Canyon County, ID Web Map



2/7/2024, 8:57:32 AM





Canyon County, ID

Bureau of Land Management, State of Oregon, State of Oregon DOT, State of Oregon GEO, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, EPA, USDA | Nampa GIS | City of Nampa |

EXHIBIT A

Conditional Use Permit Checklist



CONDITIONAL USE PERMIT

PUBLC HEARING - CHECKLIST

CONDITIONAL USE PERMIT - CCZO Section 07-07-05

THE FOLLOWING ITEMS MUST BE SUBMITTED WITH THIS APPLICATION TO BE DEEMED COMPLETE (PLEASE CHECK OFF THE ITEMS REQUIRED):

Description	Applicant	Staff
Master Application completed and signed	Exhibit B	
Letter of Intent (see standards on next page)	3.0	
Site Plan (see standards on next page)	2.1, Exhibit D	
Land Use Worksheet	Exhibit C	
Neighborhood Meeting sheet/letter completed and signed	Exhibit H	
Proof of application/communication with (varies per application):	Exhibit L	
Southwest District Health		
Irrigation District		
Fire District		
Highway District/ Idaho Transportation Dept.		
Area of City Impact		
Deed or evidence of property interest to the subject property	Exhibit G	
Fee: \$950.00		
\$600.00 (CUP Modification)		
Fees are non-refundable		

An application that requires additional Use Standards per Chapter 7, Article 14 of the Canyon County Code:

- □Contractor Shop
- □ Mineral Extraction (Long Term)
- ⊠Wind-Farm Solar Farm
- \Box Staging Area
- \Box Manufacturing or processing of hazardous chemicals or gases
- □ Ministorage Facility
- *If applicable, review the Additional Use Standards Below, if not applicable, please disregard them.

*DISCLAIMER: The subject property shall be in compliance with the public nuisance ordinance, the building code and the zoning code before the Director can accept the application.

STANDARDS

SITE/OPERATION PLAN – CCZO Section 07-02-03

A scaled drawing showing:

- The parcel and all existing and proposed uses and structures and roads all with dimensions, distances, and private and public road names.
- Includes lot lines, lot area, parking spaces, private roadways, walkways, topographic features, reserved open space, buildings and other structures, major landscape features, and the location of proposed utility easements.

A plan of action to include:

- Time requirements, the commencement of the operation, hours of operation, noise levels, dust levels, air and water quality, raw material delivery, finished product and marketing, site improvements, public and private facilities, public amenities, and infrastructure.

LETTER OF INTENT – CCZO Section 07-07-05

State the nature of the request. Include, a description of business operations, such as a number of employees, hours of operation, delivery and shipping.

Consistency with the Comprehensive Plan (CCZO Section 07-07-05(3))

Address potential impacts to property in the immediate vicinity and character of the area (CCZO Section 07-07-05(4))

Demonstrate how facility and utilities such as water, sewer, irrigation, drainage and stormwater drainage, will be provided.

Demonstrate legal access

Address potential impacts to existing or future traffic patterns.

Address potential impacts to essential services such as schools, irrigation facilities and emergency services.

If the use will create impacts, provide measures to mitigate impacts.

CONTRACTOR SHOP (07-14-09) - REQUIRED	Applicant	Staff
Demonstrate how the use will be contained within a building or		
behind a sight-obscuring fence.		

MINERAL EXTRACTION (07-14-19) - REQUIRED	Applicant	Staff
Show how the 30' setbacks on all sides will be met.		
Name of operator/extractor		
Duration of proposed use: Commencement & Completion dates		
Provide an approved reclamation from Idaho Dept. Of Lands		
Location of proposed pits and accessory uses		

WIND FARM (07-14-33) - REQUIRED	Applicant	Staff
Need to include on the site plan: lot size, configuration, proximity to structures, topography, viewsheds.	Exhibit D	

MINISTORAGE FACILITY (07-14-29) - REQUIRED	Applicant	Staff
Demonstrate how materials will not be sold or delivered to customers		
directly from the storage compartment.		



CONDITIONAL USE PERMIT PUBLIC HEARING - MASTER APPLICATION

	OWNER NAME:	Stephen E. Beus and Becky A. Beus
PROPERTY MAILING ADDRESS: 1605 Poen Road. Kuna, ID 83634		1605 Poen Road. Kuna, ID 83634
OWNER	PHONE:	EMAIL:
I consent to th inspections. If	is application and allow I the owner(s) is a busines those that indicate th	DSD staff / Commissioners to enter the property for site ss entity, please include business documents, including he person(s) who are eligible to sign.
Signature:	That Bues	Beckyli BerDete: 1/18/24

	APPLICANT NAME: Mitchell Taylor
APPLICANT: IF DIFFERING FROM THE PROPERTY	COMPANY NAME: Powers Butte Energy Center, LLC
	MAILING ADDRESS: 22 Admiral Boulevard. Kansas City, MO 64106
OWNER	PHONE: 801-641-3985 EMAIL: mtaylor@savionenergy.com

	STREET ADDRESS:		
	PARCEL NUMBER:	R284760	200, R2847901400
SITE INFO	PARCEL SIZE:		
	REQUESTED USE:		
	FLOOD ZONE (YES/NO)	No	ZONING DISTRICT: Agricultural

FOR DSD STAFF COMPLETION ONLY:

CASE NUMBER	DATE RECEIVED	
RECEIVED BY:	APPLICATION FEE:	CK MO CC CASH



CONDITIONAL USE PERMIT PUBLIC HEARING - MASTER APPLICATION

	OWNER NAME: Powers B	utte Energy Center, LLC
PROPERTY OWNER	MAILING ADDRESS: 422 Admiral Boulevard, Kansas City, MO 64106	
	PHONE: 801-641-395	EMAIL: mtaylor@savionenergy.com
I consent to this	application and allow DSD staff	/ Commissioners to enter the property for site
inspections. If the	he owner(s) is a business entity,	please include business documents, including
	_ those that indicate the person	(s) who are eligible to sign.
Signature:	27441	Date: 1 18 24

	APPLICAN	T NAME:	Mitchell	Taylor	
APPLICANT: IF DIFFERING	COMPANY	NAME:	Power	s Butte En	ergy Center, LLC
FROM THE PROPERTY	MAILING A	DDRESS:	22 Ad	Imiral Boule	evard. Kansas City, MO 64106
OWNER	PHONE:	801-641-39	985	EMAIL:	mtaylor@savionenergy.com

	STREET ADDRESS:
	PARCEL NUMBER: R28467010, R2847500000
SITE INFO	PARCEL SIZE:
	REQUESTED USE:
	FLOOD ZONE (YES/NO) No ZONING DISTRICT: Agricultural

FOR DSD STAFF COMPLETION ONLY:

CASE NUMBER	DATE RECEIVED:	
RECEIVED BY:	APPLICATION FEE:	CK MO CC CASH

EXHIBIT B

Master Application Form with Signatures

MASTER APPLICATION

CANYON COUNTY DEVELOPMENT SERVICES DEPARTMENT 111 North 11th Avenue, #310, Caldwell, ID 83605

zoninginfo@canyoncounty.id.gov Phone: 208-454-7458 Fax: 208-454-6633



the second se		
	OWNER NAME: Stephen E. Beus and Becky A. Beus	
PROPERTY	MAILING ADDRESS: 1605 Poen Road. Kuna, ID 83634	
OWNER	PHONE: EMAIL:	
I consent to this	s application and allow DSD staff / Commissioners to enter the property for site inspections. If owner(s) are a busing places include business desuments includes these that indicate the person(c) who are eligible to sign	ess entity,
Signature:	typen E Burs Becky Bursone: 1/18/24	<i>/</i>
(AGENT)	CONTACT NAME:	
ARCHITECT	COMPANY NAME:	
ENGINEER BUILDER	MAILING ADDRESS:	
	PHONE: EMAIL:	
	STREET ADDRESS:	
SITE INFO	PARCEL #: See Exhibit F, List of Parcels LOT SIZE/AREA:	
	LOT: BLOCK: SUBDIVISION:	
	QUARTER: SECTION: See Exhibit E. TOWNSHIP: RANG	GE:
	ZONING DISTRICT: Agricultural FLOODZONE (YES/NO): NO	
HEARING	CONDITIONAL USECOMP PLAN AMENDMENTCONDITIONA	AL REZONE
LEVEL	ZONING AMENDMENT (REZONE)DEV. AGREEMENT MODIFICATIONVARIANCE	> 33%
APPS	MINOR REPLATVACATIONAPPEAL	
	SHORT PLAT SUBDIVISION PRELIMINARY PLAT SUBDIVISIONFINAL PLAT SU	IBDIVISION
DIRECTORS	ADMINISTRATIVE LAND DIVISIONEASEMENT REDUCTIONSIGN	PERMIT
DECISION	PROPERTY BOUNDARY ADJUSTMENTHOME BUSINESSVARIA	NCE 33% >
APPS	PRIVATE ROAD NAMETEMPORARY USEDAY 0	CARE
	OTHER	
CASE NUMBE	BER: DATE RECEIVED:	
RECEIVED BY	Y: APPLICATION FEE: CK MO (CC CASH

MASTER APPLICATION

CANYON COUNTY DEVELOPMENT SERVICES DEPARTMENT

111 North 11th Avenue, #310, Caldwell, ID 83605

zoninginfo@canyoncounty.id.gov Phone: 208-454-7458 Fax: 208-454-6633



	OWNER NAME: Powers Butte Energy Center, LLC
PROPERTY	MAILING ADDRESS: 422 Admiral Boulevard, Kansas City, MO 64106
OWNER	PHONE: 801-641-3985 EMAIL: mtaylor@savionenergy.com
I consent to this	application and allow DSD staff / Commissioners to enter the property for site inspections. If owner(s) are a business entity, please include business documents, including those that indicate the person(s) who are eligible to sign. Date:
(AGENT)	CONTACT NAME:
ARCHITECT	COMPANY NAME:
ENGINEER BUILDER	MAILING ADDRESS:
	PHONE: EMAIL:
	STREET ADDRESS:
SITE INFO	PARCEL #: See Exhibit F, List of Parcels LOT SIZE/AREA:
	LOT: BLOCK: SUBDIVISION:
	QUARTER: SECTION: See Exhibit E. TOWNSHIP: RANGE:
	ZONING DISTRICT: Agricultural FLOODZONE (YES/NO): No
HEARING LEVEL APPS	XCONDITIONAL USE COMP PLAN AMENDMENT CONDITIONAL REZONE ZONING AMENDMENT (REZONE) DEV. AGREEMENT MODIFICATION VARIANCE > 33% MINOR REPLAT VACATION APPEAL SHORT PLAT SUBDIVISION PRELIMINARY PLAT SUBDIVISION FINAL PLAT SUBDIVISION
DIRECTORS	ADMINISTRATIVE LAND DIVISION FASEMENT REDUCTION SIGN PERMIT
DECISION	PROPERTY BOUNDARY ADJUSTMENTHOME BUSINESSVARIANCE 33% > PRIVATE ROAD NAMETEMPORARY USEDAY CARE OTHER
CASE NUMBE	ER: DATE RECEIVED:
RECEIVED BY	: APPLICATION FEE: CK MO CC CASH

SECRETARY'S CERTIFICATE

January 18, 2024

The undersigned for and on behalf of Powers Butte Energy Center, LLC, a Delaware limited liability company ("<u>Powers Butte</u>"), and its sole member, Savion, LLC, a Delaware limited liability company ("<u>Member</u>"), and not in his individual capacity and without personal liability therefore, does hereby certify to the following:

1. The undersigned is the Secretary of Powers Butte and its sole Member.

2. Adam Williams is an "Authorized Person" of Powers Butte who is authorized to execute and submit any and all documents, certifications, and agreements on behalf of Powers Butte in connection with its application for a conditional use permit (or similar permits), including submissions required by Ada County, Idaho and Canyon County, Idaho.

IN WITNESS WHEREOF, the undersigned, has made and executed this certificate on the date shown above.

