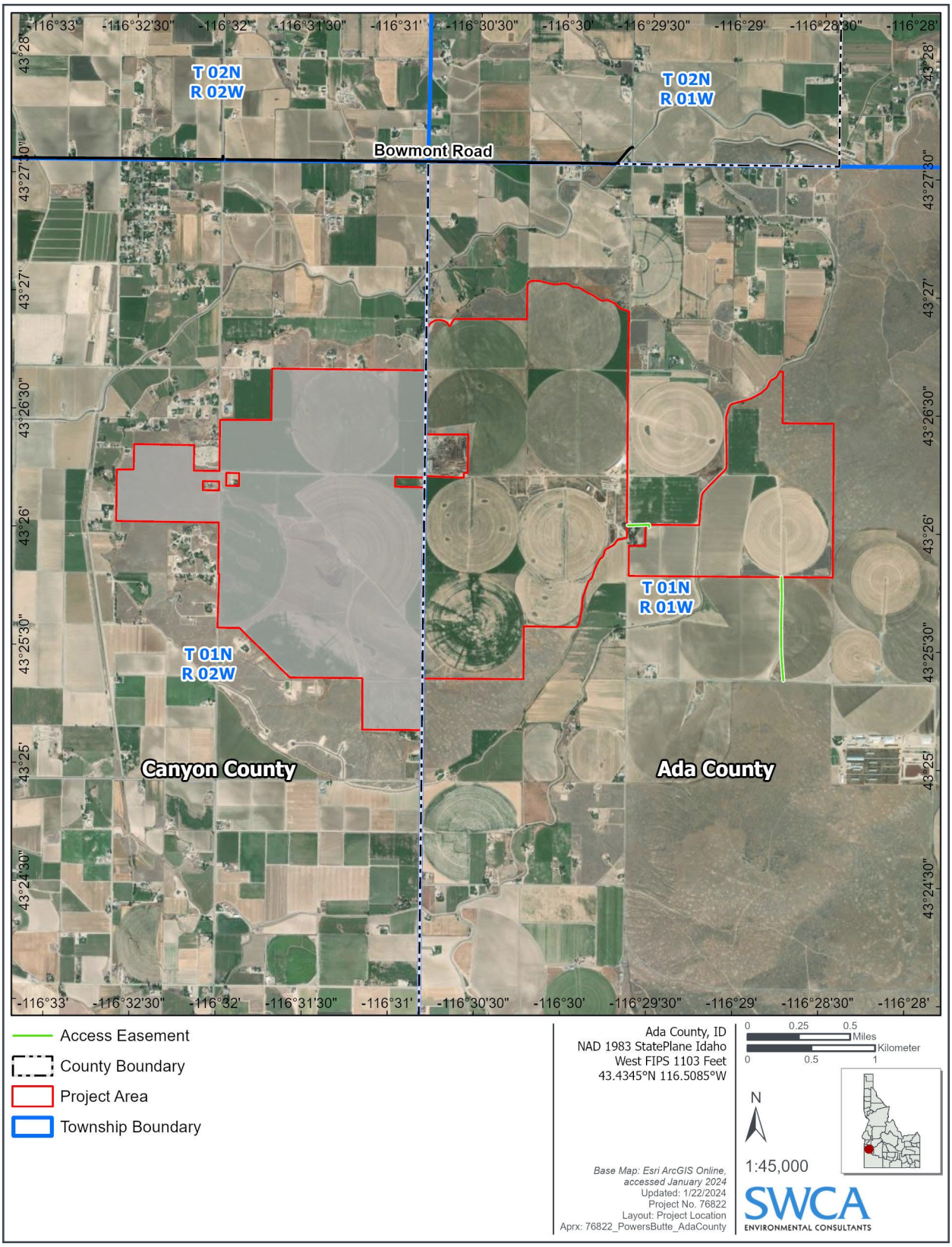

Figure 1. Project area location.

1.1 Conformance with Ada County Permitted Uses and Standards

In accordance with ACC 8-5-3-83, the Project is best categorized as a Centralized Power Facility. Centralized Power Facilities are a permitted conditional use within base district areas zoned as Rural Residential (RR) per ACC 8-2A-3 (Table 1). The pre-application meeting conference occurred on March 23, 2023, and the conference notes are provided in Exhibit H. The Ada County Permit Boundary consists of 1,356 acres of privately owned lands that are designated Agriculture (Irrigated) on the Ada County Future Land Use Map (Ada County 2023a) and are primarily zoned as Rural Residential (RR) (Figure 2).

Table 1. Allowed Use within the Rural Residential Rural Base District

Allowed Use	Rural Residential
Centralized Power Facility	C^4

Source: ACC 8-2A-3

Note: C^4 = allowed on irrigation districts and/or canal company's existing seasonal irrigation canals or ditches

In accordance with the general standards for a Centralized Power Facility (ACC 8-5-3-83-A-4), the Project a) will not be used for displaying any advertising except for reasonable identification of the manufacturer or operator; b) will comply with ACC 8-4A-21 (Utilities) such that utilities will be installed underground for a new dwelling or approved use, including electric, natural gas, water, wastewater collection, storm drainage, telephone, and cable services unless the requirement is waived by the Director; and c) will comply with all local, state, and federal regulations.

The Ada County Permit Boundary conforms with the specific standards for a Centralized Power Facility (ACC 8-5-3-83-B-1) in that a) the area is larger than 40 acres; b) Project components are not within an area of city impact; c) the Applicant is coordinating with appropriate agencies and will obtain permits and approvals where needed, including from the Federal Energy Regulatory Commission, Federal Aviation Administration, National Guard, Mountain Home Air Force Base, Idaho Division of Aeronautics, Boise Airport director, Idaho Public Utilities Commission, Idaho Power, Idaho Fish and Game Department (IDFG), U.S. Fish and Wildlife Service, Idaho Department of Water Resources, Idaho Department of Environmental Quality (IDEQ), Ada County Emergency Management & Community Resilience, Idaho Bureau of Homeland Security Public Safety Communications section, Ada County Highway District (ACHD), and the appropriate fire authority as applicable; and d) the master site plan for the proposed Centralized Power Facility (see Exhibit D) includes a map of the proposed PV solar arrays (see Section 3 for a detailed description of Ada County Permit Boundary components).

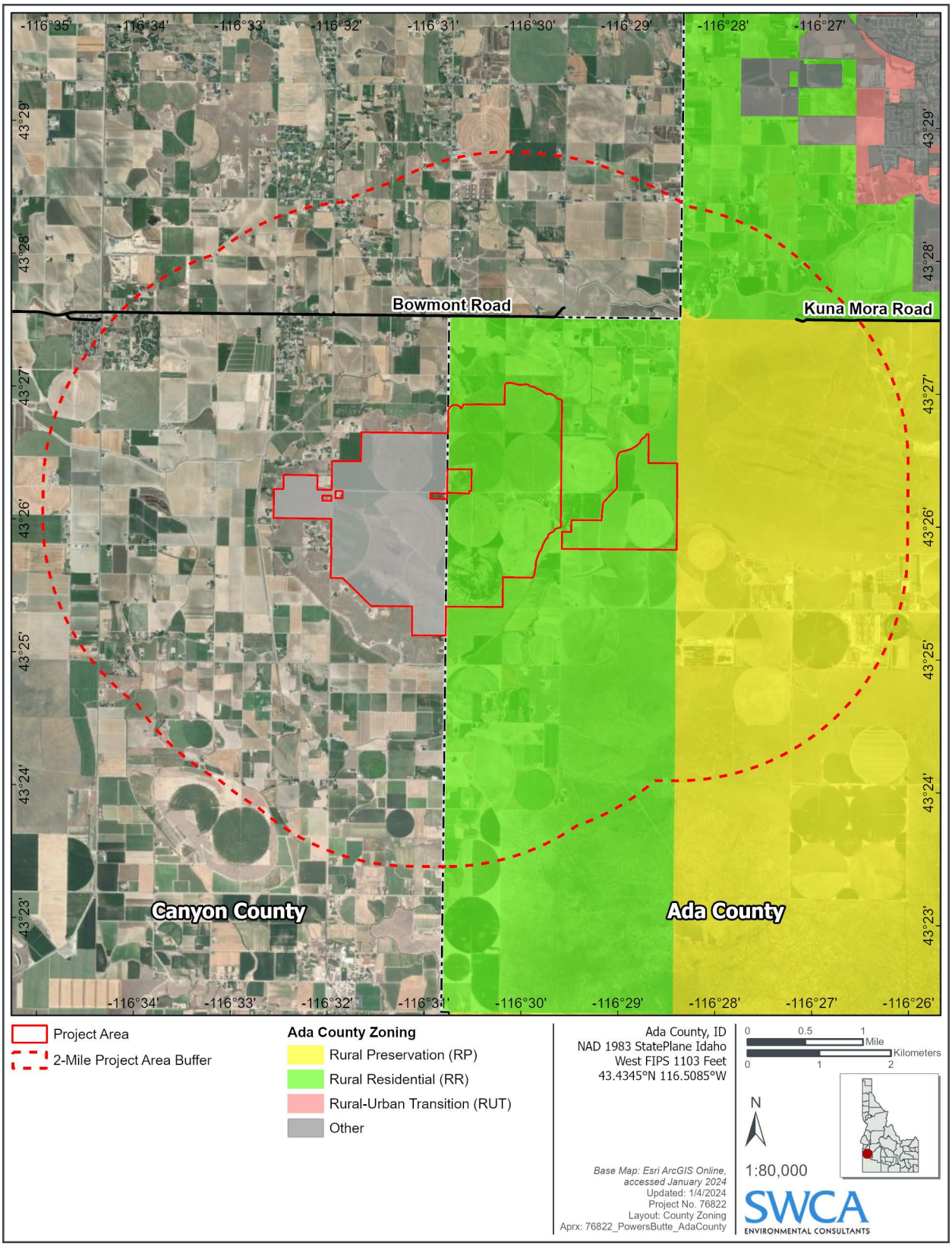

Figure 2. Project area and Ada County zoning designations.

The Project also meets additional solar facility standards described in ACC 8-5-3-83-B-2(c) in that all solar equipment will meet the required setbacks of the RR district (ACC 8-2A-4), as shown in Table 2, and all the solar panels will be nonreflective.

Table 2. Allowed Dimensional Standards within the Rural Residential Rural Base District

Dimensional Standard	Rural Residential
Property size (acres)	10 minimum
Minimum street frontage (feet)	100
Minimum setback (feet) from:	
Arterial, collector, or section line street	50
Other roadway	30
Property line not fronting a roadway	25
Maximum coverage (percentage)	5
Maximum height (feet)	35
Minimum property width and depth (feet)	100

The Ada County Permit Boundary does not overlap any portion of the Ada County overlay districts as shown in Figure 3 and as described below.