By: John Larigan John Larigan, Secretary

EXHIBIT C

Land Use Worksheet

LAND USE WORKSHEET					
PLEASE CHECK ALL THAT APPLY TO YOUR REQUEST:					
	GENERAL INFORMATION				
1.	DOMESTIC WATER: VIndividual Domestic Well Centralized Public Water System City				
⊄	N/A – Explain why this is not applicable: _ Well already exists and provides sufficient water for project needs				
	How many Individual Domestic Wells are proposed? No new well proposed, see above				
2.	SEWER (Wastewater) 🗸 Individual Septic 🗆 Centralized Sewer system				
	N/A – Explain why this is not applicable:				
3.	IRRIGATION WATER PROVIDED VIA:				
	Surface V Irrigation Well None				
4.	IF IRRIGATED, PROPOSED IRRIGATION:				
	Pressurized Gravity To be determined based on proposed agrivoltaic operation needs				
5.	ACCESS:				
	Frontage Easement widthInst. #				
6.	INTERNAL ROADS:				
	Public Private Road User's Maintenance Agreement Inst #				
7.	FENCING Fencing will be provided (Please show location on site plan)				
	Type: wire mesh or chain link with barbed wire Height: 7 feet				
8.	STORMWATER: 🗸 Retained on site 🗆 Swales 🗸 Ponds 🖌 Borrow Ditches				
	□ Other:				
9.	SOURCES OF SURFACE WATER ON OR NEARBY PROPERTY: (i.e. creeks, ditches, canals, lake)				
	4 human-made ponds, 7 canals				

RESIDENTIAL USES				
1. NUMBER OF LOTS REQUESTED:				
□ Residential □ Commercial □ Industrial				
Common Non-Buildable				
2. FIRE SUPPRESSION:				
□ Water supply source:				
3. INCLUDED IN YOUR PROPOSED PLAN?				
Sidewalks Curbs Gutters Street Lights None				
NON-RESIDENTIAL USES				
1. SPECIFIC USE: Solar Farm				
2 DAXE AND LIQUES OF OPERATION. Operation and maintenance hours below with occasional need				
2. DAYS AND HOURS OF OPERATION: need for night maintenance as required				
$\mathbf{\nabla} \text{Tuesday} \mathbf{\nabla} \text{Tuesday} \mathbf{\nabla} $				
∇ Tuesday to				
∇ Wednesday _7 to _7				
$\mathbf{Z} \text{Tridey} \qquad \qquad$				
∇ Filday to				
∇ Saturday _7 to _7				
$\mathbf{\nabla}$ Sunday to				
3. WILL YOU HAVE EMPLOYEES? V Yes If so, how many? 4 maximum D No				
4. WILL YOU HAVE A SIGN? ♥ Yes □ No □ Lighted □ Non-Lighted				
Height: ft Width: ft. Height above ground: ft				
What type of sign:WallFreestandingOther Details will be provided with building plan				
5. PARKING AND LOADING: How many parking spaces?4				
Is there is a loading or unloading area? Yes, near the Operations and Maintenance Building				

ANIMAL CARE-RELATED USES				
1.	1. MAXIMUM NUMBER OF ANIMALS:			
2.	HOW WILL ANIMALS BE HOUSED AT THE LOCATION?			
3.	HOW DO YOU PROPOSE TO MITIGATE NOISE?			
4.	ANIMAL WASTE DISPOSAL Individual Domestic Septic System Other:			





EXHIBIT E

Legal Description of the Canyon County Permit Boundary

Commitment No. NCS-1160842-WA1

EXHIBIT A

Borah Peak

The Land referred to herein below is situated in the County of Ada, State of Idaho, and is described as follows:

PARCEL 1:

THE SOUTH HALF OF THE NORTHWEST QUARTER, THE NORTHEAST QUARTER OF THE NORTHWEST QUARTER AND THE NORTHEAST QUARTER OF SECTION 12, TOWNSHIP 1 NORTH, RANGE 2 WEST, BOISE MERIDIAN, CANYON COUNTY, IDAHO.

File No. 651141 Stephen E. Beus and Becky A. Beus, husband and wife

Exhibit 'A'

Parcel 2

A parcel of land situated within the South Half of Section 12, Township 1 North, Range 2 West, Boise Meridian, Canyon County, Idaho, more particularly described as follows:

Commencing at a found 5/8" Rebar with Aluminum cap marking the West Quarter Corner of said Section 12 (CP&F No. 2009021355) from which a 5/8" Rebar, PLS 7732, marking the East Quarter corner of said Section 12 (CP&F No. 107115393) bears, South 89°28'17" East, 5290.31 feet; thence along the West boundary of said Section 12, South 00°41'08" West, 25.00 feet to the South right-of-way line of Rose Lane as described in a Deed, recorded as Instrument No. 583951, Records of Canyon County, Idaho, and the REAL POINT OF BEGINNING;

thence along said South right-of-way line, South 89°28'17" East, 5,290.32 feet to the East boundary of said Section 12;

thence along said East boundary, South 00°39'40" West, 92.08 feet;

thence leaving said East boundary, North 88°39'34" West, 766.91 feet;

thence South 01°20'26" West, 255.62 feet;

thence South 88°39'34" East, 769.95 feet to the East boundary of said Section 12;

thence along said East boundary, South 00°39'40" West, 2,273.45 feet to a 5/8' Rebar, PLS 7732, marking the Southeast corner of said Section 12 (CP&F No. 107115392);

thence along the South boundary of said Section 12, North 89°29'00" West, 5,291.44 feet to a found Brass Cap marking the Southwest corner of said Section 12 (CP&F No. 200668379);

thence along the West boundary of said Section 12, North 00°41'08" East, 2,622.28 feet to the REAL POINT OF BEGINNING.

EXCEPTING THEREFROM

A parcel of land situated within the Northwest Quarter of the Southwest Quarter of Section 12, Township 1 North, Range 2 West, Boise Meridian, Canyon County, Idaho, more particularly described as follows:

Commencing at a found 5/8' Rebar with Aluminum cap marking the West Quarter Corner of said Section 12 (CP&F No. 2009021355) from which a 5/8" Rebar, PLS 7732, marking the East Quarter corner of said Section 12 bears, South 89°28'17" East, 5290.31 feet; thence along the West boundary of said Section 12, South 00°41'08" West, 17.11 feet to the centerline of a paved road; thence along said centerline, South 88°39'34" East, 176.83 feet;

thence leaving said centerline, South 01°20'26" West, 25.00 feet to the REAL POINT OF BEGINNING;

thence South 88°39'34" East, 330.02 feet; thence South 00"41'08M West, 330.02 feet; thence North 88°39'34" West, 330.02 feet; thence North 00°41'08" East, 330.02 feet to the REAL POINT OF BEGINNING.

Parcel 3

A portion of Section 13, Township 1 North, Range 2 West of the Boise Meridian, Canyon County, Idaho and more particularly described as follows:

BEGINNING at a bass cap marking the Northwest corner of said Section 13; thence South 89°29'00" East, 5,291.44 feet to the Northeast corner of said Section 13; thence South 00°39'39" West, 2,646.28 feet to the East Quarter corner of said Section 13; thence South 00°35'48" West, 1,325.46 feet to the South 1/16 corner of said Section 13; thence on the South boundary line of the North Half of the Southeast Quarter of said Section 13, North 89°26'00" West, 1,525.92 feet; thence leaving said South boundary line, North 00°34'00" East, 1,324.56 feet to the East-West centerline of said Section 13; thence on said East-West centerline, North 89°28'02" West, 1,868.40 feet; thence leaving said East-West centerline, North 47°02'23" West, 1,867.62 feet; thence North 89°28'04" West, 514.21 feet to the West boundary line of said Section 13; thence on said West boundary line, North 00°37'34" East, 1,384.79 feet to the REAL POINT OF BEGINNING.

Powers Butte (formerly HWHL, LLC)

A portion of the East half of Section 11, Township 1 North, Range 2 West, Boise, Meridian, Canyon County, Idaho, described as follows:

Beginning at the East quarter corner of said Section 11, marked by a brass cap monument, and as described in Corner Perpetuation Record, Instrument No. 9600352;

Thence along the East line of said Section 11, South 00°08'50" West, 268.00 feet;

Thence North 89°51'10" West, 420.00 feet, to a set 5/8 inch rebar with a plastic cap marked "TVEI PLS 10782", hereafter referred to simply as a set 5/8 inch rebar;

Thence South 00°08'50" West 232.00 feet, to a set 5/8 inch rebar;

Thence South 89°51' 10" East 420.00 feet to a point on the East line of said Section 11;

Thence along said East line, South 00°08'50" West 823.63 feet to the Southeast corner of the Northeast quarter of the Southeast quarter (South 1/16 corner);

Thence along the South line of said Northeast quarter of the Southeast quarter, North 89°41'10" West, 1320.52 feet to the Southwest corner of the Northeast quarter of the Southeast quarter (Southeast 1/16 corner) marked by a 5/8 inch rebar as described in Corner Perpetuation Record, Instrument No. 991946;

Thence along the South line of the Northwest quarter of the Southeast quarter, North 89°40'09" West, 1320.51 feet, to the Southwest corner of said Northwest quarter of the Southeast quarter (Center-South 1/16 corner) marked by a 5/8 inch rebar as described in Corner Perpetuation Record, Instrument No. 991945;

Thence along the West line of said Northwest quarter of the Southeast quarter, North 00°10'25" East 1323.05 feet, to the center quarter corner of Section 11, marked by a 5/8 inch rebar as described in Corner Perpetuation Record, Instrument No. 887006;

Thence along the East-West centerline of said Section 11, South 89°41 '25" East 440.09 feet, to a found half inch rebar;

Thence North 00°09'48" East 660.00 feet, to a found half inch rebar;

Thence South 89°41'25" East 1540.17 feet, to a found Idaho Power Company Brass Cap;

Thence South 00°09'00" West 660.00 feet, to a found Idaho Power Company Brass Cap on the East-West centerline of said Section 11;

Thence along said centerline South 89°41 '25" East 660.00 feet, to the POINT OF BEGINNING.

EXHIBIT F

List of Parcels in the Canyon County Permit Boundary

Parcel No.	Address	City, State, Zip Code	Zoning	Section
R28467010 0	Southside Boulevard	Melba, Idaho 83641	AG	01N02W11
R2847500000	Rose Lane	Kuna, Idaho 83634	AG	01N02W12
R2847601200	Rose Lane	Kuna, Idaho 83634	AG	01N02W12
R2847901400	Southside Boulevard	Melba, Idaho 83641	AG	01N02W13

EXHIBIT G

Property Deeds for the Canyon County Permit Boundary

ADA COUNTY RECORDER Christopher D. Rich 2018-044722 BOISE IDAHO Pgs=4 VICTORIA BAILEY 05/16/2018 02:56 PM SILVER B

AMOUNT:\$15.00

验出部

RECORDING REQUESTED BY AND WHEN RECORDED RETURN TO:

Wm. Lyman Belnap Belnap Legal, PLLC 12554 W. Bridger, Ste. 120 Boise, ID 83713

GRANT DEED

For the consideration of ten dollars (\$10.00) and other good and valuable consideration, the receipt of which is hereby acknowledged, Beus Land & Cattle, LLC, an Idaho limited liability company ("Grantor"), grants, bargains, sells and conveys to Stephen E. Beus and Becky A. Beus, husband and wife ("Grantees"), whose current address is 1605 E. Poen Road, Kuna, ID 83634, and their heir, devisees, legal representatives, successors and assigns forever, the real property described on Exhibit A attached hereto and made part hereof

> SUBJECT TO taxes and assessments for the year 2018 and all subsequent years, together with any and all existing easements, rights-of-way, reservations, restrictions and encumbrances of record, to any existing tenancies, to all zoning laws and ordinances, and to any state of facts an accurate survey or inspection of the premises would show.

This conveyance shall include any and all estate, right, title, interest, appurtenances, tenements, hereditaments, reversions, remainders, easements, rents, issues, profits, rights-of-way and water rights in anywise appertaining to the property herein described as well in law as in equity.

IN WITNESS WHEREOF, the Grantor has hereunto subscribed its name to this instrument this _____ day of _____ , 2018. May

BEUS LAND & CATTLE, LLC

Daniel S. Beus, Manager

CHRIS YAMAMOTO CANYON COUNTY RECORDER \$15.00 Pgs=4 PBRIDGES DEED **BRIAN MERRELL**

STATE OF IDAHO)) ss. County of Ada)

On this \underline{M}_{4} day of \underline{M}_{4} , 2018, before me, a notary public for the State of Idaho, personally appeared Daniel S. Beus, known or identified to me to be a Manager of Beus Land & Cattle, LLC, the limited liability company that executed the instrument or the person who executed the instrument on behalf of said limited liability company, and acknowledged to me that such company executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.

KELLEY GRIM Notary Public State of Idaho

HULW NS

NOTARY PUBLIC FOR IDAHO Residing at: <u>Kuna Branch</u>, Ada Coun M My Commission Expire: <u>March 29</u>,2024

My Commission Expires March 29, 2024

GRANT DEED - 2

EXHIBIT A

PARCEL 1:

The South Half of Section 12, Township 1 North, Range 2 West, Boise Meridian, Canyon County, Idaho.

EXCEPTING THEREFROM the Northerly 25 feet as conveyed to the Nampa Highway District by Warranty Deed recorded July 13, 1966 as Instrument No. 583951.

PARCEL 2:

The North Half of Section 13, Township 1 North, Range 2 West, Boise Meridian, Canyon County, Idaho.

EXCEPTING THEREFROM a parcel of land being a portion of the NW¼ of Section 13, Township 1 North, Range 2 West, Boise Meridian, Canyon County, Idaho as shown on the Record of Survey filed as Instrument No. 9801167, in the Offices of the Canyon County Recorder, and being more particularly described as follows:

Commencing at a brass cap marking the West ¹/₄ Corner of said Section 13;

Thence along the South boundary of said NW¹/₄ of Section 13 South 89°27'47" East 40.00 feet to an iron pin on the East right of way line of Southside Boulevard;

Thence along said East right of way line North 00°37'51" East 690.05 feet to an iron pin being the TRUE POINT OF BEGINNING;

Thence continuing North 00°37'51" East 569.95 feet to an iron pin;

Thence leaving said East right of way South 89°27'47" East 330.00 feet to an iron pin; Thence South 00°37'51" West 600.69 feet to an iron pin;

Thence along a curve to the left having a radius of 280.00 feet, a central angle of 04°00'48", a length of 19.61 feet and a long chord that bears North 89°27'23" West 19.61 feet to an iron pin; Thence North 89°27'47" West 280.35 feet to an iron pin;

Thence along a curve to the right having a radius of 30.00 feet, a central angle of 90°05'38", a length of 47.17 feet and a long chord that bears North 44°24'58" West 42.46 feet to the POINT OF BEGINNING.