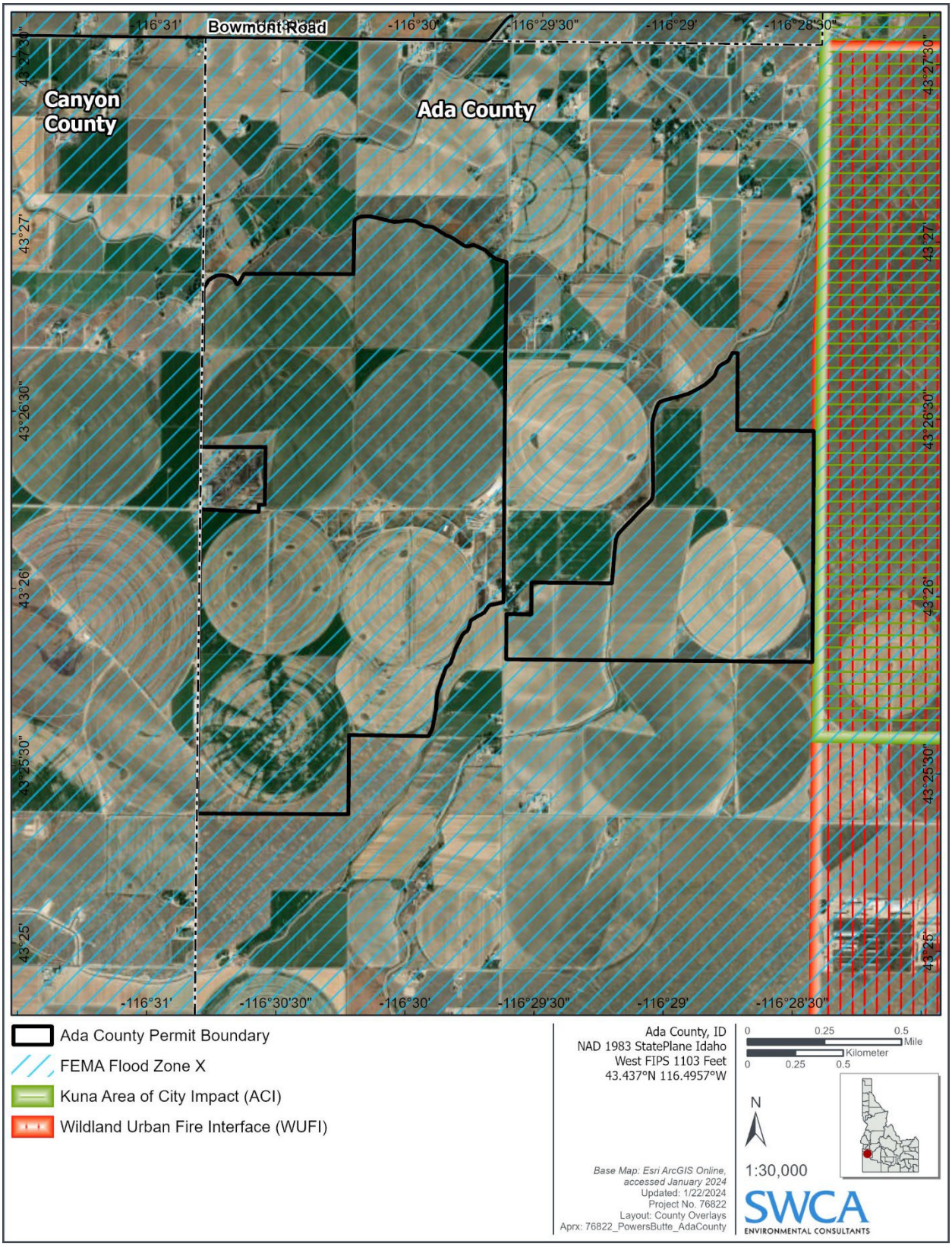

Figure 3. Ada County Permit Boundary in relation to Ada County overlay districts.

1.1.1 Kuna Area of City Impact

The Ada County Permit Boundary is entirely zoned as RR and there are no Project components that are within the Kuna Area of City Impact per ACC 9-1-1 (see Figures 2 and 3).

1.1.2 Boise Airport Influence Area

The Ada County Permit Boundary and its components are not proposed for siting within any zone of the Boise Airport Influence Area as defined in ACC 8-3A (see Figure 3).

1.1.3 Special Flood Hazard Area

The entire Ada County Permit Boundary is located within Federal Emergency Management Agency (FEMA) Flood Zone X, or areas of minimal flood hazard (see Figure 3). No Project components are proposed for siting within Flood Zone A. As such, a floodplain checklist is not required. The Project footprint is designed to avoid natural drainages and floodplains and will not contribute to flood hazard.

1.1.4 Wildland-Urban Fire Interface

The Project and its components are not proposed for siting within any Wildland-Urban Fire Interface. The Applicant will coordinate with the Melba Rural Fire Protection District, Idaho State Fire Marshal, and Ada County Building Division concerning all wildland fire–related Project requirements prior to start of construction.

1.2 Project Construction

The Applicant anticipates that the Project will require between 12 and 18 months for construction activities. The project facilities in Ada County are expected to be constructed all at once within that timeframe. However, the BESS in Canyon County may be constructed as a separate phase.

1.3 Assignment

As required by ACC 8-5B-2C, the Applicant will ensure that, upon the sale or transfer of this conditional use, the subsequent owner or operator will be licensed to own, operate, and maintain facilities such as the one being proposed. Prior to the sale, assignment, or transfer of the Project, Ada County will receive all required information, including a legal description and map and evidence of proper licensing.

2 PROJECT SUMMARY: PROPOSED USE AND EXISTING USE

Type of Development: The proposed Project, a solar PV generating facility, is classified as a Centralized Power Facility in Ada County. The Project will have a total electrical output capacity of up to approximately 250 MW. Approximately 237,000 solar PV panels will be in the Ada County Permit Boundary. The BESS and ancillary facilities are anticipated to be located in Canyon County and will be described and permitted as part of that county's CUP application.

Applicant:

Powers Butte Energy Center, LLC
422 Admiral Boulevard
Kansas City, Missouri 64106

Project Location: The Ada County Permit Boundary is in Ada County, approximately 1.5 miles southeast of Bowmont, Idaho.

Legal Description: See Exhibit J for a legal description of the Project area.

Landowners: Powers Butte Energy Center, LLC; Grasslands, LLC; Silver Butte Holsteins, LLC; and Stephen E. Bues

Parcels: There are 14 privately owned parcels in the Ada County Permit Boundary: S2208121100, S2208130000, S2208417200, S2208311250, S2218212420, S2207212410, S2207314800, S2206438400, S2207100000, S2207410000, S2207442100, S2218112200, S2218121000, and S2208244600; a potential second access road may be provided via an easement to use an existing access road through parcel S2217110100. Final location of utility easement property will be provided concurrent with application for a zoning permit. Utility easement will likely be placed underground, but a short section might be aboveground on poles less than 100 feet in height near Robinson Road. Proposed utility easement options are on parcels S2208121100, S2208130000, S2208417200, S2208311250, and S2218212420. Four additional Project parcels are within Canyon County and are listed in that county's CUP application.

Project Area and Fenced Area: The Ada County Permit Boundary encompasses approximately 1,356 acres of private land. The Project footprint (area of permanent and temporary impacts) may vary than what is provided on the Master Site Plan (see Exhibit D) based on increased setbacks, final engineering and design requirements and coordination with permitting agencies and community.

Zoning: RR: 1,356 acres

Overlay Districts: None

Existing Use: The Ada County Permit Boundary area has primarily been used for grazing, irrigated farming, and dairy farming.

3 DETAILED DESCRIPTION OF PROPOSED USE

3.1 Purpose and Rationale

This Project will help to diversify Idaho and the region's sources of energy while contributing to Idaho Power's statewide initiative of providing 100% clean energy by 2045 (Rodriguez 2021).

The Applicant anticipates that the Project will provide up to 400 new construction jobs and an increased tax base to Ada County while increasing the overall energy output of the state.

3.2 Project Description and Site Characteristics

The 1,356-acre Ada County Permit Boundary area is on private land in Ada County, Idaho, approximately 1.5 miles southeast of Bowmont, Idaho (see Figure 1). More specifically, the Ada County portion of the

Project area is located east of Robinson Boulevard, north of Kuna Cave Road, south of Fairchild Road, and west of Black Cat Road.

The Ada County Permit Boundary will include approximately 237,000 ground-mounted solar PV panels, single-axis tracking structures to support the solar arrays, a power collection system, and access roads. The Project will include an on-site substation west and adjacent to Idaho Power's Bowmont Substation (located in the western portion of the Project area in Canyon County, west of the intersection of Southside Boulevard and Rose Lane). The Project will interconnect with the substation on either the 138-kilovolt (kV) or the 230-kV circuit.

The Ada County Permit Boundary contains approximately 237,000 solar PV panels and all other Project components will be located in Canyon County. Please refer to Exhibit D, Site Plan Map, to see details regarding lot lines, lot area, private roadways, walkways, topographic features, reserved open space, buildings and other structures, major landscape features, and the location of proposed utility easements. A list of Ada County Permit Boundary parcels is provided in Exhibit K, and property deeds are provided in Exhibit G. Details on Project components and features shown in the Site Plan are provided below.

The Ada County Permit Boundary footprint consists of the following components:

- AC, single-axis tracking PV modules/solar arrays
- Collection system (DC collection and AC collection) that is anticipated to be all underground with the potential for a short extent aboveground
- Inverters
- Access roads
- Telecommunications/supervisory control and data acquisition (SCADA) for facility operations monitoring
- Fencing
- Meteorological station

3.3 Project Schedule

The Project schedule will depend on several factors, including the needs of utility and other power purchasers. In the preconstruction phase, geotechnical and drainage studies will be conducted to further refine the Project design, and construction financing will be coordinated. Completion of a power sales agreement with an electricity off-taker is required for financing and will establish the Project schedule.

Construction activities are planned to be completed over a period of approximately 12 to 18 months. The construction timeline is subject to change and is dependent on various contractual agreements, financing arrangements, or unforeseen circumstances outside of the Applicant's control. At present, Project construction is planned to start in early fall 2025, with a planned commercial operation date of June 2026. The Project schedule is still being developed and will be coordinated with Ada County as development progresses and through review of applicable zoning and building permits.

3.4 Site Design and Construction Methods

The site plan map (see Exhibit D) provides a preliminary layout of Project components. Final details and component specifications will be developed after the Applicant has secured required permits, including

the CUP, and construction financing. Construction will begin after construction service vendors have been selected and all building permits have been acquired.

Site preparation and grading will be necessary to accommodate the Project footprint, and grading will be limited to the extent practicable. For grading across the site, personnel will clear the impacted areas and grub them of vegetation and miscellaneous debris. During grading operations, existing contours will be smoothed out to eliminate potential washes and to accommodate future O&M activities.

Temporary construction staging areas are proposed to accommodate the delivery and assembly of materials and equipment. These areas may contain temporary storage of diesel and gasoline fuels, located in aboveground 1,000-gallon diesel and 500-gallon gasoline tanks, within designated secondary containment areas. Additionally, the Applicant may have one or more temporary concrete batch plant areas within the construction areas.

3.4.1 Solar Facility Design and Construction

The Project will include approximately approximately 237,000 PV modules (panels) in Ada County to convert solar energy into DC electrical energy. The individual solar modules will be connected in a series to create "strings." The strings are then grouped into combiner blocks and then further grouped into solar arrays using an aboveground or belowground collection system and ganged together at inverter stations.

The solar arrays will be oriented to allow them to follow the sun's movement throughout the day. The panel faces will be minimally reflective, dark in color, and highly absorptive. Depending on the dimensions of the chosen solar panels, the individual tracker units will have a height of approximately 8 to 10 feet above grade. The arrays will be separated by approximately 20 to 30 feet to provide access for first responders along interior roads and for workers engaged in O&M.

The PV modules will be transported by truck to the Project area. Steel piles will be used to support the trackers and modules. The piles will be driven into the ground using pneumatic techniques to varying depths depending on soil characteristics. After the steel piles are installed, workers will assemble tracker motors, torque tubes, and other components. These systems will be field-assembled and attached according to the manufacturer's guidelines. The final selection of the tracking system will occur when the Project is more fully developed.

As required by the additional standards for solar facilities described in ACC 8-5-3-83-B-2(c), all solar equipment will meet the required setbacks for the RR district, and all solar panels will be nonreflective.

3.4.1.1 POWER COLLECTION SYSTEM

The DC electricity from the solar modules will be connected to power inverters to convert to AC, which is used by the regional electrical grid. Underground cables, either rated for direct bury or installed in a polyvinyl chloride conduit, will be installed to transmit the DC electricity via combiner boxes throughout the solar array to the inverters. The inverter stations are typically open air, approximately 10 to 14 feet high, and suitable for a high desert environment. The inverters will perform three critical functions for the Project: 1) collect DC power in a central location, 2) convert the DC power into AC power, and 3) convert low-voltage AC power to medium-voltage AC power via a co-located transformer.

The output voltage from the inverters will be stepped up to the voltage of the electrical collection system (i.e., 34.5 kV). From the inverters, medium-voltage wiring rated at 34.5 kV will be encased in conduit and buried 18 to 24 inches below grade. This medium-voltage wiring will be routed to the Project's on-site substation. The accumulated power will be transmitted to Idaho Power's Bowmont Substation on either

the 138- or 230-kV circuit. This infrastructure will likely be placed underground, but a short section might be aboveground on poles less than 100 feet high near Robinson Road. Final design plans will be provided at the same time as the building plans.

3.4.1.2 ON-SITE SUBSTATION

The on-site substation will be located in Canyon County proximate to the BESS. No part of the substation will be located in Ada County.

3.4.2 Ancillary Facilities

3.4.2.1 OPERATIONS AND MAINTENANCE FACILITY

The O&M facility will be located in Canyon County proximate to the on-site substation and BESS. No part of the O&M facility will be located in Ada County.

3.4.2.2 TELECOMMUNICATIONS

The SCADA system will collect operating, performance, and weather data from the solar arrays, providing continuous operation and 24/7 monitoring of the solar facility. The solar arrays will be linked to a central, on-site computer that reports to a remote operations center using a combination of fiber-optics, cellular, or satellite communications. The fiber optic cables will primarily be buried with the on-site electrical distribution lines to the central computer. A lattice construction tower or equivalent may be used to transmit the data and will not exceed the zone height requirements. The SCADA system will interface with local utility grid operations to allow for monitoring of plant operations and to disable output as necessary to ensure safety and/or grid operation requirements.

3.4.2.3 EXTERIOR LIGHTING

Permanent outdoor night lighting will be installed at the O&M facility and potentially around a water storage facility (if required for the wildfire mitigation plan); these facilities are not anticipated to be within the Ada County Permit Boundary. Some portable lighting may be needed for maintenance activities that must be performed at night. The lighting system will consist primarily of AC lighting but will include DC lighting for activities or emergency egress required during any unplanned outage of the Project's AC electrical system. Lights will be directed downward or toward the area to be illuminated to reduce glare in adjacent areas. Project light fixtures will not reflect light beyond the site. Lights in high-illumination areas that are not continuously occupied will be activated by switches, timer switches, or motion detectors so that the lights will be off when the area is not occupied. Where feasible, vehicle-mounted lights will be used for night maintenance activities. The Applicant will provide more details concerning the lighting plan closer to final design and with building plans.

3.4.2.4 PERIMETER FENCING AND GATES

The Project area will be fenced to restrict public access during construction and operations. The security fence will consist of one of several varieties including a 7-foot-high wire mesh with wood poles, a 7-foot-high wire mesh with metal poles, or a 6-foot-high chain-link security fence with 1 foot of barbed wire (three strands) mounted on 45-degree extension arms facing outward. These fences will be installed around the site perimeter, the switchyard, and other areas requiring controlled access. Controlled security gates will be installed at the site entrance and will require an electronic swipe card or other similar

electronic access. First responders will have access through the use of a Knox Box or other approved method.

3.4.2.5 SIGNS

Signs will be needed during construction and will be primarily related to traffic control. Project facilities will not be used for advertisements, except for reasonable identification of affiliated construction companies, facility operators, etc. The Applicant will ensure all temporary signs used for construction are removed. Signs unrelated to construction and traffic, if any, will be sited according to Ada County Code and provided with the building plans. Project-associated signs will also comply with applicable guidelines from the Idaho Department of Transportation and ACHD.

3.4.2.6 METEOROLOGICAL

Meteorological stations will be approximately 8.5 feet at the tallest point (meteorological sensor support tower) mounted either on a post/tower or a more modular tripod base.

3.4.2.7 SITE ACCESS

The Ada County portion of the Project area will be accessed directly from Rose Lane and South Robinson Road and with a potential future secondary access easement on an existing developed access road from Kuna Cave Road for approximately 2,600 feet (see Exhibit D). The Ada County Permit Boundary access areas will be improved, if needed, with crushed aggregate, gravel, or equivalent material depending on local sourcing options. A small network of interior access roads will be developed within the Project area from the primary access points for construction and maintenance needs, as well as delivery of Project components.

The interior access roads will be designed and maintained for construction and O&M activities, such as cleaning the PV panels, and facilitating on-site circulation and adequate turnarounds for emergency vehicles. The interior access roads will be 20 feet wide and include a 35-foot turning radius to accommodate first responders and emergency vehicles. Road surfaces will be composed of gravel, compacted aggregate base, or another commercially available surface material.

3.4.2.7.1 Raw Material Delivery

Construction materials and supplies will be delivered to the Project area via truck (see Exhibit D). During construction, approximately 15 trucks per day are expected to deliver materials and construction equipment during non-peak periods, with 20 trucks per day expected during peak periods. Between one and three temporary laydown yards approximately 3 to 5 acres each will be established within the fenced solar facility area during construction. These laydown yards will be used for office trailers, parking areas for construction and personal vehicles, and storage of construction equipment and materials. The laydown yards will be developed with permanent Project infrastructure as construction progresses or will be restored following construction. The location of the laydown yards is shown in the Site Plan (see Exhibit D).

The Applicant will implement a 25-mile-per-hour speed limit on Project access roads for safety and dust control. Delivery vehicles will be directed to the temporary construction laydown yards or active construction sites. Vehicles not needed for installation of Project components will be staged at the laydown yards until the end of the workday. Traffic management procedures will be designed to minimize potential hazards from increased truck traffic and worker traffic and to minimize impacts to traffic flow in the vicinity of the Project.

3.4.2.7.2 Existing and Proposed Roads

The proposed roads in the Ada County Permit Boundary are shown in Exhibit D. Naming of internal Ada County Permit Boundary private roads and any required private road signs will comply with ACC 2-1-6 and ACC 2-1-10, as applicable, and will be provided closer to final design and with building plans.

3.4.2.7.3 Off-Street Parking and Loading

It is anticipated that there will be intermittently a maximum of four employees on a shift for O&M activities, although typically there will be no employees or therefore vehicles, on-site. Similar uses in Table 8-4G-2 (ACC) require one parking space per two employees for utilities, which results in two spaces for the Project. However, no parking or loading areas are proposed in the Ada County Permit Boundary. Rather, the required parking spaces will be located adjacent to the O&M building, which will be in Canyon County. O&M activities on the site in Ada County will require traveling through and temporarily parking along the solar panels and on the pullouts in the internal access road network rather than parking at one central location. As noted above, these activities are intermittent/irregular only. Therefore, the Applicant requests that the Director approve an alternative off-street parking and loading plan as allowed by ACC 8-4G-5-D to allow temporary and intermittent parking on the 20-foot internal gravel access road network and turnouts as depicted on the Site Plan (see Exhibit D) and to designate the required parking spaces adjacent to the O&M building in Canyon County.

3.5 Operations and Maintenance

Once construction is completed, the Project will operate year-round and be capable of generating power 7 days a week during daylight hours, with additional storage capacity during off-peak hours. The Applicant's SCADA system will monitor the Project and provide real-time control. The Applicant does not anticipate the need for full-time staff on-site, but up to four personnel will be needed for periodic maintenance. When required for maintenance purposes, personnel will typically be present between 7 a.m. and 8 p.m. (depending on task requirements) during a typical workday, unless circumstances at the facility require an alternate schedule.

The Applicant's maintenance personnel will visit the facility on an as-needed basis, but no less than quarterly. Data from other solar facilities across the country indicate that panel washing may not be needed. If this is not the case, the PV panels may be washed up to two times per year to increase the average optical absorption of the panel surface. The Applicant has access to an on-site water source; an off-site source might be used through a third-party vendor that supplies their own water.

3.6 Safety Considerations

The Project will not pose any serious public health or safety concerns. Much of the power-generation system operates at low voltage and power levels. Substation and BESS equipment will be contained in a secure fenced area (all proposed in Canyon County). The proposed voltages and transmitted power are at similar (or lower) levels as the existing transmission lines traversing the immediate area. The design, construction, and O&M of the Project will meet the requirements of the National Electrical Safety Code and U.S. Department of Labor Occupational Safety and Health Administration standards and requirements for the safety and protection of landowners and their property. The Applicant and all associated contractors will provide a safe work environment at all times. During non-work periods, all tools and materials will be gathered, cached, and secured to prevent safety problems and vandalism. Safety plans will be developed and implemented as required by federal, state, and local regulations.