ALSO EXCEPTING THEREFROM a parcel of land being a portion of the NW¼ of Section 13, Township 1 North, Range 2 West, Boise Meridian, Canyon County, Idaho as shown on Record of Survey filed as Instrument No. 9801167, in the Offices of the Canyon County Recorder, and being more particularly described as follows:

Commencing at a brass cap marking the West ¹/₄ Corner of said Section 13;

Thence along the South boundary of said NW¹/4 of Section 13 South 89°27'47" East 40.00 feet to an iron pin on the East right of way line of Southside Boulevard, said iron pin being the POINT OF BEGINNING;

Thence along said East right of way line North 00°37'51" East 570.05 feet to an iron pin;

GRANT DEED - 3

Thence leaving said East right of way line and along a curve to the right having a radius of 30.00 feet, a central angle of 89°54'22", a length of 47.07 feet and a long chord that bears North 45°35'02" East 42.39 feet to an iron pin;

Thence South 89°27'47" East 280.55 feet to an iron pin;

Thence along a curve to the right having a radius of 220.00 feet, a central angle of 05°05'06", a length of 19.52 feet and a long chord that bears South 86°55'14" East 19.52 feet to an iron pin; Thence South 00°37'51" West 599.13 feet to an iron pin;

Thence North 89°27'47" West 330.00 feet along the South line of said NW¹/₄ to the POINT OF BEGINNING.

PARCEL 3:

The NE^{$\frac{1}{4}$} SW^{$\frac{1}{4}$} and the N^{$\frac{1}{2}$} SE^{$\frac{1}{4}$} of Section 13, Township 1 North, Range 2 West, Boise Meridian, Canyon County, Idaho.

PARCEL 4:

The Northwest Quarter of Section 18, Township 1 North, Range 1 West, Boise Meridian, Ada County, Idaho

PARCEL 5:

That portion of Government Lot 2, Section 7, Township 1 North, Range 1 West, Boise Meridian, Ada County, Idaho, more particularly described as follows:

COMMENCING at the Southwest corner of said Government Lot 2; Thence North 400.00 feet; Thence East 79.00 feet to the North-South line that runs midway between the major pump (on this property) and the sheet metal cellar (on adjoining property to the East); Thence South 400.00 feet; Thence West 79.00 feet to the POINT OF BEGINNING.

GRANT DEED - 4

610 S. Kimball Avenue Caldwell, ID 83605

ELECTRONICALLY RECORDED-DO NOT **REMOVE THE COUNTY STAMPED FIRST** PAGE AS IT IS NOW INCORPORATED AS PART OF THE ORIGINAL DOCUMENT

File No. 804939 VH/

WARRANTY DEED

For Value Received HWHL, LLC, an Idaho limited liability company

hereinafter referred to as Grantor, does hereby grant, bargain, sell, warrant and convey unto

Powers Butte Energy Center, LLC, an Delaware Limited Liability Company,

hereinafter referred to as Grantee, whose current address is c/o Savion, LLC 422 Admiral Boulevard Kansas City, MO 64106

The following described premises, to-wit:

See Exhibit A attached hereto and made a part hereof.

To HAVE AND TO HOLD the said premises, with their appurtenances unto the said Grantee(s), and Grantees(s) heirs and assigns forever. And the said Grantor(s) does (do) hereby covenant to and with the said Grantee(s), the Grantor(s) is/are the owner(s) in fee simple of said premises; that said premises are free from all encumbrances EXCEPT those to which this conveyance is expressly made subject and those made, suffered or done by the Grantee(s); and subject to U.S. Patent reservations, restrictions, dedications, easements, rights of way and agreements, (if any) of record, and current years taxes, levies, and assessments, includes irrigation and utility assessments, (if any) which are not yet due and payable, and that Grantor(s) will warrant and defend the same from all lawful claims whatsoever.

Dated: August 17, 2022

HWHL LLC

By: John B. Peterson, Manager State of UT, County of

This record was acknowledged before me on August (S, 2022 by John B. Peterson, as Manager of)HWHL LLC.

Signature of notary public

Commission Expires:

610 S. Kimball Avenue Caldwell, ID 83605

ELECTRONICALLY RECORDED-DO NOT REMOVE THE COUNTY STAMPED FIRST PAGE AS IT IS NOW INCORPORATED AS PART OF THE ORIGINAL DOCUMENT

File No. 804939 VH/

WARRANTY DEED

For Value Received HWHL, LLC, an Idaho limited liability company

hereinafter referred to as Grantor, does hereby grant, bargain, sell, warrant and convey unto

Powers Butte Energy Center, LLC, an Delaware Limited Liability Company,

hereinafter referred to as Grantee, whose current address is c/o Savion, LLC 422 Admiral Boulevard Kansas City, MO 64106

The following described premises, to-wit:

See Exhibit A attached hereto and made a part hereof.

To HAVE AND TO HOLD the said premises, with their appurtenances unto the said Grantee(s), and Grantees(s) heirs and assigns forever. And the said Grantor(s) does (do) hereby covenant to and with the said Grantee(s), the Grantor(s) is/are the owner(s) in fee simple of said premises; that said premises are free from all encumbrances EXCEPT those to which this conveyance is expressly made subject and those made, suffered or done by the Grantee(s); and subject to U.S. Patent reservations, restrictions, dedications, easements, rights of way and agreements, (if any) of record, and current years taxes, levies, and assessments, includes irrigation and utility assessments, (if any) which are not yet due and payable, and that Grantor(s) will warrant and defend the same from all lawful claims whatsoever.

Dated: August 17, 2022

HWHL LLC

By: John B. Peterson, Manager State of UT, County of Uta

This record was acknowledged before me on August 18, 2022 by John B. Peterson, as Manager of

HWHL LLC.

Signature of notary public Commission Expires:

A portion of the East half of Section 11, Township 1 North, Range 2 West, Boise, Meridian, Canyon County, Idaho, described as follows:

Beginning at the East quarter corner of said Section 11, marked by a brass cap monument, and as described in Corner Perpetuation Record, Instrument No. 9600352;

Thence along the East line of said Section 11, South 00°08'50" West, 268.00 feet;

Thence North 89°51'10" West, 420.00 feet, to a set 5/8 inch rebar with a plastic cap marked "TVEI PLS 10782", hereafter referred to simply as a set 5/8 inch rebar;

Thence South 00°08'50" West 232.00 feet, to a set 5/8 inch rebar;

a e s

Thence South 89°51'10" East 420.00 feet to a point on the East line of said Section 11;

Thence along said East line, South 00°08'50" West 823.63 feet to the Southeast corner of the Northeast quarter of the Southeast quarter (South 1/16 corner);

Thence along the South line of said Northeast quarter of the Southeast quarter, North 89°41'10" West, 1320.52 feet to the Southwest corner of the Northeast quarter of the Southeast quarter (Southeast 1/16 corner) marked by a 5/8 inch rebar as described in Corner Perpetuation Record, Instrument No. 991946;

Thence along the South line of the Northwest quarter of the Southeast quarter, North 89°40'09" West, 1320.51 feet, to the Southwest corner of said Northwest quarter of the Southeast quarter (Center-South 1/16 corner) marked by a 5/8 inch rebar as described in Cornner Perpetuation Record, Instrument No. 991945;

Thence along the West line of said Northwest quarter of the Southeast quarter, North 00°10'25" East 1323.05 feet, to the center quarter corner of Section 11, marked by a 5/8 inch rebar as described in Corner Perpetuation Record, Instrument No. 887006;

Thence along the East-West centerline of said Section 11, South 89°41 '25" East 440.09 feet, to a found half inch rebar;

Thence North 00°09'48" East 660.00 feet, to a found half inch rebar;

Thence South 89°41'25" East 1540.17 feet, to a found Idaho Power Company Brass Cap;

Thence South 00°09'00" West 660.00 feet, to a found Idaho Power Company Brass Cap on the East-West centerline of said Section 11;

Thence along said centerline South 89°41 '25" East 660.00 feet, to the POINT OF BEGINNING.

610 S. Kimball Avenue Caldwell, ID 83605

Date: September 23, 2022

Powers Butte Energy Center, LLC c/o Savion, LLC 422 Admiral Boulevard Kansas City, MO 64106

File No. 804939 Property Address: TBD Southside Boulevard, Melba, ID 83641

The closing of the above-noted property has now been completed. Enclosed for your records is the original recorded deed together with your final title policy.

We appreciate having had the opportunity to be of service to you. If you have questions please contact the Title Officer listed below.

Sincerely,

100

Robert Keil, Title Officer Ph: (208) 322-2228 Email: rkeil@pioneertitleco.com

Enclosures

RECORDING REQUESTED BY AND WHEN RECORDED RETURN TO:

Powers Butte Energy Center, LLC Attn: Aaron Lipscomb 422 Admiral Blvd Kansas City, MO 64160

FIRST AM NCS-1160842 2023-039883 RECORDED 12/15/2023 03:43 PM CHRIS YAMAMOTO CANYON COUNTY RECORDER Pgs=4 NHANEY \$15.00 TYPE: DEED FIRST AMERICAN TITLE INSURANCE ELECTRONICALLY RECORDED

(Space Above For Recorder's Use)

SPECIAL WARRANTY DEED

(Canyon County, State of Idaho)

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, BORAH PEAK FARMS, LLC, a Delaware limited liability company, having a mailing address of 8789 Penrose Lane, Suite 400, Lenexa, Kansas 66219 ("*Grantor*"), hereby grants to Powers Butte Energy Center, LLC, a Delaware limited liability company, having a mailing address of 422 Admiral Boulevard, Kansas City, Missouri 64106 ("*Grantee*"), against all claiming by, through, or under Grantor, but not otherwise, those certain tracts of land, together with any and all interests, rights and appurtenances thereto, as well as any and all improvements thereon, situated in Canyon County, State of Idaho, as more particularly described in attached <u>Exhibit A</u> (the "*Subject Property*"), TO HAVE AND TO HOLD the Subject Property, together with all tenements, hereditaments, and appurtenances thereunto belonging unto the Grantor, and its successors and assigns, forever, subject to those matters set forth in attached <u>Exhibit B</u>.

[Signature and acknowledgement on following page.]

RECORDING REQUESTED BY AND WHEN RECORDED RETURN TO:

Powers Butte Energy Center, LLC Attn: Aaron Lipscomb 422 Admiral Blvd Kansas City, MO 64160

RECORD ELECTRONICALLY ID: 2023-039883 County: Canyon Date: 12/15/2027 Time: 3:43 pm

simplifile.com 800,460,5657

(Space Above For Recorder's Use)

SPECIAL WARRANTY DEED

(Canyon County, State of Idaho)

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, BORAH PEAK FARMS, LLC, a Delaware limited liability company, having a mailing address of 8789 Penrose Lane, Suite 400, Lenexa, Kansas 66219 ("*Grantor*"), hereby grants to Powers Butte Energy Center, LLC, a Delaware limited liability company, having a mailing address of 422 Admiral Boulevard, Kansas City, Missouri 64106 ("*Grantee*"), against all claiming by, through, or under Grantor, but not otherwise, those certain tracts of land, together with any and all interests, rights and appurtenances thereto, as well as any and all improvements thereon, situated in Canyon County, State of Idaho, as more particularly described in attached <u>Exhibit A</u> (the "*Subject Property*"), TO HAVE AND TO HOLD the Subject Property, together with all tenements, hereditaments, and appurtenances thereunto belonging unto the Grantor, and its successors and assigns, forever.

[Signature and acknowledgement on following page.]

DATED this <u>15</u>^h day of <u>December</u>, 2023.

GRANTOR:

BORAH PEAK FARMS, LLC, a Delaware limited liability company

RRH By: Name: Jeff Janosky Title: President

STATE OF WASHINGTON)) ss. COUNTY OF KING)

ĸ

This record was acknowledged before me on December 1/3, 2023, by Jeff Janosky as President of Borah Peak Farms, LLC

Notary Public in and for the State of Washington My Commission Expires: 01/27/24 Printed Name: CHYSTAT, DNG WILSDA

(Stamp)

EXHIBIT A

LEGAL DESCRIPTION OF THE SUBJECT PROPERTY

Parcel 1

i 181

The South Half of the Northwest Quarter, the Northeast Quarter of the Northwest Quarter and the Northeast Quarter of Section 12, Township 1 North, Range 2 West, Boise Meridian, Canyon County, Idaho.

Parcel 2

[Intentionally omitted]

Parcel 2A

[Intentionally omitted]
EXHIBIT H

Notice of Neighborhood Meeting and Meeting Sign-up Sheet

POWERS BUTTE ENERGY CENTER

Please Join Us!

Powers Butte Energy Center Public Information Meeting

Thursday, October 26, 2023 6 – 8 p.m.

> American Legion 304 4th St Melba, ID 83641

Join us to learn more about this proposed solar + energy storage facility in Canyon and Ada Counties. Light refreshments provided. Powers Butte Energy Center 422 Admiral Blvd Kansas City, MO 64106

Questions about this meeting?

Mitch Taylor Director of Development & M&A 801.641.3985

www.PowersButteEnergyCenter.com

This meeting is for informational purposes and to receive feedback from you as Powers Butte Energy Center moves through the land use application processes with Ada and Canyon counties. This is not a public hearing before a governing body of either county. Once applications have been submitted and processed, public hearing dates will be scheduled. Prior to the scheduled date, you will receive an official notification from the counties regarding the public hearing via postal mail, newspaper publication, and/or a display on the property. Please do not call either county regarding this meeting. This is a pre-application requirement, and we have not submitted the applications for consideration.

PBT-PC1702-09252023

NEIGHBORHOOD MEETING SIGN-UP

CANYON COUNTY DEVELOPMENT SERVICES DEPARTMENT

111 North 11th Avenue, #310, Caldwell, ID 83605 zoninginfo@canyoncounty.id.gov Phone: 208-454-7458 Fax: 208-454-6633



NEIGHBORHOOD MEETING SIGN UP SHEET CANYON COUNTY ZONING ORDINANCE §07-01-15

Applicants shall conduct a neighborhood meeting for any proposed comprehensive plan amendment, zoning map amendment (rezone), subdivision, variance, conditional use, zoning ordinance map amendment, or other requests requiring a public hearing.