3.6.1 Fire Protection

The Project is not located within the boundaries of the Ada County Wildland-Urban Fire Interface (see Figure 3). The Applicant will coordinate with state and local fire and officials such as the Melba Rural Fire Protection District to develop fire prevention, notification, and response procedures, and will follow ACC Title 8-3B-3 standards. A fire management plan will be prepared with fire prevention procedures, emergency notification procedures, and a site evacuation process. Training will be provided to all site personnel to ensure compliance with the approved fire plan.

The solar panels and other electrical equipment will be designed to meet all applicable Underwriters Laboratories and International Electrotechnical Commission ratings for their resistance to fire. The BESS (proposed in Canyon County) will be designed and constructed in accordance with safety guidelines from the National Fire Protection Association. The battery storage will incorporate seismic protection features to mitigate risks associated with earthquakes. Smoke and fire detection and suppression systems will also be incorporated into the system. Access to and within the Project area will be designed to allow appropriate access for fire and emergency vehicles. During construction and O&M fire extinguishers will be available at strategic locations throughout the Project area and inside Project vehicles. Vegetation will be routinely maintained to minimize the risk of wildfire. Appropriate signage will be used to assist firefighters and emergency response personnel.

3.6.2 Law Enforcement

The responsibility for law enforcement in the Ada County Permit Boundary vicinity is under the jurisdiction of the Ada County Sheriff. The Applicant does not anticipate any adverse impacts to the operations of the sheriff's office or its ability to provide adequate protection services to the surrounding community.

3.7 Impact Control Measures for Sound, Odors, and Air Quality

3.7.1 Noise

Noise from construction activities will vary, depending on factors such as equipment used, operations schedule, and meteorological conditions. Truck traffic and heavy equipment will cause temporary elevated noise levels at and near active construction sites. Noise will also be generated along access roads by vehicles transporting workers and construction materials. Most construction activities will occur during the day, and nighttime noise levels are anticipated to drop to the current background levels of the Project site.

3.7.2 Air Quality

Localized impacts to air quality could occur from Project construction and O&M activities in association with tailpipe emissions from delivery and construction vehicles, fugitive dust from soil disturbance, and vehicle travel on unpaved roads. Short-term increases in dust emissions during construction will be mitigated by the implementation of dust abatement plan. All vehicles and construction equipment will be maintained to minimize exhaust emissions and will be properly muffled to minimize noise. Disturbed areas will be watered as necessary to suppress dust. The Applicant will work with the IDEQ and secure any necessary air quality–related permits prior to commencement of construction.

The Project is expected to have no impacts on air quality, dust, or odors during Project operations. Solar facilities do not generate emissions or odors. Fugitive dust and vehicle emissions from occasional O&M activities will be minimal.

3.8 Waste Management

Project waste will include nonhazardous solid waste, hazardous solid waste, and hazardous liquid waste. Safety-related plans and programs will be developed and implemented during construction and operations to ensure safe handling, storage, and use of waste materials. Project workers will be supplied with appropriate personal protective equipment (PPE) and will be properly trained in the use of PPE and the handling, use, and cleanup of hazardous materials used at the facility, as well as procedures to be followed in the event of a leak or spill. Adequate supplies of appropriate cleanup materials will be stored on-site.

3.8.1 Solid and Non-hazardous Waste

Construction and O&M of the Project will generate non-hazardous solid wastes typical of power generation or other industrial facilities. The wastes that are produced will include oily rags, worn or broken metal and machine parts, defective or broken electrical materials, other scrap metal and plastic, insulation material, empty containers, paper, glass, and other miscellaneous solid wastes, including the typical refuse generated by workers. These materials will be disposed by means of contracted refuse collection and recycling services. Waste collection and disposal will be in accordance with applicable regulatory requirements to minimize health and safety effects. Food waste will be disposed of in closed containers to prevent attracting predatory species to the area.

3.8.2 Hazardous Chemicals

A variety of hazardous materials will be used and stored during Project construction. During Project O&M, hazardous materials will be used but will not be stored on-site. A hazardous materials management plan and a spill prevention, control, and countermeasures plan will be developed and implemented in accordance with all federal and state requirements, as applicable. Hazardous materials that will be used during construction include gasoline, diesel fuel, oil, lubricants, and small quantities of solvents and paints. During construction, all hazardous materials will be stored on-site in storage tanks or vessels/containers that are specifically designed for the characteristics of the materials to be stored. The storage facilities will include secondary containment in case of tank/vessel failure.

3.8.3 Hazardous Solid and Liquid Waste

Small quantities of hazardous waste will be generated during Project construction and O&M. Hazardous wastes generated during the construction phase will include substances such as paint and primer, thinners, and solvents. Hazardous solid and liquid waste streams generated during O&M include substances such as used hydraulic fluids, oils, greases, filters, etc., as well as spent cleaning solutions and spent batteries. A hazardous materials management plan and a spill prevention, control, and countermeasures plan will be developed and implemented in accordance with all federal and state requirements prior to the start of construction.

3.9 Environmental

The Applicant has conducted a thorough review of the Project area and believes the site is well-suited for a utility-scale PV solar energy center. The Applicant has retained the services of an environmental services consultant (SWCA Environmental Consultants [SWCA]) with considerable experience with solar and other renewable energy projects to assess environmental impacts, including biological, cultural, vegetation, and wildlife field surveys and to perform monitoring activities. The results of the desktop and field surveys have been incorporated into the Natural Features Analysis that is part of this application (see Section 4.1.2).

3.10 Decommissioning

The Project is expected to have a usable lifespan of approximately 40 years. After the Project is no longer operational, the Project will be decommissioned and the Project area will be reclaimed. The decommissioning process and procedures are designed to promote public health and safety, environmental protection, and compliance with applicable regulations. Project decommissioning activities will likely occur in a phased and sequential manner and are estimated to require 2 to 3 years to complete. A Project decommissioning plan will be developed in accordance with all applicable regulations and submitted to Ada County for review and approval prior to permanent closure. The decommissioning plan will likely include the following key components:

- Documenting and establishing health and safety procedures and all applicable federal, state, and local regulations.
- Conducting pre-decommissioning activities, such as final decommissioning and restoration planning.
- Dismantling equipment that can be sold on the used-equipment market.
- Recycling facility components where technologically and economically feasible.
- Demolishing aboveground structures (dismantling and removing improvements and materials) in a phased approach through mechanical or other approved methods while still using some items until decommissioning has been completed (e.g., water supply, O&M facility).
- Demolishing and removing belowground facilities (e.g., floor slabs, footings, and underground utilities) as needed to meet the decommissioning goals.
- Disposing hazardous materials and hazardous waste to appropriate facilities for treatment/disposal or recycling, as required.
- Conducting subsurface remediation, if required.
- Recontouring lines and grades to match the natural gradient.

3.11 Economic Impact and Community Benefits

3.11.1 Construction

Construction will generally follow a 12-hour, 5-day workweek, with work activities occurring between 7 a.m. and 7 p.m., Monday through Friday. Additional hours and/or weekends may be necessary to make up schedule deficiencies or to complete critical construction activities. The Applicant currently anticipates

that Project construction will require up to between 150 and 400 full-time construction workers during the peak construction period of the Project. Construction activities are expected to take between 12 to 18 months to complete, and the daily number of construction workers physically on-site will vary over time. As much as possible, qualified workers will be sourced from local communities in Ada County. Construction activities will require qualified engineers, surveyors, electricians, general contractors, project managers, and general laborers with applicable industry requirements for utility-scale energy projects.

3.11.2 Operations and Maintenance

Up to four maintenance personnel will be needed for periodic maintenance for the lifetime of the Project. Maintenance personnel will typically be present between 7 a.m. and 8 p.m. (depending on task requirements) during a typical workday, unless circumstances at the facility require an alternate schedule.

The Applicant's maintenance personnel will visit the facility for normal preventative maintenance, but no less than quarterly. Maintenance workers will perform regular inspection of field components, condition assessment of critical equipment, and routine lubrication of equipment. Any painted facilities will be repainted on a regular basis to maintain their appearance and to provide protection from the elements. Data from other solar facilities across the country indicate that panel washing may not be needed. If this is not the case, the PV panels may be washed up to two times per year to increase the average optical absorption of the panel surface.

4 DETAILED LETTERS

This section contains detailed letters to accompany the Master Site Plan and the Applicant's request for a Lot Coverage Variance. The Conditional Use Checklist: Solar Voltaic (see Exhibit B), Master Site Plan Checklist (see Exhibit C), Site Plan Map (see Exhibit D), and Variance Checklist (see Exhibit E) are included with this application.

4.1 Detailed Letter for Master Site Plan

This detailed letter is provided to accompany the Master Site Plan Checklist (see Exhibit C) and Site Plan Map (see Exhibit D) that are part of this application. The following subsections outline the standards set forth in ACC 8-4E-4 (Master Site Plan Standards). Prior ACC sections 8-1, 8-2, and 8-3 are excluded here for simplicity. The Site Plan shows the preliminary conceptual layout of the Ada County Permit Boundary facilities. The proposed use is described above in Sections 1, 2, and 3. The Project is associated with a conditional use checklist associated with a Centralized Power Facility (see Exhibit B per ACC 8-5B). The Project's hours of operation are described above in Section 3.5. The Project components do not include sewer, septic, groundwater well, or irrigation.

4.1.1 Nonvehicular and Automobile Access and Internal Circulation (ACC 8-4E-4B/C)

The proposed primary access to the Project is anticipated to be via Rose Lane. South Robinson Road will also be used to access the panel arrays in Ada County.

The site design, described in Section 3.4, will provide sufficient internal circulation for all development activities in accordance with ACC 8-4E-4C. The Project's design will adequately address road widths and turnarounds for delivery vehicles and fire trucks. Pedestrian access will be prohibited and is not required

by ACC because the Project does not fall within a commercial base district. Emergency access to the Project area will be identified on the final site plan, and all required approvals and improvements will be completed before construction begins and will be reviewed as part of the building permits submittal.

Temporary construction parking will be at the laydown yards. Off-street parking or loading areas are proposed in the Ada County Permit Boundary because O&M activities will require traveling through and temporarily parking in the pullouts in the internal access road network and along the solar panels versus parking at one central location. There will be designated parking for the Project at the O&M facility in Canyon County. Therefore, the Applicant is requesting that the Director approve an off-street parking plan, the proposed Site Plan, according to ACC 8-4G-5-D.

4.1.2 Natural Features Analysis (ACC 8-4E-4D)

The Applicant has retained an environmental consulting firm with qualified staff to perform all required environmental analysis, field studies, and permitting. The Applicant is also coordinating with IDFG, IDEQ, and other state and local agencies, as applicable. A description of the natural features present in the Project area is provided below in accordance with ACC 8-4E-4D (1-8). The email communication from IDFG is included as Exhibit I. Per the email with Brandon Flack, IDFG: "Aerial imagery and the report from SWCA indicate most of the Project property is currently disturbed, being used mainly for agricultural production, and contains little native vegetation that could provide habitat for native wildlife species. Considering the footprint of the Project overlays an area that has already been disturbed (or is surrounded by other suburban development or agricultural lands) and little intact native habitat exists on the Project property or on the adjacent properties, IDFG would not anticipate effects of the proposed activities on native plant or terrestrial wildlife populations" (personal communication, email from Brandon Flack, Regional Technical Assistance Manager, IDFG, to Anneke Solsby, Savion, LLC , December 22, 2023).

4.1.2.1 HYDROLOGY

The Applicant's consultant (SWCA) conducted a review of the U.S. Geological Survey's (USGS's) National Hydrography Dataset (Idaho Department of Water Resources and USGS 2022) data in preparation for a 2,385-acre wetland field survey conducted in Ada and Canyon Counties between April 24 and 27, 2023 (Exhibit L). The field survey did not differentiate between aquatic resources in Ada vs. Canyon counties, so the results for both counties are combined.

The desktop reviews indicated a total of approximately 8,020.76 linear feet of mapped National Hydrography Dataset features and 2.63 acres of intermittent lake/pond waterbodies within the surveyed areas (see Exhibit L). The Waldvogel Canal, C07, flows through the eastern portion of the Project area (referred to as Survey Area in Exhibit L) and is the nearest aquatic resource that appears on the USGS topographic map.

No surface water flow was found during field surveys within the Survey Area. At the time of the surveys, there was evidence of heavy cattle use and manure storage in the Survey Area. Several irrigation canals were identified along the perimeter of the Survey Area. The hydrologic features are shown in Figure 4 (note, vegetation not associated with hydrologic features is discussed in Section 4.1.2.4 and shown in Figure 7). A copy of the aquatic resources delineation report is provided in Exhibit L. A hydrology and flood inundation report was also conducted for the Project and is included as Exhibit M.

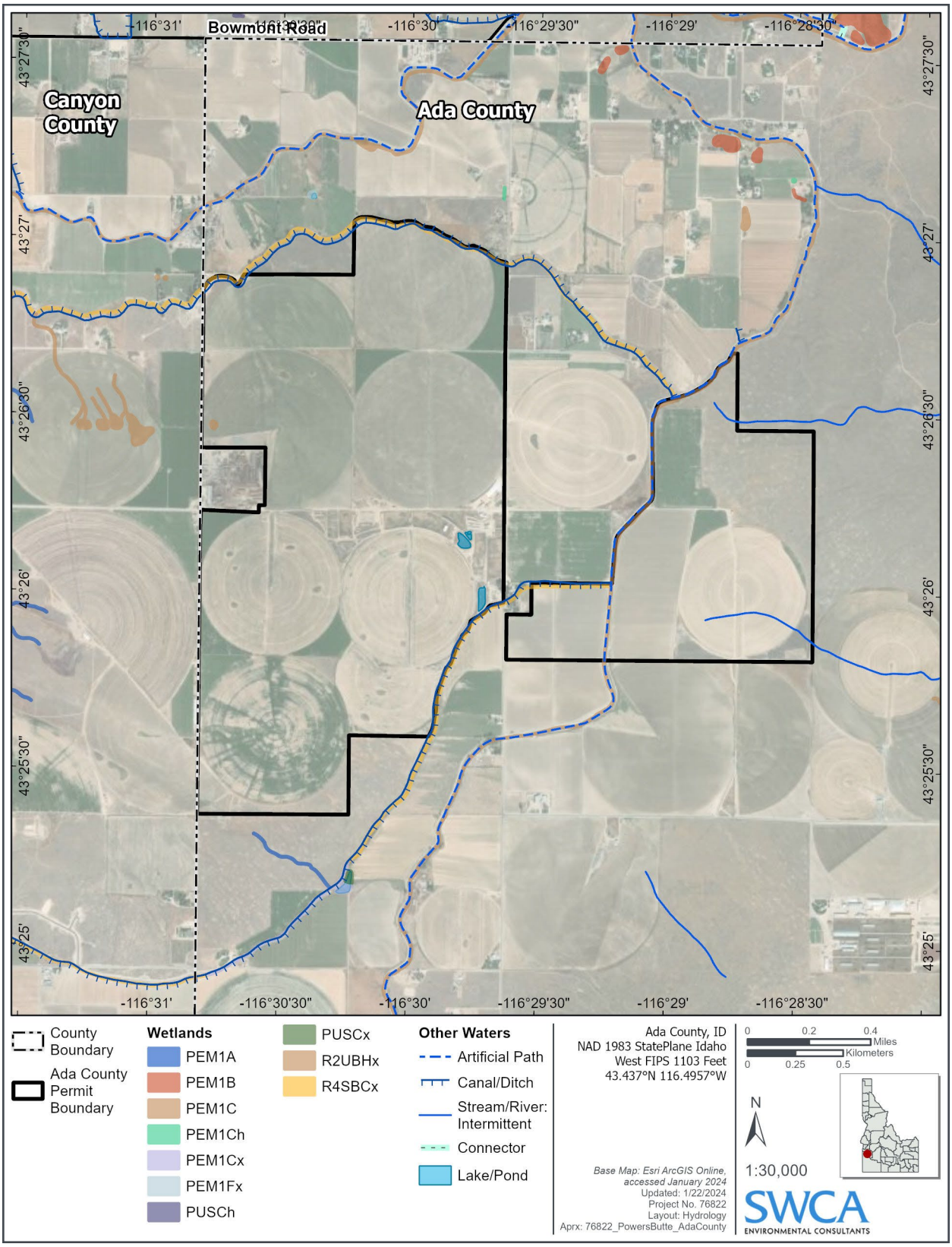

Figure 4. Ada County Permit Boundary hydrologic features.

Stream corridors are regulated under ACC 8-3-G, which requires a minimum development setback of 50 feet from the annual average high-water mark for all perennial and intermittent streams. The Project layout has been designed to avoid adverse impacts to sensitive hydrologic features and impacts to drainages. The analysis of hydrologic features also includes wetlands and floodplains as described below.

The proposed use is a private action proposed on privately owned lands and would not adversely affect the human or natural environment, other property in the immediate vicinity, or negatively change the essential character of the Project area and vicinity. The proposed use is compatible with existing agricultural, commercial, industrial, and residential uses and the character of the area.

4.1.2.1.1 Wetlands

The Applicant's consultant (SWCA) conducted an initial field survey of aquatic resources and wetlands of the entire Project area between April 24 and 27, 2023, (approximately 2,385 acres) to identify and delineate wetlands. The aquatic resources delineation report is attached to this application (see Exhibit L).

The survey delineated four human-made cattle ponds (2.6 acres) lacking hydric soils and vegetation, and seven irrigation canals (15,079.76 feet, 4.57 acres) totaling 7.17 acres. All of the delineated aquatic resources are suspected to be non-jurisdictional as they are human-made, used for agriculture, and lack a continuous connection with traditionally navigable waters. Under the Clean Water Act, the U.S. Army Corps of Engineers has sole authority to determine what resources are jurisdictional or not jurisdictional at the federal level. Under Idaho Code, ditches, canals, laterals, and drains that are constructed and used for irrigation or drainage purposes are not stream channels (Idaho Code Annotated 42-3802).

The mapped aquatic resources delineated in the Survey Areas are summarized in Table 3. The Project footprint will avoid natural wetlands and drainages.

This section provides a summary of the Project area existing land use and resource conditions and how the preliminary design and proposed use is responding to existing conditions.

Table 3. Aquatic Resources in the Project Area

Wetland Classification	Number of Wetlands in Project Area	Total Wetland Acreage in Project Area
Human-made pond	4	2.60
Canal	7	4.57
Total	**11**	**7.17**

4.1.2.1.2 Floodplains

FEMA maps were evaluated to determine potential for flooding in the Project area (FEMA 2023). The entire Project area (2,385 acres) is designated as Flood Zone X, which is defined as an area of minimal flood hazard. The Project footprint was designed to avoid natural drainages and floodplains; therefore, it will not contribute to flood hazard. The Applicant's consultant (Kleinfelder) prepared a hydrology and flood inundation report for the Project that is included as Exhibit M.

4.1.2.2 SOILS

A desktop review of soils data from the Natural Resources Conservation Service was conducted for the Ada County Permit Boundary to identify soil types and slopes by acreage. The results are shown in Figure 5 and Table 4. The predominant soil type is the Scism silt loam on 2 to 4 percent slopes (soil unit 161). Shallow sloping areas are well suited for solar installations.

Table 4. Soils in the Ada County Permit Boundary

Soil Unit Number*	Soil Unit Name	Area (acres)
161	Scism silt loam, 2 to 4 percent slopes	440.1
127	Potratz-Power silt loams, 4 to 8 percent slopes	322.9
160	Scism silt loam, 0 to 2 percent slopes	234.6
165	Scism silt loam, bedrock substratum, 4 to 8 percent slopes	101.0
164	Scism silt loam, bedrock substratum, 2 to 4 percent slopes	65.7
130	Power silt loam, 2 to 4 percent slopes	64.4
166	Scism silt loam, bedrock substratum, 8 to 12 percent slopes	52.8
145	Purdam-Power silt loams, 2 to 4 percent slopes	30.5
140	Power-Potratz silt loams, 2 to 4 percent slopes	19.2
136	Power-McCain silt loams, 8 to 12 percent slopes	20.4
158	Rock outcrop-Trevino complex, 5 to 20 percent slopes	3.1
62	Garbutt silt loam, 4 to 8 percent slopes	1.2
126	Potratz silt loam, 4 to 8 percent slopes	0.1
Total		**1,356**

Source: Natural Resources Conservation Service (2023).
* Soil unit number corresponds to soil units mapped in Figure 5.

Site-specific geotechnical investigations have been performed to identify subsurface soil conditions. These tests are being used to design specifications of roads, underground trenching, electrical grounding systems, and pile design for the solar panel and tracker systems. Soil tests were also conducted to measure the soil's electrical properties to ensure proper design of the grounding system.

Project activities will require the removal of subsurface and surface soils in some areas. Within temporary use areas, topsoil will be removed temporarily and replaced following the completion of development. Impacts to vegetation and soil will be minimized through the development and implementation of site restoration best management practices.