SITE INFORMATION

Site Address: 4587 Southside Boulevard	Parcel Number: see attach	Parcel Number: see attached map with parcel numbers	
City: Nampa	State: ID	ZIP Code: 83686	
Notices Mailed Date: October 16, 2023	Number of Acres: 2,385	Current Zoning: AG	
Description of the Request:			

Conditional Use Permit application for Powers Butte Energy Center

APPLICANT / REPRESENTATIVE INFORMATION

Contact Name:	Mitch Taylor		
Company Name:	Powers Butte Energy Center, LLC		
Current address: 422 Admiral Blvd.			
City: Kansas City		State: MO	ZIP Code: 64106
Phone: (801) 641	-3985	Cell: NA	Fax: NA
Email: info@PowersButteEnergyCenter.com			

MEETING INFORMATION		
DATE OF MEETING: Oct 26, 2023	MEETING LOCATION:	: American Legion Hall, 304 4th St, Melba, ID 83641
MEETING START TIME: 6:00 p.m.	MEETING END TIME:	8:00 p.m.
ATTENDEES:		17243 Lewis /m
NAME (PLEASE PRINT)	SIGNATURE:	ADDRESS: 5105 S
1. Kurt Greenfield	Kunt M	renfield Kompy Fd
2.		83686
3. Bryan Judy Appleby	fully Appleby	3832 S. Montague Way,
4.	1g A	rieridian, LD 8364D
6. Michael Water	Alt	7/67 Beautiful View Circle Melo
7. AllAN CASS 4	all R. C	4510 Track Rd Mula
8. Odey Peterson	M	4433 Southside Div melba
9. Stwer Ducky Du	is	1605 Poen Rd
		Dovised C/0/2

Revised 6/9/22

10. 1 pc 8364 Cent 11. GC hasper 12. ni 7620 w CL varter. R 8364 13. Kicharo Southside Blud 216 5 83641 14. 16000 S Can Ada RD 83641 15. 831,21 16. 3633 Kuna treen 3 In 17. DUB 1026 70 83 Middletan 18. ama NP Shannon SUSSE 19. Graves Southside Blud, Mella 83611 3791 20. 10707 - Cun -2

NEIGHBORHOOD MEETING CERTIFICATION:

I certify that a neighborhood meeting was conducted at the time and location noted on this form and in accordance with Canyon County Zoning Ordinance § 07-01-15.

APPLICANT/REPRESENTATIVE (Please print):

Mitchell cy 10 APPLICANT/REPRESENTATIVE (Signature): DATE: 10 / 26 / 23

NEIGHBORHOOD MEETING SIGN-UP

CANYON COUNTY DEVELOPMENT SERVICES DEPARTMENT

111 North 11th Avenue, #310, Caldwell, ID 83605 zoninginfo@canyoncounty.id.gov Phone: 208-454-7458 Fax: 208-454-6633



NEIGHBORHOOD MEETING SIGN UP SHEET CANYON COUNTY ZONING ORDINANCE §07-01-15

Applicants shall conduct a neighborhood meeting for any proposed comprehensive plan amendment, zoning map amendment (rezone), subdivision, variance, conditional use, zoning ordinance map amendment, or other requests requiring a public hearing.

SITE INFORMATION

Site Address: 4587 Southside Boulevard	Parcel Number: see attached map with parcel numbers	
City: Nampa	State: ID	ZIP Code: 83686
Notices Mailed Date: October 16, 2023	Number of Acres: 2,385	Current Zoning: AG
Description of the Request:		

Conditional Use Permit application for Powers Butte Energy Center

APPLICANT / REPRESENTATIVE INFORMATION

Contact Name:	Mitch Taylor		
Company Name:	Powers Butte Energy Center, LLC		
Current address: 422 Admiral Blvd.			
City: Kansas City		State: MO	ZIP Code: 64106
Phone: (801) 641	-3985	Cell: NA	Fax: NA
Email: info@PowersButteEnergyCenter.com			

MEETING INFORMATION			
DATE OF MEETING: Oct 26, 2023	MEETING LOCATION: American Legion Hall, 304 4th St, Melba, ID 83641		
MEETING START TIME: 6:00 p.m.	MEETING END TIME: 8:00 p.m.		
ATTENDEES:			
NAME (PLEASE PRINT)	SIGNATURE: ADDRESS:		
1. PATRICIA DUNIOP	Philip 211W JEFFERSON ST BOISE		
2. Lestré Clapson	Lamon 51755. LOWS- GROVE 1085702		
3. Denis Dunlas	Meridian, 1D 85692		
4. Howard lave	A 2645 Con Ode all W JEFFERSON, Borse 10 8570:		
5.			
6.			
7.			
8.			
9			

10.		
101		
11		

NEIGHBORHOOD MEETING CERTIFICATION:

I certify that a neighborhood meeting was conducted at the time and location noted on this form and in accordance with Canyon County Zoning Ordinance § 07-01-15.

APPLICANT/REPRESENTATIVE (Please print):

Mitchell Taylor Tti

APPLICANT/REPRESENTATIVE (Signature):

DATE: 10 1 26 1 2023



I like soke, but this doesn't belong in this spot. more it to the desert As this valley grows, that is soing to be houses which will actually grow the community Irrigated farming under the panels is not a great idea.

(Optional information)

Name:	Eric Kasper	
Phone:		
Email:		

On the Surface everything lodes great. My only concerns are potential glare, and hopefully you'll take thefter control of the weeds that current owners. Of the weeds that current owners. Would love to see a deal where neighbors Would love to see a deal where neighbors

(Optional information)

Name: <u>Michael Waitt</u>
Phone: _____
Email: _____

PBT-PO1728-10232023

Mailing list? Interested in Keeping of Lith the status

3791 Southside Blud - Did not receive invite. Melba

(Optional information) Name: <u>Rvssell</u> Groves Phone: Email:

EXHIBIT I

Project Area Aquatic Resources Delineation Report

Aquatic Resources Delineation Report for Powers Butte Energy Center, Ada and Canyon Counties, Idaho

JUNE 2023

PREPARED FOR

Powers Butte Energy Center, LLC

PREPARED BY

SWCA Environmental Consultants

AQUATIC RESOURCES DELINEATION REPORT FOR POWERS BUTTE ENERGY CENTER, ADA AND CANYON COUNTIES, IDAHO

Prepared for

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

Prepared by

SWCA Environmental Consultants 257 East 200 South, Suite 200 Salt Lake City, Utah 84111 www.swca.com

June 2023

REPORT SUMMARY

The Survey Area covers 2,385.18 acres within Ada and Canyon Counties, Idaho, on privatelyowned lands. SWCA observed no hydrophytic vegetation and no hydric soils within the Survey Area. Four human-made ponds (2.59 acres) were delineated within the Survey Area with hydrology but no other wetland indicators. Additionally, seven irrigation canals (15,079.76 feet; 4.57 acres) were delineated within the Survey Area. None of the delineated aquatic resources are suspected to be jurisdictional.

CONTENTS

1.0		Introduction1
	1.1	Contact Information1
	1.2	Survey Area Location1
2.0		Methods1
	2.1	Desktop Resource Review1
	2.2	Regulatory Setting
		2.2.1 Waters of the United States
		2.2.2 Waters of the State
	2.3	Field Survey
		2.3.1 Wetlands
		2.3.2 Other Aquatic Resources
3.0		Existing Conditions
4.0		Aquatic Resources
	4.1	Aquatic Resources Table
	4.2	Non-jurisdictional Aquatic Resources
	4.3	Vegetation
	4.4	Hydrology14
	4.5	Soils
5.0		References

Appendices

Appendix A. Location Map Appendix B. Aquatic Resources Maps Appendix C. U.S. Army Corps of Engineers Antecedent Precipitation Tool for the Survey Area Appendix D. Supplementary Maps Appendix E. Wetland Determination Data Form

Figures

Figure 1. Photograph of U01 from photo point PP12	6
Figure 2. Photograph of U02 from photo point PP48.	7
Figure 3. Photograph of U03 from photo point PP48.	7
Figure 4. Photograph of U04 from photo point PP47	8
Figure 5. Photograph of C01 from cross section XS01.	8
Figure 6. Photograph of C02 from cross section XS03.	9
Figure 7. Photograph of C03 from cross section XS05.	9
Figure 8. Photograph of C04 from cross section XS061	0
Figure 9. Photograph of C05 from cross section XS04 1	0
Figure 10. Photograph of C06 from cross section XS081	1
Figure 11. Photograph of C07 from cross section XS07 1	.1

Figure 12. Representative photograph of habitat from photo point PP04	. 12
Figure 13. Photograph of upland area from point U1.	. 12

Tables

Table 1. NLCD cover types within the Survey Area	5
Table 2. Other Aquatic Resources in the Survey Area	13
Table 3. Wetland Features within the Survey Area	14
Table 4. National Hydrography Dataset Results for the Survey Area	14
Table 5. NRCS SSURGO Soil Data for the Survey Area	14

ACRONYMS AND ABBREVATIONS

CFR	Code of Federal Regulations
CWA	Clean Water Act
delineation	aquatic resources delineation
EPA	U.S. Environmental Protection Agency
FAC	Facultative
FACU	Facultative Upland
FACW	Facultative Wetland
GPS	global positioning system
IDWR	Idaho Department of Water Resources
NHD	National Hydrography Dataset
NLCD	National Land Cover Database
NRCS	Natural Resources Conservation Service
NWI	National Wetlands Inventory
OBL	Obligate Wetland
OHWM	ordinary high-water mark
project	Powers Butte Energy Center
SSURGO	Soil Survey Geographic Database
SWCA	SWCA Environmental Consultants
UPL	Upland
USACE	U.S. Army Corps of Engineers
WOTUS	Waters of the United States

1.0 INTRODUCTION

Savion LLC, doing business as Powers Butte Energy Center, LLC, is seeking to develop the Powers Butte Energy Center (project), a 250-megawatt (MW) solar generation facility, 200-MW battery energy storage system, and ancillary facilities on 2,385.18 acres of private developable land in Ada and Canyon Counties, Idaho (Figure A-1 in Appendix A). Savion LLC contracted SWCA Environmental Consultants (SWCA) to conduct an aquatic resources delineation (delineation). The purposes of this delineation are to identify and evaluate potential aquatic resources including wetlands, within the Survey Area that may be subject to U.S. Army Corps of Engineers (USACE) Walla Walla District and the State of Idaho jurisdiction as defined in Sections 401 and/or 404 of the Clean Water Act and Idaho code § 42- 3801.

1.1 Contact Information

Applicant:	Christopher Powers Powers Butte Energy Center, LLC 422 Admiral Boulevard Kansas City, Missouri 64106
Agent:	SWCA Environmental Consultants 257 East 200 South, Suite 200 Salt Lake City, Utah 84111 (801) 322-4307 bill.johnson@swca.com

1.2 Survey Area Location

The Survey Area covers 2,385.18 acres within Ada and Canyon Counties, Idaho, on privately-owned lands (see Figure A-1). The center point of the Survey Area is located at 43.43402, -116.51994. To access the Survey Area from Nampa, Idaho, head southeast on 1st Street South toward Wall Street for 0.3 mile. Turn right, heading southwest, onto 16th Avenue South for 374 feet. Turn left, heading southeast, onto 2nd Street South for 1.7 miles. Turn left onto Southside Boulevard, and head south for 8.5 miles. Turn left, heading east, onto Rose Lane to arrive at the center of the Survey Area.

2.0 METHODS

2.1 Desktop Resource Review

Before the delineation fieldwork, SWCA reviewed the following data sources as they pertain to the Survey Area:

- Aerial photographs (see Figure A-1) and aquatic resources maps to identify potential aquatic resources in the Survey Area (see Appendix A, Appendix B)
- Antecedent Precipitation Tool (Appendix C) to compare recent rainfall conditions of the Survey Area to the range of normal rainfall conditions that occurred during the preceding 30 years and evaluate how that affects site conditions
- Topographic maps (Figure D-1 in Appendix D) to identify nearest aquatic resources to the Survey Area (see Appendix D)

- National Wetlands Inventory (NWI) data (U.S. Fish and Wildlife Service 2023) and the National Hydrography Dataset (NHD) (Idaho Department of Water Resources [IDWR] and U.S. Geological Survey 2022) to identify potential aquatic resources in the Survey Area (Figure D-2 in Appendix D)
- Natural Resources Conservation Service (NRCS) Soil Survey Geographic Database (SSURGO) to identify potential hydric soils in the Survey Area (NRCS 2023) (Figure D-3 in Appendix D).

2.2 Regulatory Setting

2.2.1 Waters of the United States

On December 30, 2022, the U.S. Environmental Protection Agency (EPA) and the U.S. Department of the Army ("the agencies") announced the final "Revised Definition of 'Waters of the United States' " rule promulgated by the current administration, and the rule took effect on March 20, 2023. Due to ongoing litigation, the agencies were interpreting "waters of the United States" consistent with the pre-2015 regulatory regime in approximately half of the states with the other half utilizing the new rule.

On May 25, 2023, the U.S. Supreme Court issued the Sackett v. EPA decision narrowing the interpretation of federal WOTUS. The opinion determined that the Clean Water Act (CWA) extends to only those wetlands with a "continuous surface connection to bodies that 'are Waters of the United States' in their own right," so that they are" indistinguishable" from those waters. In addition, the decision abandons the existing significant nexus test for adjacent wetlands moving forward. The Sackett v. EPA opinion also emphasizes statutory language in the CWA that protects the "primary responsibilities and rights of States" to reduce water pollution and to manage land and water resources.

The decision is inconsistent with the most recent "Revised Definition of 'Waters of the United States'" rule that took effect on March 20, 2023, as well as the pre-2015 CWA regulatory regime, both of which are in effect in different states. In light of this decision, the agencies will interpret the phrase "waters of the United States" consistent with the Supreme Court's decision in Sackett.

"The term waters of the United States in as defined by the agencies under 43 CFR 120 and 33 CFR 328.3 is as follows:

(a) Water of the United States means:

(1) All waters which are:

(i) currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;

- (ii) territorial seas; or
- (iii) Interstate waters, including interstate wetlands;

(2) Impoundments of waters otherwise defined as waters of the United States under this definition, other than impoundments of waters identified under paragraph (a)(5) of this section;

(3) Tributaries of waters identified in paragraph (a)(1) or (2) of this section:

(i) That are relatively permanent, standing or continuously flowing bodies of water; or (ii) That either alone or in combination with similarly situated waters in the region, significantly affect the chemical, physical, or biological integrity of waters identified in paragraph (a)(1) of this section;

- (4) Wetlands adjacent to the following waters:
 - (i) Waters identified in paragraph (a)(1) of this section; or

(ii) Relatively permanent, standing or continuously flowing bodies of water identified in paragraph (a)(2) or (a)(3)(i) of this section and with a continuous surface connection to those waters; or

(iii) Waters identified in paragraph (a)(2) or (3) of this section when the wetlands either alone or in combination with similarly situated waters in the region, significantly affect the chemical, physical, or biological integrity of waters identified in paragraph (a)(1) of this section;

(5) Intrastate lakes and ponds, streams, or wetlands not identified in paragraphs (a)(1) through (4) of this section:

(i) That are relatively permanent, standing or continuously flowing bodies of water with a continuous surface connection to the waters identified in paragraph (a)(1) or (a)(3)(i) of this section; or

(ii) That either alone or in combination with similarly situated waters in the region, significantly affect the chemical, physical, or biological integrity of waters identified in paragraph (a)(1) of this section.

Eight exclusions from the definition of "waters of the United States" are codified at 43 Code of Federal Regulations (CFR) 120 and 33 CFR 328.3 paragraph (b), and key terms are defined at paragraph (c).

Wetlands are a subset of jurisdictional WOTUS and are jointly defined by the USACE and the EPA as "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas" (Environmental Laboratory 1987).

Under Section 404 of the CWA, dredged and fill material may not be discharged into jurisdictional WOTUS, including wetlands, without a permit.

Regulated activities include

- fill for development,
- utility line projects (such as pipelines), and
- infrastructure development (such as roads).

2.2.2 Waters of the State

Sections 42-3801-3802 of the Idaho Statutes requires that the stream channels of the state and their environments be protected against alteration for the protection of fish and wildlife habitat, aquatic life, recreation, aesthetic beauty, and water quality. No alteration of any stream channel shall hereafter be made unless approval therefore has been given as provided in this act (Justia US Law 2022). *Stream channel* refers to a natural watercourse of perceptible extent, with definite bed and banks, which confines and conducts continuously flowing water. Ditches, canals, laterals, and drains that are constructed and used for irrigation or drainage purposes are not stream channels (Idaho Statute 42-3802). The IDWR must approve any work being done within the beds and banks of a continuously flowing stream. A stream channel alteration permit from IDWR must be acquired before beginning any work that alters a stream channel. Stream alteration is defined as "any activity that will obstruct, diminish, destroy, alter, modify, relocate or change the natural existing shape or direction of water flow of any stream channel. This includes taking material out of the channel or placing material or structures in or across the channel where the potential exists to affect flow in the channel" (IDWR 2023).

The Idaho Department of Water Resources, Idaho Department of Lands, and the USACE have developed a joint application for permits under the Stream Protection Act. An application must be filed at least 60 days before the applicant proposes to start construction. The application is required to be accompanied by plans that clearly describe the nature and purpose of the proposed work. In those cases where the applicant intends to follow the minimum standards, detailed plans may be eliminated by referring to the specific minimum standard; however, drawings necessary to adequately define the extent, purpose, and location of the work may be required (Cornell Law School 2023).

2.3 Field Survey

2.3.1 Wetlands

During the fieldwork, all potential wetland and upland vegetation communities observed were sampled to characterize vegetation, soil, and hydrology. SWCA recorded all sampling points and wetland boundaries using a global positioning system (GPS) unit with submeter accuracy.

The fieldwork was done in accordance with the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)* (USACE 2008). The delineation methodology used was routine and there were no deviations from the USACE guidelines. Based on these documents, wetlands are identified using the following three criteria:

- 1. Hydrophytic vegetation
- 2. Wetlands hydrology
- 3. Hydric soil

All three criteria must be met for an area to be considered a wetland. An explanation of the three wetlands criteria follows.

2.3.1.1 HYDROPHYTIC VEGETATION

Hydrophytic plants are plants that are adapted to wet conditions. The National Wetland Plant List (USACE 2020) is used to determine the wetlands indicator status of plant species observed at the sampling points. There are five categories of wetland indicator status ratings: Obligate Wetland (OBL), Facultative Wetland (FACW), Facultative (FAC), Facultative Upland (FACU), and Upland (UPL). These rating categories are defined by the USACE as follows:

- OBL: almost always occur in wetlands;
- FACW: usually occur in wetlands but may occur in non-wetlands;
- FAC: occur in wetlands and non-wetlands;
- FACU: usually occur in non-wetlands but may occur in wetlands; and
- UPL: almost always occur in non-wetlands.

2.3.1.2 WETLANDS HYDROLOGY

Wetlands hydrology examines the behavior of water in wetlands. Primary hydrologic indicators assessed in the field include soil saturation, surface water, hydrogen sulfide odor, and presence of reduced iron in the soil. Secondary indicators are also assessed and can include drainage patterns, dry-season water table, crayfish burrows, saturation visible on aerial imagery, shallow aquitard, FAC-neutral test, water marks (Riverine), sediment deposits (Riverine), and drift deposits (Riverine). One primary indicator or two or more secondary indicators is sufficient to conclude wetland hydrology is present.

2.3.1.3 HYDRIC SOILS

The NRCS defines hydric soils as those soils formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper portion of the soil column (above 12- to 20-inch soil depth, depending on soil texture [NRCS 2018]). Soils are assessed for hydric conditions in the field using a sharpshooter shovel to excavate a soil pit and to examine the soil profile. Some hydric soil indicators are depleted matrix, redox dark surface, stripped matrix, depleted dark surface, and black histic. A Munsell soil color chart is used to determine soil color.

2.3.2 Other Aquatic Resources

Potential non-wetland aquatic resources, including ephemeral, intermittent, and perennial streams, were delineated based on the location of the ordinary high-water mark (OHWM), which typically occurs at the transition between the active floodplain and the low terrace. An ephemeral stream has flowing water only during, and for a short duration after, precipitation events in a typical year. An intermittent stream has flowing water during certain times of the year, when groundwater provides water for stream flow. A perennial stream has flowing water year-round during a typical year (USACE 2022). Indicators of OHWM can be physical or vegetative and include benches, drift lines, changes in sediment size distribution, and transitions in vegetation type and density. During the delineation process, SWCA uses the Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States (Lichvar and McColley 2008); A Guide to Ordinary High Water Mark (OHWM) Delineation for Non-Perennial Streams in the Western Mountains, Valleys, and Coast Region of the United States (Mersel and Lichvar 2014); and Regulatory Guidance Letter 05-05 (USACE 2005). Although the OHWM field guide (Lichvar and McColley 2008) focuses primarily on ephemeral and intermittent streams, the OHWM indicators also apply to perennial streams and were used to delineate these types of systems in the Survey Area. OHWM indicators include a change in average sediment texture, vegetation species, or vegetation cover; a break in bank slope; and a change in soil crust. OHWM width and height were also recorded.

3.0 EXISTING CONDITIONS

SWCA conducted the delineation of the 2,385.18 -acre Survey Area between April 24 and 27, 2023. The entire Survey Area was field verified. According to the USACE Antecedent Precipitation Tool, the Survey Area had normal conditions during the field survey (see Appendix C). There was no surface water flow within the Survey Area. At the time of the survey, there was evidence of heavy cattle use and manure storage in the Survey Area. Several irrigation canals had been constructed along the perimeter.

The Survey Area is composed of agricultural fields, grasslands, and upland shrub habitat. The National Land Cover Database (NLCD) (Dewitz 2019) characterizes the Survey Area as predominantly Cultivated Crops (84.24%) (Table 1).

NLCD cover type	Acres	Percent of Survey Area
Cultivated Crops	2,104.63	88.24%

Table 1. NLCD cover types	within the	Survey	Area
---------------------------	------------	--------	------

NLCD cover type	Acres	Percent of Survey Area
Herbaceous	177.83	7.46%
Shrub/Scrub	46.19	1.94%
Hay/Pasture	24.62	1.03%
Developed, Open Space	19.27	0.81%
Developed, Low Intensity	10.04	0.42%
Developed, Medium Intensity	2.38	0.10%
Open Water	0.22	0.01%
Total	2,385.18	100.00%

Source: Dewitz (2019).

4.0 AQUATIC RESOURCES

There were no wetlands delineated within the Survey Area (see Appendix B). SWCA observed no indications of wetlands, including no hydrophytic vegetation and no hydric soils. Four human-made ponds (2.59 acres) were delineated within the Survey Area (Table 2), but these lacked hydric soils and vegetation. These human-made ponds are not jurisdictional under the CWA.

U01 is an human-made pond that lacked wetland vegetation. This pond was located behind a fence located in a neighbor's front yard. SWCA was unable to dig a wetland soil pit (Figure 1).



Figure 1. Photograph of U01 from photo point PP12.

U02, U03, and U04 are human-made pond features that are used as manure holding ponds (Figures 2 through 4). These features lacked hydric soils and wetland vegetation. Active manure dumping was present at the time of the survey.



Figure 2. Photograph of U02 from photo point PP48.



Figure 3. Photograph of U03 from photo point PP48.



Figure 4. Photograph of U04 from photo point PP47.

Additionally, seven irrigation canals (15,079.76 feet; 4.57 acres) were delineated within the Survey Area (see Table 2).

C01 is an irrigation canal on the western edge of the Survey Area (Figure 5). C01 flows southwest outside the Survey Area and is characterized by a change in vegetation with an OHWM width of 2 feet. Both C01 and C02 begin at a water control feature from an irrigation canal outside of the Survey Area.



Figure 5. Photograph of C01 from cross section XS01.

C02 is an irrigation canal on the western edge of the Survey Area beginning at an irrigation feature outside of the Survey Area and flows south out of the Survey Area to the west (Figure 6). C02 is characterized by a change in vegetation with an OHWM width of 4 feet.



Figure 6. Photograph of C02 from cross section XS03.

C03 is an irrigation canal flowing west on the northern edge of the Survey Area beginning and ending outside of the Survey Area. It is characterized by a bed and bank and a change in vegetation within an OHWM width of 4 feet (Figure 7). Water was present at the time of the survey.



Figure 7. Photograph of C03 from cross section XS05.

C04 is an irrigation canal along the northern edge of the Survey Area that flows west outside of the Survey Area and connects to C03 (Figure 8). The OHWM indicators include a bed and bank and a change in vegetation with an OHWM width of 5 feet.



Figure 8. Photograph of C04 from cross section XS06.

C05 is an irrigation canal along the southern edge of the Survey Area with several water control features throughout that flows south outside of the Survey Area (Figure 9). OHWM indicators include a bed and bank and OHWM width of 4 feet. C05 connects to C06 outside of the Survey Area.



Figure 9. Photograph of C05 from cross section XS04.

C06 is an irrigation canal with several water control features throughout it that flows west along the edge of the Survey Area from C07, continues out of the Survey Area, and flows into C05 (Figure 10). Water was present at the time of the survey. OHWM indicators include a bed and bank and a change in vegetation and OHWM width of 4 feet.



Figure 10. Photograph of C06 from cross section XS08.

C07 is a large irrigation canal, named the Waldvogel Canal, which begins outside the Survey Area to the north, flows south along the edge of the Survey Area, and continues south (Figure 11). Some water is diverted from C07 into C06 for irrigation purposes. Water was present at the time of the survey. OHWM indicators consist of a bed and bank, and a change in vegetation. The OHWM width is 25 feet. There were many water control features throughout the canal.



Figure 11. Photograph of C07 from cross section XS07.

SWCA took representative photographs of habitat throughout the Survey Area (see Figures 1–12, see Appendix B for photo locations).



Figure 12. Representative photograph of habitat from photo point PP04.

Biologists took one upland sampling point within the Survey Area (U1). This area lacked hydric soil indicators and hydrophytic vegetation. Hydrology within the area is driven by irrigation for agriculture and runs through the area. Corresponding wetland forms are in Appendix E.



Figure 13. Photograph of upland area from point U1.