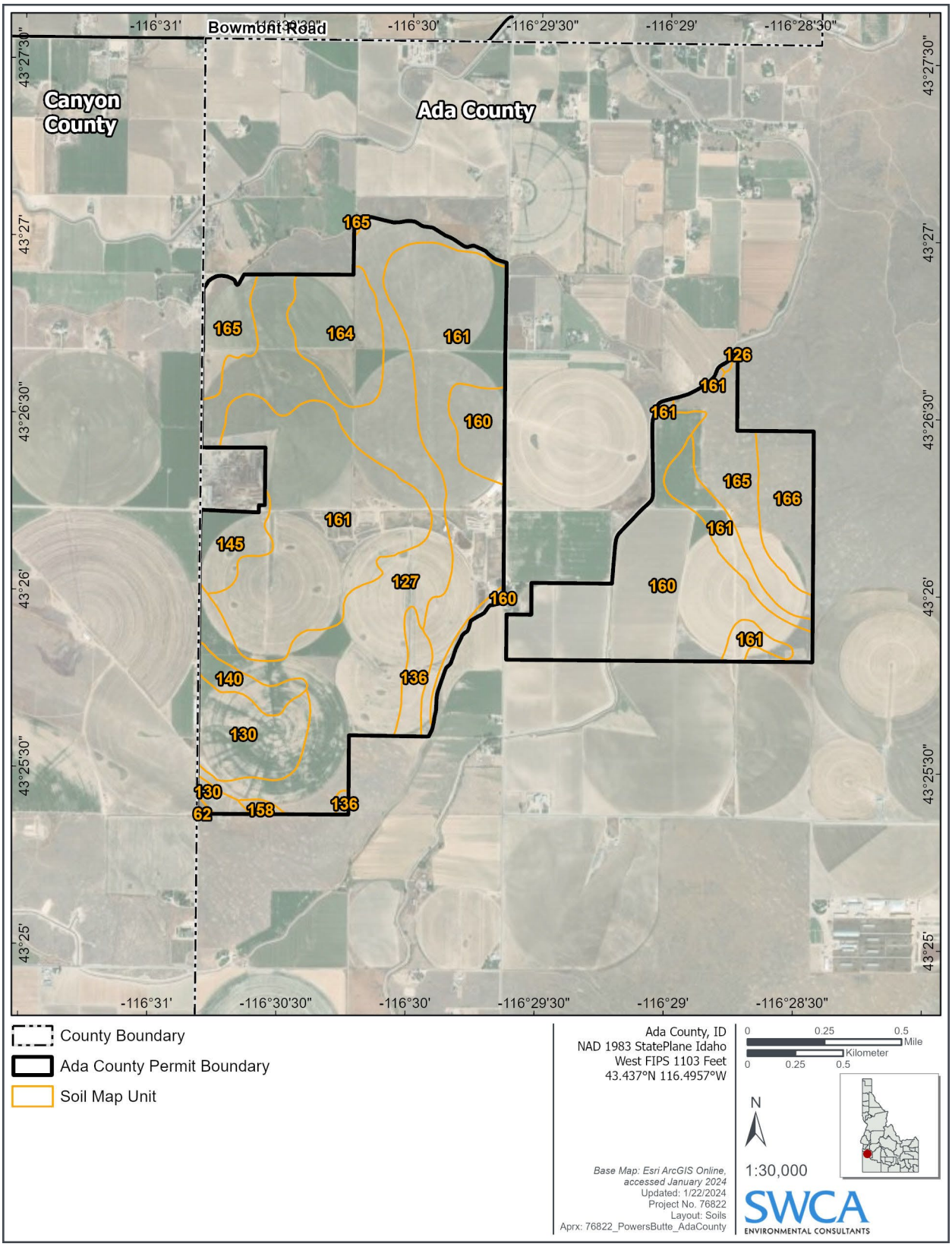

Figure 5. Ada County Permit Boundary soil map units (see also Table 4).

4.1.2.3 TOPOGRAPHY

The Project area is located on the Snake River Plain, a broad, flat depression that covers a large portion of southern Idaho. Topography in the Project area is varied, with slopes ranging from less than 5 percent to over 30 percent. Some localized areas of steeper slopes (greater than 30 percent) occur in the center of the Project area, but most of the site has slopes of less than 5 percent and is well suited to PV solar development. Figure 6 shows topography in the Project area with contours. Contours are also provided on the Site Plan Map (see Exhibit D). Development in the Project area will avoid steep slope areas (greater than 30 percent) in accordance with ACC 8-4. No project facilities will be constructed on slopes of 15% or greater. The Applicant will submit a final design plan set stamped by an engineer licensed in Idaho prior to construction as part of the building permit confirming that there will be no construction on slopes of 15% or more. The Applicant understands that if design would require construction on slopes 15% or greater, a hillside development permit will be required.

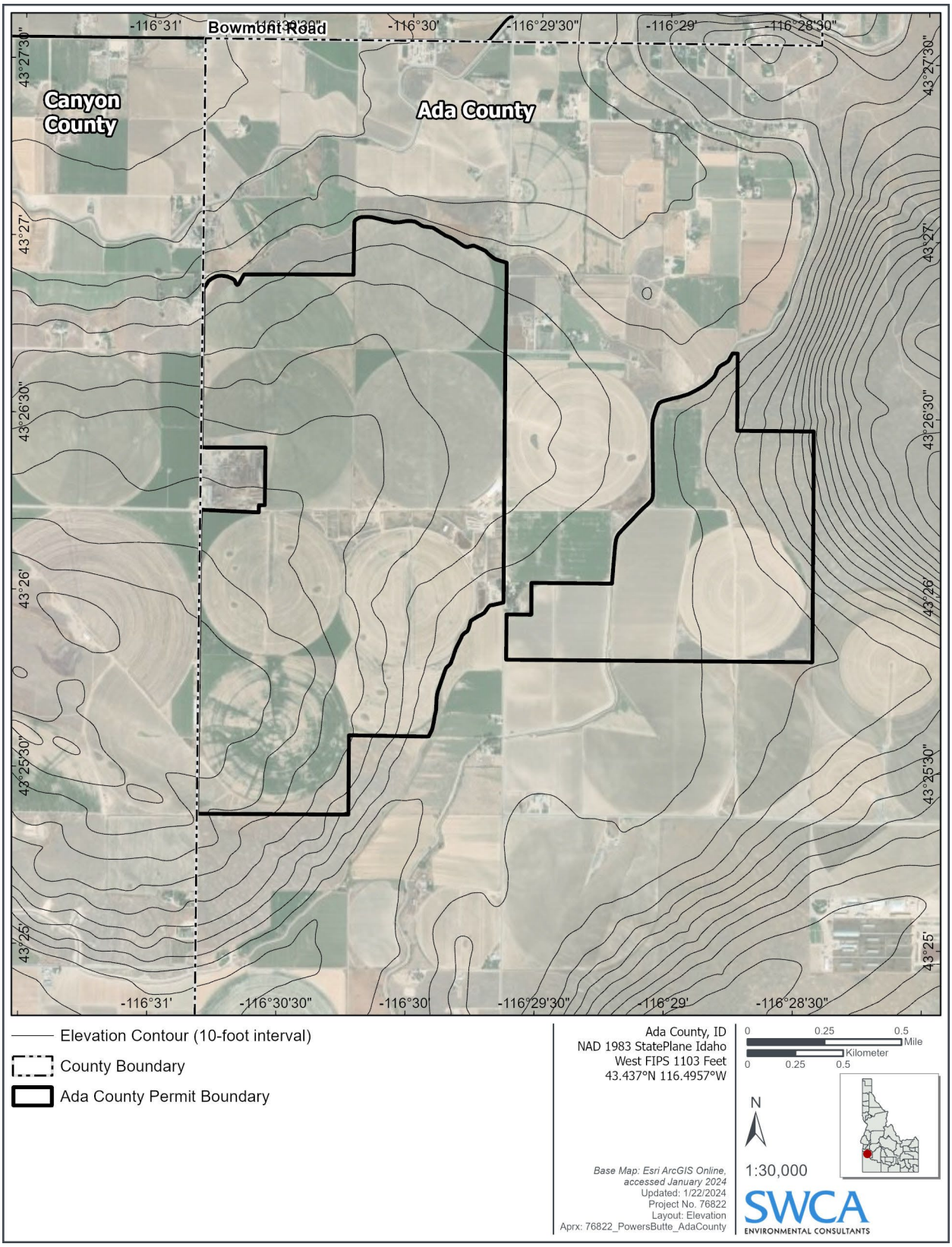

Figure 6. Ada County Permit Boundary topography.

4.1.2.4 VEGETATION

A desktop review of the USGS's National Land Cover Database (USGS 2019) indicates that the Ada County Permit Boundary area primarily consists of cultivated crop and herbaceous categories (Table 5, Figure 7) (see Exhibit L). Remaining land cover types make up less than 2% of the Project area (see Table 5). Field surveys of vegetation and habitats in the Project area were performed by qualified biologists between April 24 and 27, 2023, to inform the design and construction process (see Exhibit L). A vegetation management plan will be developed for implementation during Project construction and O&M. Any required mitigation measures for adverse impacts to sensitive vegetation species are being coordinated with IDFG, the Governor's Office of Species Conservation, and the Governor's Office of Energy and Mineral Resources.

Table 5. Land Cover in the Ada County Permit Boundary

Land Cover Category	Acreage in Permit Boundary	Percentage of Project Area
Cultivated crops	1,234.7	91.0%
Herbaceous	98.6	7.3%
Hay/pasture	13.7	1.0%
Developed, open space	5.1	0.4%
Developed, low intensity	2.3	0.2%
Shrub/scrub	1.6	0.1%
Open water	0.2	<0.1%
Developed, medium intensity	0.2	<0.1%
Total	**1,356.4**	**100.00**

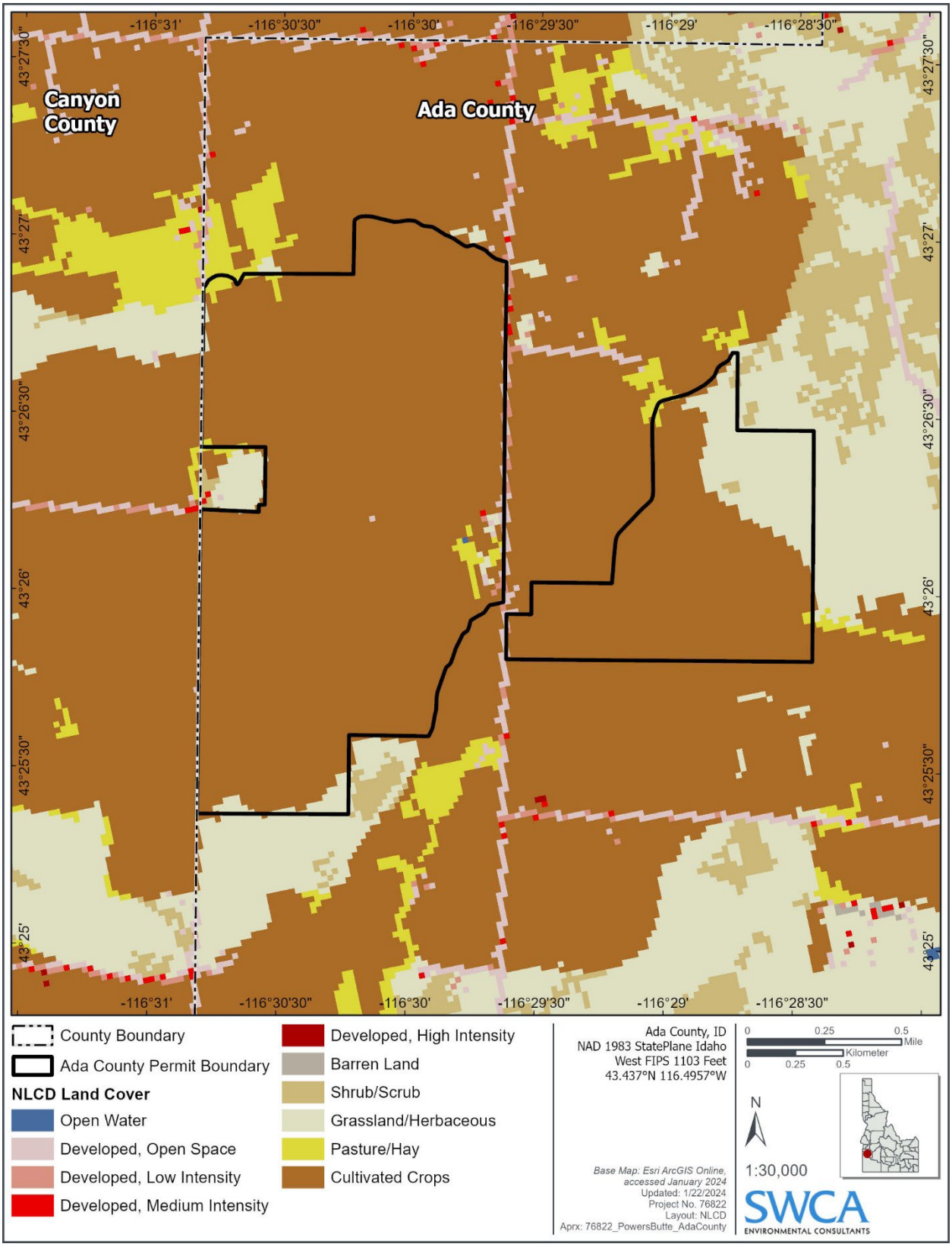

Figure 7. National Land Cover Database land cover types within the Ada County Permit Boundary.

4.1.2.5 SENSITIVE PLANT AND WILDLIFE SPECIES

A U.S. Fish and Wildlife (USFWS) Information for Planning and Consultation (IPaC) query found one candidate insect species for listing under the Endangered Species Act, monarch butterfly (*Danaus plexippus*), with potential to occur in or near the Project area. Additionally, several migratory bird species are likely to occur in the Project area (USFWS 2022). Based on a review of IDFG species data, no Endangered Species Act–listed wildlife species occur in Ada or Canyon Counties (IDFG 2022); there is no designated or proposed critical habitat for slickspot peppergrass (*Lepidium papilliferum*, an ESA-listed threatened species) in the Ada County Permit Boundary.

The *Ada County Comprehensive Plan* (Ada County 2023b) acknowledges the importance of sensitive wildlife and ecological areas in the county and encourages protection of wildlife and habitat but does not establish specific avoidance criteria or impact thresholds. The plan states that development within environmentally sensitive areas should be minimized and that development proposals adjacent to these areas will receive a higher level of scrutiny to minimize impacts. The plan establishes a goal to protect, manage, and enhance Ada County's diverse natural resources and wildlife habitats and outlines several strategies to achieve the goal, along with a priority ranking and lead and partner responsibilities.

Field surveys of the Project area were conducted between April 24 and 27, 2023, to evaluate habitat for slickspot peppergrass. No suitable habitat was observed within the Project area as the area lacks sagebrush steppe vegetation communities with patches of biological soil crust known as slickspots (SWCA 2023).

The Applicant has shared the results of its fieldwork with IDFG and is coordinating with the agency to help evaluate potential Project impacts, design strategies, best management practices, and strategies for avoidance and mitigation. A communication from IDFG is provided in Exhibit I as part of the CUP application per ACC 8-5-3-83B1C. Please refer to the exhibit for specifics on agency coordination.

4.1.2.6 HISTORIC RESOURCES

No historic resources are shown in the Project area on the Ada County historic resources inventory (Ada County 2023c). Based on a review of the Idaho State Historical Society and associated Idaho State Historic Preservation Office's (SHPO's) National Register of Historic Places (NRHP) database, there are no NRHP-listed resources or districts in the Project area (SHPO 2021). All workers with access to the Project site will receive training on cultural resource protection. In accordance with Idaho Statute Title 67, Chapter 41, 67-4121, "No person shall remove from the state of Idaho any part of any such ruins, pictographs, petroglyphs, relics, deposits, objects, specimens, or artifacts recovered from any such archaeological or vertebrate paleontological site or deposit without first obtaining the consent of the board of trustees of the Idaho State Historical Society."

4.1.2.7 HAZARDOUS AREAS

A desktop review of IDEQ's Waste Management and Remediation Division Facility Mapper (IDEQ 2021) shows one documented solid waste site at 7950 West Rose Lane, located across S. Can Ada Road at the northeastern corner of the Project area (in Canyon County). No documented waste sites exist within the Project area.

4.1.2.8 IMPACT TO NATURAL FEATURES

As much as possible, the Project components will be sited to avoid direct adverse impacts to natural features. Construction activities may generate short-term impacts to natural features, particularly in areas requiring earthmoving activities.

Mitigation measures for potential Project impacts are being developed in coordination with IDFG and other agencies and described in Section 4.1.4, Water Supply and Sewage Disposal and Section 4.1.5, Filling, Excavation, and Earthmoving.

4.1.2.9 VIEWSHEDS

A visual resources analysis of the Project area was conducted to assess impacts within viewsheds, adjacent properties, and public viewing areas. The visual resource simulations are provided in Exhibit N.

4.1.3 Drainage (ACC 8-4E-4F)

The Applicant has prepared a hydrology and flood inundation study for the Project area (see Exhibit M).

4.1.4 Water Supply and Sewage Disposal (ACC 8-4E-4G)

The Applicant envisions limited need for use of existing on-site wells for construction and O&M of the solar facility. During construction, water will be used for dust suppression. During O&M, PV panels may be washed up to two times per year using up to 5 to 10 acre-feet of water annually.

For potential agricultural operations, some irrigation for continued limited agriculture irrigation may be needed. There will be no septic/sewage from the solar facility in Ada County during Project construction or operations; therefore, the Project will not place a burden on existing water and sewer infrastructure. Portable sanitary stations will be used and maintained by a vendor during construction and operations.

4.1.5 Filling, Excavation, and Earthmoving (ACC 8-4E-4H)

During construction, soils will be disturbed by grading and excavating activities. The amount of land disturbance and vegetation removal will be minimized as much as possible through strategic siting of the Project footprint. Best management practices will be used in accordance with the required grading permit to mitigate potential impacts of soil erosion and fugitive dust. Soil and dust mitigation measures will be developed in coordination with Ada County after field studies for hydrology, drainage, soil, vegetation, and sensitive plant species are finished.

4.1.6 Historic Features (ACC 8-4E-4I)

The Applicant hired SWCA to perform an analysis of cultural resources, including historic features, as part of the natural features analysis. The Project will conserve and avoid identified historic features to the greatest extent possible and develop a standard procedure for notifying the applicable entities in the event a historic resource is exposed. All personnel will receive training on applicable laws and regulations pertaining to the protection of cultural resources and historic features.

4.1.7 Irrigation (ACC 8-4E-4K)

The Project area contains an estimated 15,080 feet of existing irrigation canals or ditches (see Exhibit L). Impacts to the existing canals and ditches will be avoided by the Project, except when the Applicant will obtain a crossing agreement and coordinate with the affected irrigation district to design a short bridge over a canal for site access if needed, alternatively, the future secondary access may be implemented.

4.1.8 Utilities (ACC 8-4E-4L)

The Project does not include a septic/sewage system or other utilities associated with residential buildings, commercial buildings, or other occupied dwellings. Where possible, electric cables associated with the Project will be located underground. Local electric utility service will be coordinated with Idaho Power. The final location and specifications of telecommunications facilities will be determined as part of the final design permit package. The Project includes a SCADA system to provide remote control of communications and to monitor energy generation within each solar array. The SCADA system will connect to the Project with a fiber-optic cable.

4.1.9 Maintenance (ACC 8-4E-4M)

The Applicant's SCADA system will monitor the Project and provide real-time control. Accordingly, the Applicant does not anticipate the need for full-time staff on-site, but up to four personnel will be needed for periodic maintenance. Site personnel will typically work between 7 a.m. and 8 p.m. (depending on task requirements) during a typical workday, unless circumstances at the facility require an alternate schedule. The Applicant's maintenance personnel will visit the facility on an as-needed basis, but no less than quarterly. Data from other solar facilities across the country indicate that panel washing may not be needed. If this is not the case, the PV panels may be washed multiple times per year to increase the average optical absorption of the panel surface. The water required for panel washing will be delivered to the Project from an off-site source. A maintenance plan for the facility will be developed as part of the final design.

4.1.10 Supplemental Information/Other Permits, Licenses, or Certifications (ACC 8-4E-4N)

The Applicant is proactively coordinating with Ada County staff and other applicable permitting agencies and will secure all necessary permits and approvals as part of the CUP application process in accordance with ACC 8-5-3-83B1c. Comments and information received from the director, county engineer, and other permitting and reviewing entities will be incorporated into the Project design to ensure compliance with the ACC and Article B of Conditional Uses (8-5B-5 – Required Findings).

In addition to requiring this CUP approval, the Project will require construction permits, licenses, and certifications. Construction permits will be obtained before construction begins and will be completed in coordination with contractors providing construction services. In addition to securing required building permits from Ada County, the Applicant may be required to secure permits and approvals from 1) ACHD, for access points and road improvements; 2) IDEQ, for a fugitive dust control plan; and 3) and an approved Stormwater Construction Permit from the National Pollutant Discharge Elimination System.

4.1.11 Alternative Site Development (ACC 8-4E-4O)

The Project will undergo additional studies, evaluations, and engineering reviews as are normally conducted for this type of project. A final design package will be submitted to Ada County with the building permit set.