4.1 Aquatic Resources Table

Aquatic Resource	Photo Point	Туре	Loc	ation	Length (feet)	Mean OHWM Width (feet)	Area (acres)
Name			Latitude	Longitude	()	,	()
C01	XS01	Canal	43.43527	-116.54330	108.93	1.5	0.01
C02	XS03	Canal	43.43599	-116.54338	500.66	3.5	0.05
C03	XS05	Canal	43.43015	-116.49723	969.17	4	0.09
C04	XS06	Canal	43.44803	-116.51294	2,872.98	5	0.33
C05	XS05	Canal	43.45033	-116.49831	2,856.24	4	0.26
C06	XS07	Canal	43.43648	-116.48607	1,355.17	4	0.12
C07	XS08	Canal	43.43383	-116.49046	6,416.62	25	3.71
U01	PP12	Human-made pond	43.43550	-116.53396	N/A	N/A	0.08
U02	PP48	Human-made pond	43.43576	-116.49504	N/A	N/A	1.14
U03	PP48	Human-made pond	43.43576	-116.49504	N/A	N/A	0.35
U04	PP47	Human-made pond	43.43258	-116.49518	N/A	N/A	1.03
Total					15,079.77		7.17

Table 2. Other Aquatic Resources in the Survey Area

N/A: Not Applicable.

4.2 Non-jurisdictional Aquatic Resources

The aquatic resources delineated within the Survey Area are suspected to be non-jurisdictional. The four human-made ponds lack wetland indicators and are artificial ponds used for agricultural purposes. The seven irrigation canals are suspected to be non-jurisdictional because they are human made and used for agricultural purposes and lack a continuous connection with traditionally navigable waters. C07 does not connect two navigable WOTUS that are used for interstate commerce and is not susceptible to use in interstate or foreign commerce. C07, the Waldvogel Canal, is a distributary of Mora canal and appears to end within agricultural fields south of the Survey Area (see Figure D-1).

Under the CWA, the USACE has sole authority to determine what resources are jurisdictional or not jurisdictional 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.

4.3 Vegetation

The Survey Area is relatively flat and is characterized by large hay and alfalfa agricultural fields, upland shrubland habitat, and invasive-plant-dominated grasslands. Dominant vegetation includes yellow rabbitbrush (*Chrysothamnus viscidiflorus*), burningbush (*Bassia scoparia*), narrowleaf willow (*Salix exigua*), timothy (*Phleum pratense*), lenspod whitetop (*Cardaria draba*), prickly Russian thistle (*Salsola tragus*), cheatgrass (*Bromus tectorum*), and African mustard (*Malcolmia africana*).

There are 16.38 acres of mapped NWI data within the Survey Area (Table 3). NWI data for the Survey Area and the surrounding area are shown on Figure D-2.

Wetland Type	Acres
Freshwater emergent wetland	12.03
Freshwater pond	0.77
Riverine	3.57
Total	16.38

Table 3. Wetland Features within the Survey Area

Source: U.S. Fish and Wildlife Service (2023).

4.4 Hydrology

There are 8,020.76 linear feet of mapped NHD data within the Survey Area. NHD data for the Survey Area are provided in Table 4 and shown on Figure D-2. There are also 2.63 acres of NHD waterbodies mapped within the Survey Area. The Waldvogel Canal, C07, flows through the eastern portion of the Survey Area and is the nearest aquatic resource that appears on the USGS topographic map.

Table 4. National Hydrography Dataset Results for the Survey Area

NHD Classification	Length (feet)
Stream/river: intermittent	2,535.08
Canal/ditch	4,137.11
Artificial path	1,348.57
Total	8,020.76

Source: Idaho Department of Water Resources and U.S. Geological Survey (2022).

4.5 Soils

NRCS SSURGO soil data for the Survey Area are provided in Table 5 and shown on Figure D-3. There are no hydric soils mapped within the Survey Area.

Table 5. NRCS SSURGO Soil Data for the Survey Area

Map Unit Symbol	Soil Unit Name	Hydric? (yes or no)	Area (acres)
161	Scism silt loam, 2 to 4 percent slopes	No	442.34
127	Potratz-Power silt loams, 4 to 8 percent slopes	No	322.68
SdC	Scism silt loam, deep over basalt, 3 to 7 percent slopes	No	266.07
PhB	Power silt loam, 1 to 3 percent slopes	No	258.94
160	Scism silt loam, 0 to 2 percent slopes	No	234.66
PcC	Potratz-Power silt loams, 3 to 7 percent slopes	No	175.96
TkE	Trevino-Rock outcrop complex, 0 to 20 percent slopes	No	108.66

Map Unit Symbol	Soil Unit Name	Hydric? (yes or no)	Area (acres)
165	Scism silt loam, bedrock substratum, 4 to 8 percent slopes	No	101.07
SdB	Scism silt loam, deep over basalt, 1 to 3 percent slopes	No	87.61
164	Scism silt loam, bedrock substratum, 2 to 4 percent slopes	No	66.10
130	Power silt loam, 2 to 4 percent slopes	No	64.39
166	Scism silt loam, bedrock substratum, 8 to 12 percent slopes	No	52.81
TrD	Trevino silt loam, 3 to 12 percent slopes	No	33.44
145	Purdam-Power silt loams, 2 to 4 percent slopes	No	30.61
BaE	Bahem silt loam, 12 to 30 percent slopes	No	29.53
PhA	Power silt loam, 0 to 1 percent slopes	No	24.97
PeC	Power-McCain silt loams, 8 to 12 percent slopes	No	20.42
136	Power-Potratz silt loams, 2 to 4 percent slopes	No	19.19
140	Potratz silt loam, 1 to 3 percent slopes	No	17.18
PaB	Potratz-Power silt loams, 1 to 3 percent slopes	No	9.67
PeB	Scism silt loam, 7 to 12 percent slopes	No	6.36
ScD	Trevino silt loam, 1 to 3 percent slopes	No	4.96
TrB	Rock outcrop-Trevino complex, 5 to 20 percent slopes	Unranked	3.26
158	Scism silt loam, 1 to 3 percent slopes	No	2.22
ScB	Garbutt silt loam, 4 to 8 percent slopes	No	1.21
62	Scism silt loam, 4 to 8 percent slopes	No	0.73
162	Potratz silt loam, 4 to 8 percent slopes	No	0.14
	Total		2,385.18

Source: NRCS (2023).

5.0 REFERENCES

- Cornell Law School. 2023. Idaho Administrative Code 37.03.07.030. Available at: https://www.law.cornell.edu/regulations/idaho/IDAPA-37.03.07.030. Accessed May 29, 2023.
- Dewitz, J. 2019. National Land Cover Database (NLCD) 2016 Products: U.S. Geological Survey data release. Available at: https://doi.org/10.5066/P96HHBIE. Accessed May 15, 2023.
- Environmental Laboratory. 1987. *Corps of Engineers Wetlands Delineation Manual*. Technical Report Y-87-1. Vicksburg, Mississippi: U.S. Army Corps of Engineers Waterways Experiment Station.
- Idaho Department of Water Resources (IDWR). 2023. Stream channel protection program. Available at: https://idwr.idaho.gov/streams/#:~:text=A%20stream%20channel%20alteration%20is,flow%20of %20any%20stream%20channel. Accessed May 22, 2023.
- Idaho Department of Water Resources (IDWR) and U.S. Geological Survey (USGS). 2022. NHD and WBD Datasets. Available at: https://idwr.idaho.gov/gis/nhd/datasets/. Accessed May 17, 2023.
- Justia US Law. 2023. 2018 Idaho Statutes Title 42 Irrigation and Drainage Water Rights and Reclamation. Available at: https://law.justia.com/codes/idaho/2018/title-42/chapter-38/section-42-3801/_ Accessed May 29, 2023.
- Lichvar, R.W., and S.M. McColley. 2008. *Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States*. Hanover, New Hampshire: Cold Regions Research and Engineering Laboratory, USACE Research and Development Center.
- Mersel, M.K., and R.W. Lichvar. 2014. A Guide to Ordinary High Water Mark (OHWM) Delineation for Non-Perennial Streams in the Western Mountains, Valleys, and Coast Region of the United States. Hanover, New Hampshire: Cold Regions Research and Engineering Laboratory, USACE Research and Development Center.
- Natural Resources Conservation Service (NRCS). 2018. Field Indicators of Hydric Soils in the United States: A Guide for Identifying and Delineating Hydric Soils, Version 8.2, 2018. Edited by L.M Vasilas, G.W. Hurt, and J.F. Berkowitz. U.S. Department of Agriculture, Natural Resources Conservation Service, in cooperation with the National Technical Committee for Hydric Soils.
- U.S. Army Corps of Engineers (USACE). 2005. *Regulatory Guidance Letter 05-05*. Available at: https://usace.contentdm.oclc.org/utils/getfile/collection/p16021coll9/id/1253. Accessed May 17, 2023.
 - —. 2008. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0). Vicksburg, Mississippi: USACE Research and Development Center.
 - ------. 2020. National Wetland Plant List, version 3.5. Available at: https://cwbiapp.sec.usace.army.mil/nwpl_static/v34/home/home.html. Accessed May 17, 2023.

—. 2022. Definitions. Available at:

https://www.nap.usace.army.mil/Missions/Regulatory/Definitions/#Per%20Stream. Accessed May 17, 2023.

U.S. Fish and Wildlife Service. 2023. National Wetlands Inventory. Available at: http://www.fws.gov/wetlands/Data/Mapper.html. Accessed May 17, 2023.

APPENDIX A

Location Map


Figure A-1. Survey Area location.

APPENDIX B

Aquatic Resources Maps



Figure B-1. Overview map of aquatic resources delineation.



Figure B-2. Results of aquatic resources delineation (map 1 of 4).



Figure B-3. Results of aquatic resources delineation (map 2 of 4).



Figure B-4. Results of aquatic resources delineation (map 3 of 4).



Figure B-5. Results of aquatic resources delineation (map 4 of 4).

APPENDIX C

U.S. Army Corps of Engineers Antecedent Precipitation Tool for the Survey Area



I	Jul	Aug	Sep
	2023	2023	2023

ondition Value	Month Weight	Product
2	3	6
3	2	6
1	1	1
		Normal Conditions - 13

evation Δ	Weighted Δ	Days Normal	Days Antecedent
36.806	8.15	11353	90



I	Jul	Aug	Sep
	2023	2023	2023

ondition Value	Month Weight	Product
2	3	6
3	2	6
1	1	1
		Normal Conditions - 13

evation Δ	Weighted Δ	Days Normal	Days Antecedent
36.806	8.15	11353	90



I	Jul	Aug	Sep
	2023	2023	2023

ondition Value	Month Weight	Product
2	3	6
3	2	6
1	1	1
		Normal Conditions - 13

evation Δ	Weighted Δ	Days Normal	Days Antecedent
36.806	8.15	11353	90



Sep 2023

ondition Value	Month Weight	Product
3	3	9
3	2	6
1	1	1
		Wetter than Normal - 16

evation Δ	Weighted Δ	Days Normal	Days Antecedent
36.806	8.15	11353	90

APPENDIX D

Supplementary Maps



Figure D-1. Topographic map of the Survey Area.



Figure D-2. National Wetlands Inventory and National Hydrography Dataset features within the Survey Area.



Figure D-3. SSURGO soils data for the Survey Area.

APPENDIX E

Wetland Determination Data Form

WETLAND DETERMINATION DATA FORM — Arid West Region

Project/Site: Powers Butte	City/County: Ada Cour	nty	Sampling Date: 04/25/2023
Applicant/Owner: Savion		State: ID	Sampling Point: <u>U1</u>
Investigator(s): SMF, ZEV	Section, Township, Ra	inge: <u>Sec. 18 T1N F</u>	1W
Landform (hillslope, terrace, etc.): Depression	Local relief (concave, co	nvex, none):	Slope (%): < <u><5%</u>
Subregion (LRR): LRR B Lat: 43.4234	t Lo	ng: <u>-116.513</u>	Datum: NAD83
Soil Map Unit Name: 130 - Power silt loam, 2 to 4 percent slopes		NWI classi	fication: <u>No</u>
Are climatic / hydrologic conditions on the site typical for this time of year?	Yes <u>X</u> No	(If no, explai	ו in Remarks.)
Are Vegetation, Soil, or Hydrologysignificantly	disturbed? Are "	'Normal Circumstan	ces" present? Yes <u>X</u> No
Are Vegetation, Soil, or Hydrologynaturally pro	blematic? (If ne	eeded, explain any a	nswers in Remarks.)
SUMMARY OF FINDINGS — Attach site map showing sam	pling point locatio	ns, transects, ir	nportant features, etc.
Hydrophytic Vegetation Present? Yes: No: X			

Remarks: Some wetland plant species are present due to agricultural irrigation. Areas that could have standing water are limited due to micro topographic changes. AKA piles of rocks.

VEGETATION — Use scientific names of plants.

Tree Stratum: (Plot size: 15)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test	worksheet:			
1.				Number of Domina That Are OBL, FA	ant Species CW, or FAC:		1	(A)
<u>2.</u> 3.				Total Number of D	ominant			
<u>4.</u>				Species Across Al	l Strata:		3	(B)
	0	=Total Co	ver	Percent of Doman That Are OBL, FA	t Species CW, or FAC:		33	(A/B)
Sapling/Shrub Stratum: (Plot size: 10)								
1. Salix exigua	35	Y	FACW	Prevalence Index	worksheet	:		
2.				Total % Co	ver of:	M	ultiply by:	
3.				OBL species	0	x 1 =	0	
4.				FACW species	35	x 2 =	70	
5.				FAC species	0	x 3 =	0	
	35	=Total Co	ver	FACU species	35	x 4 =	140	
				UPL species	50	x 5 =	250	
<u>Herb Stratum:</u> (Plot size: <u>5</u>)				Column Totals:	120	(A)	460	(B)
1. Cardaria draba	50	Y	UPL	Prevalence In	idex = B/A=		3.83	、 /
2. Phleum pratense	35	Y	FACU					
<u>3.</u>				Hydrophytic Veg	etation Indio	cators:		
4.				Dominance	Test is >50%	6		
5.				Prevalence	Index is ≤3.0	$)^1$		
<u>6.</u>				Morphologic	al Adantatio	ns ¹ (Pro	fice supp	ortina
7. 9				data in Rem	arks or on a	separat	e sheet)	Jiting
5.	85	=Total Co	ver	Problematic	Hydrophytic	: Vegetat	tion ¹ (Exp	lain)
Woody Vine Stratum: (Plot size:)				¹ Indicators of hydr	ric soil and w	vetland h	ydrology i	nust
1.				be present, unless	disturbed o	r probler	natic.	
2.				Lively an investig				
	0	=Total Co	ver	Vegetation Present?		Yes	No	x
% Bare Ground in Herb Stratum 5 %	6 Cover of Biotic Crus	t	0	Tresent.		105	_ 110 _	<u> </u>
Remarks: Heavy herbacious litter cover, beginning of	growing season, not a	able to ider	ntify all spec	ies.				

SOIL

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-12	10YR 3/4	100		0			Clay Loam	
					·			
Type: C=Co	ncentration, D=Deplet	ion, RM=Re	educed Matrix, CS=Co	overed or	Coated Sa	and Grains	. ² Location: Pl	_=Pore Lining, M=Matrix.
ydric Soil I Histosol Histic E Black H Hydroge Stratifier 1 cm Mu Deplete Thick Di Sandy N Sandy C	Indicators: (Applicabl (A1) pipedon (A2) istic (A3) en Sulfide (A4) d Layers (A5) (LRR C) uck (A9) (LRR D) d Below Dark Surface ark Surface (A12) Mucky Mineral (S1) Gleyed Matrix (S4)	le to all LR (A11)	Rs, unless otherwise Sandy Red Stripped M Loamy Mu Loamy Gle Depleted M Redox Dan Redox Dan Redox Dep Wernal Poo	e noted.) dox (S5) Matrix (S6) ocky Miner eyed Matri Matrix (F3) ork Surface Dark Surface Dark Surface Dark Surface Dark Surface Dark Surface	al (F1) x (F2)) : (F6) uce (F7) (F8)		Indicators fo 1 cm Mu 2 cm Mu Reduce Red Pau Other (E ³ Indicat wetta unl	or Problematic Hydric Soils ³ : uck (A9) (LRR C) uck (A10) (LRR B) d Vertic (F18) rent Material (TF2) Explain in Remarks) ors of hydrophytic vegetation and und hydrology must be present, ess disturbed or problematic.
Restrictive I Type: Depth (inch	Layer (if present):						Hydric Soil Pre	sent? Yes <u>No X</u>
Remarks: No) hydric soils present, r	no redox						

Wetland Hydrology Indicators:		
Primary indicators (minimum of one required: check	all that apply):	Secondary indicators (2 or more required):
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) 	 Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Presence of Reduced Iron (C Recent Iron Reduction in Tille Thin Muck Surface (C7) Other (Explain in Remarks) 	Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) X Drainage Patterns (B10) g Living Roots (C3) Dry-Season Water Table (C2) C4) Crayfish Burrows (C8) ed Soils (C6) X Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes No X D Water Table Present? Yes No X D Saturation Present? Yes No X D (includes capillary fringe) Describe Recorded Data (stream gauge monitoring	Depth (inches): Depth (inches): Depth (inches):	Wetland Hydrology Present? Yes X No votions), if available:
Remarks: Hydrology is driven by irrigation agricultur	e. Irrigation runs through the area.	Arid West – Version 2.

EXHIBIT J

Project Area Hydrology and Flood Inundation Study



HYDROLOGY AND FLOOD INUNDATION STUDY

POWERS BUTTE SOLAR PROJECT ADA & CANYON COUNTY, IDAHO KLEINFELDER PROJECT NO: 24001535.001A

January 5, 2024

Copyright 2023 Kleinfelder All Rights Reserved

ONLY THE CLIENT OR ITS DESIGNATED REPRESENTATIVES MAY USE THIS DOCUMENT AND ONLY FOR THE SPECIFIC PROJECT FOR WHICH THIS REPORT WAS PREPARED.

24001535.001A | RAL23R157595 © 2023 Kleinfelder January 5, 2024 www.kleinfelder.com

KLEINFELDER 3200 Gateway Centre Blvd. Suite 100, Morrisville, NC 27560 p | 919.755.5011



A Report Prepared for:

Savion Energy 422 Admiral Blvd Kansas City, MO 64106

HYDROLOGY AND FLOOD INUNDATION STUDY POWERS BUTTE SOLAR PROJECT ADA & CANYON COUNTY, IDAHO

Prepared by:

Mour Barto

Nora Barto Staff Engineer

Reviewed by:

UL

Jason Calhoun, PE Project Manager II

KLEINFELDER 3200 Gateway Centre Blvd, Suite 100 Morrisville, NC 27560 Phone: 919.755.5011

January 5, 2024

Kleinfelder Project No.: 24001535.001A



TABLE OF CONTENTS

1	EXEC	UTIVE SUMMARY	. 1
2	INTR	ODUCTION	. 2
	2.1	PROJECT DESCRIPTION	. 2
	2.2	DESIGN DATA AND METHODOLOGIES	. 2
3	PRE-	DEVELOPMENT FLOOD STUDY	4
4	REFE	RENCES	. 8
5	LIMI	۲ATIONS	9

TABLES

- 3-1 Pre-Development Manning's 'n' Values
- 3-2 Pier Scour Equation Assumptions

APPENDICES

- A Site Location Map
- B Floodplain Map
- C Precipitation Data
- D NRCS Soil Survey Report
- E Site Visit Field Report
- F Flood Model Boundary Map
- G Pre-Development Manning's 'n' Map
- H Pre-Development Curve Number Map
- I Pre-Development 100-YR 24-HR Flood Depth Map
- J Pre-Development 100-YR 24-HR Flood Velocity Map
- K Pre-Development 100-YR 24-HR Flood Scour Potential Map



HYDROLOGY AND FLOOD INUNDATION REPORT POWERS BUTTE SOLAR PROJECT ADA & CANYON COUNTY, IDAHO

1 EXECUTIVE SUMMARY

Savion Energy (Savion) is considering development of a 205 MW AC solar energy facility, located in Ada and Canyon County, Idaho. The property is located along Southside Boulevard, approximately 20 miles southwest of Boise, Idaho.

The project is located on approximately 2,385 acres of property and will include ground-mounted solar photovoltaic (PV) arrays and underground electrical conduits. Ancillary construction will consist of gravel access roads, perimeter fence, and pads for power transformers, inverters, and switchgear.

Hydrologic and hydraulic modeling analyses were performed to evaluate maximum flood depths, velocities and scour potential for the 100-year, 24-hour storm event associated with the pre-development condition of the proposed project area.

This report represents the pre-development hydrologic and hydraulic model results for the site. The predevelopment hydrologic and hydraulic model results are based on publicly available data described herein. Flood depths range from 0 to 1.5 feet and flood velocities range from 0 to 3 feet per second (fps) within the project area.



2 INTRODUCTION

2.1 PROJECT DESCRIPTION

The proposed solar site is approximately 2,385 acres and located along the Ada and Canyon County line, south of Stage Coach Road and east of Southside Boulevard. Refer to **Appendix A** for the location map.

The topography in the project area contains elevations ranging from approximately 2,722 to 2,906 feet – NAVD 88. All elevations listed in this report and provided in appendices are referenced to NAVD 88 unless otherwise noted.

2.2 DESIGN DATA AND METHODOLOGIES

Based on a review of the FEMA Flood Insurance Rate Map (FIRM)¹ panel 16001C0375G (effective February 19, 2003) and panel 16001C0400J (effective October 2, 2003), the project site is within FEMA unshaded Zone X floodplain. Zone X floodplains are at minimal risk of inundation. **Appendix B** shows the project boundary with the FEMA floodplain delineation obtained from the online FEMA mapping database.

The stormwater analyses of the proposed solar site were conducted in accordance with the Boise Stormwater Design Manual². Rainfall data at the project site for the design storm events was obtained from the NOAA Atlas 2 Precipitation Frequency Database³. **Appendix C** shows the rainfall depth data used for the study area. Type II 24-hour rainfall distribution was utilized for the 100-year, 24-hour storm event and average moisture conditions were utilized in all simulations.

Soil data was obtained from the National Resources Conservation Service (NRCS) Web Soil Survey⁴ database to determine soil type and runoff parameters. Refer to **Appendix D** for the soil types and hydrologic soil groups (HSG) defined in the study area. Soils within the study area generally have moderately high runoff potential. The most common HSG in the study area is soil group C. For this analysis, dual class soil groups were modeled as soil group D.

Topographic LiDAR (Light Detection and Ranging) Digital Elevation Model (DEM) was downloaded for the study area from the United States Geological Survey (USGS) data portal⁵. The elevation data was collected in 2018 and published in 2019. The DEM elevations were converted from meters to feet. This best



available USGS LiDAR data has 13 arc-second resolution, which resulted in a DEM with approximately 29 by 29 feet cell size. The DEM lacks definition at this resolution to show the elevations of features like ditches and roads within the project area. The DEM also included some interpolation artifacts in the eastern portion of the project area. A site-specific topographic survey is recommended to update the flood analysis as design progresses.

Land use and cover data were obtained from the 2019 National Land Cover Dataset (NLCD)⁶. Curve numbers for the study area were selected using the NRCS hydrologic soil groups, land use/land cover data for the pre-development conditions and the Urban Hydrology for Small Watersheds TR-55⁷ manual, as directed by the Boise Stormwater Design Manual.

Kleinfelder conducted a site visit on July 20, 2023, to observe existing conditions and site drainage considerations. Refer to **Appendix E** for the site visit field report.



3 PRE-DEVELOPMENT FLOOD STUDY

A hydrologic and hydraulic analysis was performed on the existing conditions of the proposed solar site to determine flooding depths and velocities during the 100-year 24-hour storm. The total flood model area is approximately 16,858 acres and includes upstream drainage areas that generate runoff to the project and downstream areas to simulate any tailwater conditions that may impact flooding onsite. Refer to **Appendix F** for the Flood Model Boundary Map.

The study area topography includes butte landforms in otherwise mildly sloping topography. The majority of the existing landcover is cultivated crops and herbaceous, with smaller areas of shrub/scrub and hay/pasture.

Onsite culvert sizes, material and condition were verified during the site visit. The USGS DEM utilized for the analyses did not contain some roads noted within Google Earth imagery and the site visit, which precluded the inclusion of some culverts. It is recommended that the analyses are updated after a topographic survey of the site is conducted, which may result in changes to the findings and therefore conclusions.

The pre-development flood analyses were simulated using the computer modeling software HEC-RAS⁸. HEC-RAS is a computer design program for modeling the hydraulics of open channel systems. The 2-dimensional (2D) capabilities of HEC-RAS version 6.4.1 were utilized for the solar site. HEC-RAS 2D can simulate water flow in multiple directions over large terrain. The topography used in the pre-development flood study is described in Section 2.2.

Variable Manning's 'n' values are utilized to represent ground roughness across the site. Manning's 'n' values were estimated based on pre-development land cover. Manning's 'n' values from NLCD types, which range from 0.027 to 0.16, were developed from the Boise Stormwater Design Manual Table G-5, with values from any excluded types developed using the HEC-RAS 2D Modeling User's Manual Table 2-19. Refer to Table 3-1 for Manning's 'n' values used in the analysis and **Appendix G** for the Pre-Development Manning's 'n' map.



MANNING'S 'n'	LAND COVER DESCRIPTION		
0.027	Barren Land		
0.03	Hay/Pasture		
0.035	Cultivated Crops		
0.038	Herbaceous, Open Water		
0.04	Developed, Open Space		
0.06	Shrub/Scrub		
0.09	Developed, Low Intensity		
0.12	Developed, Medium Intensity		
0.16	Developed, High Intensity		

TABLE 3-1: MANNING'S 'N' VALUES

A computational mesh made up of 100-foot cells was generated to conduct the analysis. Hydraulic breaklines were utilized at locations of hydraulic barriers (roads) and major conveyance locations (ditches, streams) discernable in the DEM. A variable computational time-step based on the Courant number was utilized to increase model efficiency. A Courant number-based time-step allows the model to adjust to large inflows or outflows throughout the simulation. The Full Momentum equations were utilized. The model was run for a simulation time of 48 hours, which allows the peak stage to pass through the entire study area after the 24-hour duration storm.

The hydrologic analysis of the flood model area was conducted using the NRCS Curve Number method. Kleinfelder utilized the 'Infiltration Layer' functionality within HEC-RAS to create a spatially variable representation of infiltration capacity and runoff generation within the study area. The NRCS Infiltration Method within HEC-RAS uses a unique curve number assigned to each land cover and soil type combination, and an abstraction ratio, to calculate the runoff from each cell within the model. An abstraction ratio of 0.2 was used for the study area. Refer to **Appendix H** for a map of the Pre-Development Flood Curve Numbers.

Normal depth and precipitation boundary conditions were utilized for the analysis. Normal depth slope boundary conditions were used in locations where water is expected to leave the site and are based on



the terrain slope. The precipitation hyetograph is based on NOAA Atlas 2 rainfall depths for the design storm and SCS Type II rainfall distribution, discussed above.

Refer to **Appendix I and J** for the resulting pre-development flood depth and velocity grids. Flood depths are less than 1.5 feet during the design simulation, with most of the project area inundated by less than 0.5 feet. Velocities within the project area range from 0 to 3 feet per second (fps).