4.1.12 Landscaping and Screening (ACC 8-4F)

Per ACC 8-4F-2, all landscape requirements may be waived or modified by the commission for conditional uses in the rural base district.

The master site plan and Exhibit N Visual Simulations present the 'worst case scenario' layout/fenceline, which depicts the solar array fenceline at the required zoning setbacks. However, it is anticipated that the fenceline may be further setback in some areas and that crops may be grown in those unfenced areas.Areas within the fenceline will be used for agriculture (the co-location of agriculture and solar generation is known as agrivoltaics).

An exhibit showing mapped well locations is attached; the locations will be confirmed before the building application submittals. The existing well locations will remain. However, the existing irrigation systems will be disassembled or altered for project construction. Irrigation is anticipated to be used for some of the agrivoltaics and continued agriculture use, although the layout of the irrigation system for agrivoltaics is still in development. Irrigation for agrivoltaics is anticipated to have a net reduction in water consumption that could help lower the risk of the ID Power Murphey Gage call demand on farmers' well use. The shade solar panels are also expected to improve the evapotranspiration (ET) and net irrigation requirements (NIR) for farming the site as well as reduce erosion.

Moreover, some of the site is barely or not visible from adjacent public roads and residences due to terrain and will remain pervious.

For these reasons, the Applicant requests the Director's approval of a modified landscaping plan that incorporates the site's agrivoltaics plan and, if needed, landscaping in specific areas of visibility such as from clusters of residences.

Please note that irrigation water is limited in the amounts and times it can be drawn, and therefore could be an unreliable source for fire suppression. The Applicant is coordinating with the fire authorities and will continue to coordinate with fire authorities in the development of a fire management plan including providing them with any information they may need as it pertains to potential water sources.

4.1.13 Signage (ACC 8-4I)

Signs will be needed during construction and will be primarily related to traffic control. Given this, they are exempt from Ada County approval per ACC 8-4I-3. Project facilities will not be used for advertisements, except for reasonable identification of affiliated construction companies, facility operators, etc. The Applicant will ensure all temporary signs are removed in accordance with permit

requirements. Signs unrelated to construction and traffic, if any, will be sited according to ACC 8-4I standards. Signs associated with the Project will also comply with applicable guidelines from the Idaho Department of Transportation.

4.1.14 Lighting (ACC 8-4H)

The Applicant will prepare a lighting plan in conformance with ACC 8-4H. The Applicant will submit a lighting plan as part of the building plans. The lighting plan will show the location, orientation, and height of all proposed (attached and detached) exterior light fixtures and will detail the type of lighting, setbacks, and illumination. Shielding will be provided with the goal of minimizing negative impacts to night skies during Project construction and O&M. Permanent lighting may not be required in the Ada County Permit Boundary. When feasible, only vehicle-mounted lights will be used for night maintenance activities.

4.2 Detailed Letter for Requested Lot Coverage Variance (ACC 8-7-4)

This detailed letter is provided to accompany the Applicant's request for a Lot Coverage Variance. The variance checklist (see Exhibit E) is included in this application. A variance request is being submitted because the Project's electrical equipment and solar panels will cover more than 5% of the total area in the RR district in the Ada County Permit Boundary. Accordingly, the Applicant requests a variance for lot coverage such that the calculation of lot coverage excludes the panel area from the lot coverage calculation.

4.2.1 Reason for Variance

This variance is requested because solar facilities differ from other types of development in several significant ways:

1. A solar facility's lot coverage varies throughout the day as the single-axis solar tracking systems rotate the solar panels to move with the sun to provide an optimal angle for solar energy production.
2. The soil beneath the solar panels remains in a natural state that is permeable to rain and surface water. In typical, non-solar developments, concrete, asphalt or other impervious surfaces cover a large portion of a project area, altering soil permeability and hydrology in the watershed. Accordingly, solar facilities have significantly less impact to soil permeability because soils beneath the panels are able to continue to absorb water because they are not altered from their natural state. Additionally, the site will remain vegetated which will help increase water infiltration and reduce stormwater runoff.
3. The design and layout of the solar facility mimics that of a disconnected impervious surface. This is the practice of directing stormwater runoff from built-upon areas to properly sloped and vegetated pervious surfaces. Both roofs and paved areas can be disconnected with slightly differing designs. Additionally, the spacing of solar arrays meets the requirements that have been set in other states to not be considered impervious. In general, the minimum disconnection length between two rows of solar panels is equal to the width of each row.
4. The Project has a fixed term of operation (a long-term temporary use). After operations have ceased, the Project site will be decommissioned in accordance with the decommissioning plan and the ground will be returned to its natural state (see Section 3.10).

4.2.2 Idaho Code 67-6516

The Applicant will be subject to undue hardship if this variance request is not granted because of the characteristics of the site and the use. As mentioned above, solar project use is substantively different in type of form from other seemingly related uses due to the variation in lot coverage throughout the day, the permeability of the soil beneath the arrays, and the temporary use. Further, lot coverage variances have been granted to other applicants developing solar facilities in Ada County for similar reasons. The lot coverage variance will allow the Project to advance in the public's interest to develop renewable energy and to provide a reliable source of electricity to Idaho and regional customers.

In accordance with Idaho Code 67-6516 and ACC 8-7A, adjacent property owners were notified about the Project and were able to provide comments at a neighborhood meeting in advance of the Ada County public hearing and application submittal (see Exhibit F). They will also be notified of the public hearing through Ada County's public hearing process and will have the opportunity to attend and be heard. The Applicant also created a Project website (powersbutteenergycenter.com) that provides information about the Project and an option to provide comments.

This request for a Lot Coverage Variance does not create a right or special privilege to the Applicant. Lot Coverage Variances have been granted to other applicants developing solar farms in Ada County for similar reasons.

A Lot Coverage Variance will relieve an undue hardship. A utility-scale solar PV facility is not feasible to build with a lot coverage requirement of 5% or lower if the solar panel area is considered in the lot coverage calculation. If this variance is denied, the Project design would be severely limited in its ability to cost-effectively generate renewable energy for regional customers and would no longer be economically feasible to build. The *Ada County Comprehensive Plan* (Ada County 2023b) fully supports the development of renewable energy projects such as the solar project described in this application.

A Lot Coverage Variance will not be detrimental to public health, safety, or welfare. The use of steel pile foundations to keep the panels and inverters above the ground allows water to percolate into native soils and flow across the Project site with minimal impact to soil permeability and the land's natural hydrological patterns and habitats. As such, it will have minimal impact on natural surface water flows and flooding.

A Lot Coverage Variance will not be detrimental to public services in that once the Project is operational. It will not pose a burden to public services, including safety, fire, traffic, utilities, or schools. Moreover, the Project tax encumbrance will provide increased funding for public services while not increasing the burden on these services.

A Lot Coverage Variance is in the public interest because the Project supports the renewable energy goals of the *Ada County Comprehensive Plan*, as described in Focus Area 5: Sustainable Practices and Resiliency (Ada County 2023b):

> **Goal 5.1.** Promote clean air and lower greenhouse gas emissions.
>
> - Investing in clean solar energy can grow Idaho's economy and protect and potentially improve air quality by emitting less potential air pollutants over the long term when compared to carbon-based energy generation sources (e.g., fossil fuels).
>
> **Policy 5.1.c.** Renewable energy. Continue to support opportunities to develop local renewable energy facilities—whether in conjunction with County facilities (e.g., landfill gas to energy projects, rooftop solar), or as part of private developments, as appropriate.

- The Project will help provide renewable energy to the Treasure Valley region and will contribute to Idaho Power's statewide initiative of providing 100% clean energy by 2045.

Goal 5.3. Promote the use of sustainable practices in public/private development and County operations.

- The Project will help provide sustainable, renewable energy, and the Applicant proposes to use agrivoltaic operations that may help with water infiltration and long-term sustainability.

Policy 5.3c. Renewable energy. Encourage the siting of solar, wind, hydrothermal, and other renewable energy facilities in Ada County as consistent with the goals and policies of this plan.

- The Project will help decarbonize the energy grid in Idaho by providing a clean, renewable energy source.

Goal 5.6. Coordinate with providers to develop plans for energy services and public utility facilities for the long-term energy and utility needs of Ada County.

- The Project will contribute to Idaho Power's statewide initiative of providing 100% clean energy by 2045.

Policy 5.6b. Renewable energy resources. Encourage the enhancement of the capacity and reliability of renewable energy resources.

- The Project will help diversify the regions' sources of energy while contributing to Idaho Power's statewide initiative of providing 100% clean energy by 2045.

Finally, a Lot Coverage Variance is appropriate in that the proposed solar facility is a suitable use of land given the adjacent land uses and less than desirable suitability of the land for agriculture.

4.2.3 Neighborhood Meeting Certification

A copy of the neighborhood meeting certification form per ACC 8-7A-3 is attached as Exhibit F. The neighborhood meeting was held on a weekday (Thursday, October 26, 2023) from 6 p.m. to 8 p.m. at the American Legion Hall, 304 4th Street, Melba, Idaho 83641.

4.2.4 Property Deeds

Copies of all property deeds associated with the parcel numbers are included in Exhibit G.

4.2.5 Pre-application Conference Notes

The pre-application conference notes for the meeting held with Ada County staff on March 23, 2023, are included in this application (see Exhibit H).

4.2.6 Public Hearing Notification

In conformance with ACC 8-7A-5F, the Applicant will follow the public notification requirements for the posting of a public hearing notice for this application, posting all required signage at least 10 days before the public hearing. Proof of posting will be provided. A certification of sign posting and a dated

photograph of each sign(s) posted will be submitted to the director no later than 7 days prior to the public hearing.

5 PRE-HEARING REQUIREMENTS

5.1 Neighborhood Meeting

Per the requirements of Idaho Code 67-6516 and ACC 8-7A, a neighborhood meeting was held from 6 p.m. to 8 p.m. October 26, 2023, at the American Legion at Melba, Idaho. Written notice was provided to all property owners or purchasers of record owning property within 1,000 feet of the exterior boundary of the Project's Ada County Permit Boundary. Exhibit F provides documentation of the neighborhood meeting and Ada County Neighborhood Meeting Sign-up Sheet.

5.2 Agency Consultations and Communications

The Applicant is continuing to consult with required agencies as part of this CUP application in accordance with local, state, and federal laws and regulations. The list of consulted agencies includes the Federal Energy Regulatory Commission, Federal Aviation Administration, National Guard, Mountain Home Air Force Base, Idaho Division of Aeronautics, Boise Airport director, Idaho Public Utilities Commission, Idaho Power, IDFG, USFWS, Idaho Department of Water Resources, IDEQ, Ada County Emergency Management & Community Resilience, Idaho Bureau of Homeland Security Public Safety Communications section, and the Melba Rural Fire Protection District. The Ada County Permit Boundary is not located within an Area of City Impact.

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