A scour analysis was performed on the study area to determine locations of scour potential at array piers during the design storms in the existing condition. The scour analysis utilized the maximum depth and velocity results of the pre-development HEC-RAS flood model.

Kleinfelder utilized the HEC-18 pier scour Equation 7.1 provided in Hydraulic Engineering Circular No. 18: Evaluating Scour at Bridges Fifth Edition¹⁰ to assess scour potential surrounding the solar panel support piles. The HEC-18 pier scour equation is recommended for live-bed and clear-water pier scour and predicts maximum scour depths. Maximum Froude number and flood depth raster files were generated from the HEC-RAS flood model results and used in the scour calculations. This method can yield conservative scour estimates as it assumes the maximum flood depth and velocity occur at the same time, which may not be true onsite. Equation variable inputs and assumptions are listed in **Table 3-2**.

HEC-18 Equation 7.1

$$\frac{y_s}{y_1} = 2.0 \text{ K}_1 \text{ K}_2 \text{ K}_3 \left(\frac{a}{y_1}\right)^{0.65} \text{ Fr}_1^{0.43}$$

- y_s = Scour depth, ft (m)
- y_1 = Flow depth directly upstream of the pier, ft (m)
- K₁ = Correction factor for pier nose shape from Figure 7.3 and Table 7.1
- K_2 = Correction factor for angle of attack of flow from Table 7.2 or Equation 7.4
- K_3 = Correction factor for bed condition from Table 7.3
- a = Pier width, ft (m)
- L = Length of pier, ft (m)
- Fr_1 = Froude Number directly upstream of the pier = V₁/(gy₁)^{1/2}
- V1 = Mean velocity of flow directly upstream of the pier, ft/s (m/s)
- g = Acceleration of gravity $(32.2 \text{ ft/s}^2) (9.81 \text{ m/s}^2)$



VARIABLE INPUT		ASSUMPTION		
y1	HEC-RAS depth (ft)	Maximum flood depth		
K1	1.1	Square nose pier		
K2 1.125		Skew angle of flow is 30 degrees		
КЗ 1.1		Clear water scour		
a 6-inch		W-pile dimension		
L	4-inch	W-pile dimension		

TABLE 3-2: PIER SCOUR EQUATION ASSUMPTIONS

Scour calculations estimate that most of the project area is expected to experience less than 1.5 feet of scour. Areas of higher scour potential are located within deeper flood waters. Refer to **Appendix K** for the scour potential depth maps.

Kleinfelder recommends stabilizing all areas with velocities exceeding 2-fps with erosion control blanket and seeding for grass to grow. In areas with velocities exceeding 5 fps, using rip rap in place of the erosion control blanket and seeding to avoid excessive washout is recommended. Grading and longer pile-heights can be implemented in areas where flooding exceeds allowable depths.



4 REFERENCES

- Federal Emergency Management Agency. Flood Insurance Rate Maps and 100-year Floodplain Delineation from Web Database. Available at https://msc.fema.gov/portal/advanceSearch
- 2. City of Boise Public Works. 2018. Boise Stormwater Design Manual.
- National Oceanic and Atmospheric Administration. Atlas 14, Volume 8, Version 2. Precipitation Frequency Data Server. Available at: https://hdsc.nws.noaa.gov/hdsc/pfds/
- U.S. Department of Agriculture. Natural Resources Conservation Service. Web Soil Survey. Available at http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx
- 5. U.S. Geological Survey (USGS), National Elevation Dataset. Located at: https://viewer.nationalmap.gov/basic/
- 6. U.S. Geological Survey (USGS). 2019. National Land Cover Database (NLCD). Available at: https://www.mrlc.gov/data
- 7. U.S. Department of Agriculture, Natural Resources Conservation Service. 1986. Urban Hydrology for Small Watersheds TR-55.
- 8. U.S. Army Corps of Engineers. Hydrologic Engineering Center. March 2022. *HEC-RAS Version 6.4.1.*
- 9. HEC-RAS 2D Modeling User's Manual, Version 6.0, May 2021. Table 2-1 Page 2-21 to 2-23.
- 10. U.S. Department of Transportation Federal Highway Administration. Evaluating Scour at Bridges: Fifth Edition. April 2012.



LIMITATIONS

5

This work was performed in a manner consistent with that level of care and skill ordinarily exercised by other members of Kleinfelder's profession practicing in the same locality, under similar conditions and at the date the services are provided. Our conclusions, opinions, and recommendations are based on a limited number of observations and data known to date. It is possible that conditions could vary between or beyond the data evaluated. Kleinfelder makes no other representation, guarantee, or warranty, express or implied, regarding the services, communication (oral or written), report, opinion, or instrument of service provided.

The science of climate change and translating climate risks into design criteria are new and evolving practices, involving many uncertainties. The projections made in this report only reflect the professional judgment of the Project Team applying a standard of care consistent with the level of care and skill of other professionals undertaking similar work in the same locality under similar conditions at the date the services are provided. For these reasons, the recommendations, predictions, and projections made within this report provide guidelines based on the knowledge available to Kleinfelder as of the date provided based on Kleinfelder's review of the resources identified herein. Any predictions or projections made in this report are not guaranteed predictions or projections of future events. The nature and climate impacts may differ significantly from predictions based on currently available data. Kleinfelder recommends that the results of these evaluations be updated over time as science, data, and modeling techniques advance. Unless so engaged, Kleinfelder disclaims any undertaking to update these predictions in the future. Any reliance upon maps or data presented herein used to make decisions or conclusions is at the sole discretion and risk of the user. This information is provided with the understanding that the data is not guaranteed to be accurate, correct, or complete and assumes no responsibility for errors or omissions. This report may be used only by the Client and the registered design professional in responsible charge and only for the purposes stated for this specific engagement within a reasonable time from its issuance, but in no event later than two (2) years from the date of the report.

The work performed was based on project information provided by Client and publicly available information. This work is preliminary in nature and not intended to be used for permitting, design, or construction.



APPENDIX A

SITE LOCATION MAP

24001353.001A | RAL23R157595 © 2023 Kleinfelder





APPENDIX B

FLOODPLAIN MAP



rlateral	
2	
160	01C0400J
	Legend Project Boundary FEMA Firm Panel Streams FEMA Map Service Effective Floodplain X, Minimal flood hazard
4001535.001A 8/17/2023 NB	FEMA Floodplain Map
KC	Powers Butte Solar Project Savion Energy Ada & Canyon County, Idaho


APPENDIX C

PRECIPITATION DATA

24001353.001A | RAL23R157595 © 2023 Kleinfelder

Precipitation Frequency Data Output

NOAA Atlas 2

Idaho 43.4305092°N 116.5218909°W Site-specific Estimates

Мар	Precipitation (inches)	Precipitation Intensity (in/hr)
2-year 6-hour	0.65	0.11
2-year 24-hour	0.99	0.04
100-year 6-hour	1.53	0.26
100-year 24- hour	2.11	0.09

Go to PFDS Go to NA2

Hydrometeorological Design Studies Center - NOAA/National Weather Service 1325 East-West Highway - Silver Spring, MD 20910 - (301) 713-1669 Mon Aug 7 17:48:06 2023



APPENDIX D

NRCS SOIL SURVEY REPORT

24001353.001A | RAL23R157595 © 2023 Kleinfelder



Hydrologic Soil Group—Ada County, Idaho, and Canyon Area, Idaho (Savion Powers Butte Solar Project)



Natural Resources Conservation Service

USDA





Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
62	Garbutt silt loam, 4 to 8 percent slopes	В	6.6	0.0%
102	McCain silt loam, 2 to 4 percent slopes	С	113.9	0.7%
103	McCain silt loam, 4 to 8 percent slopes	С	606.9	3.6%
104	McCain silt loam, 8 to 12 percent slopes	С	222.2	1.3%
108	McCain stony silt loam, 8 to 12 percent slopes, extremely stony	C	21.9	0.1%
124	Potratz silt loam, 0 to 2 percent slopes	С	170.5	1.0%
125	Potratz silt loam, 2 to 4 percent slopes	С	49.2	0.3%
126	Potratz silt loam, 4 to 8 percent slopes	С	4.4	0.0%
127	Potratz-Power silt loams, 4 to 8 percent slopes	С	548.0	3.3%
130	Power silt loam, 2 to 4 percent slopes	С	71.7	0.4%
133	Power-McCain silt loams, 0 to 2 percent slopes	С	22.0	0.1%
134	Power-McCain silt loams, 2 to 4 percent slopes	С	209.8	1.2%
135	Power-McCain silt loams, 4 to 8 percent slopes	С	251.3	1.5%
136	Power-McCain silt loams, 8 to 12 percent slopes	С	328.9	2.0%
140	Power-Potratz silt loams, 2 to 4 percent slopes	С	214.8	1.3%
144	Purdam-Power silt loams, 0 to 2 percent slopes	С	185.7	1.1%
145	Purdam-Power silt loams, 2 to 4 percent slopes	С	76.1	0.5%

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
158	Rock outcrop-Trevino complex, 5 to 20 percent slopes		810.6	4.8%
160	Scism silt loam, 0 to 2 percent slopes	С	990.1	5.9%
161	Scism silt loam, 2 to 4 percent slopes	С	831.4	4.9%
162	Scism silt loam, 4 to 8 percent slopes	С	12.3	0.1%
163	Scism silt loam, bedrock substratum, 0 to 2 percent slopes	С	3.9	0.0%
164	Scism silt loam, bedrock substratum, 2 to 4 percent slopes	С	508.7	3.0%
165	Scism silt loam, bedrock substratum, 4 to 8 percent slopes	С	320.3	1.9%
166	Scism silt loam, bedrock substratum, 8 to 12 percent slopes	С	314.9	1.9%
Subtotals for Soil Survey Area			6,896.3	40.9%
Totals for Area of Interest			16,858.6	100.0%

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
BaE	Bahem silt loam, 12 to 30 percent slopes	В	180.2	1.1%
BaF	Bahem silt loam, 30 to 50 percent slopes	В	25.2	0.1%
Gp	Gravel pit		4.8	0.0%
MkA	Minidoka silt loam, 0 to 1 percent slopes	С	326.3	1.9%
MkB	Minidoka silt loam, 1 to 3 percent slopes	С	299.9	1.8%
MnC	Minidoka-Scism silt loams, 3 to 7 percent slopes	С	170.9	1.0%
MnD	Minidoka-Scism silt loams, 7 to 12 percent slopes	С	39.8	0.2%
РаВ	Potratz silt loam, 1 to 3 percent slopes	С	168.0	1.0%
PcC	Potratz-Power silt loams, 3 to 7 percent slopes	С	182.1	1.1%
PeB	Potratz-Power silt loams, 1 to 3 percent slopes	С	47.6	0.3%

USDA

Г

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
PeC	Potratz-Power silt loams, 3 to 7 percent slopes	С	46.0	0.3%
PhA	Power silt loam, 0 to 1 percent slopes	С	214.6	1.3%
PhB	Power silt loam, 1 to 3 percent slopes	С	292.1	1.7%
PLA	Playas		1.4	0.0%
PoA	Power-Potratz silt loams, 0 to 1 percent slopes	С	135.8	0.8%
РоВ	Power-Potratz silt loams, 1 to 3 percent slopes	С	313.9	1.9%
РрА	Power-Purdam silt loams, 0 to 1 percent slopes	С	742.3	4.4%
РрВ	Power-Purdam silt loams, 1 to 3 percent slopes	С	66.0	0.4%
ScA	Scism silt loam, 0 to 1 percent slopes	С	2,143.0	12.7%
ScB	Scism silt loam, 1 to 3 percent slopes	С	710.0	4.2%
ScC	Scism silt loam, 3 to 7 percent slopes	С	300.2	1.8%
ScD	Scism silt loam, 7 to 12 percent slopes	С	59.0	0.3%
SdA	Scism silt loam, deep over basalt, 0 to 1 percent slopes	С	222.3	1.3%
SdB	Scism silt loam, deep over basalt, 1 to 3 percent slopes	С	1,382.8	8.2%
SdC	Scism silt loam, deep over basalt, 3 to 7 percent slopes	С	1,072.2	6.4%
SdD	Scism silt loam, deep over basalt, 7 to 12 percent slopes	С	103.8	0.6%
TKE	Trevino-Rock outcrop complex, 0 to 20 percent slopes	D	470.7	2.8%
TrB	Trevino silt loam, 1 to 3 percent slopes	D	55.5	0.3%
TrD	Trevino silt loam, 3 to 12 percent slopes	D	130.3	0.8%
TuA	Turbyfill fine sandy loam, 0 to 1 percent slopes	A	10.4	0.1%

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
TuB	Turbyfill fine sandy loam, 1 to 3 percent slopes	A	8.3	0.0%
W	Water		36.9	0.2%
Subtotals for Soil Survey Area			9,962.3	59.1%
Totals for Area of Interest			16,858.6	100.0%

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Aggregation is the process by which a set of component attribute values is reduced to a single value that represents the map unit as a whole.

A map unit is typically composed of one or more "components". A component is either some type of soil or some nonsoil entity, e.g., rock outcrop. For the attribute being aggregated, the first step of the aggregation process is to derive one attribute value for each of a map unit's components. From this set of component attributes, the next step of the aggregation process derives a single value that represents the map unit as a whole. Once a single value for each map unit is derived, a thematic map for soil map units can be rendered. Aggregation must be done because, on any soil map, map units are delineated but components are not.

For each of a map unit's components, a corresponding percent composition is recorded. A percent composition of 60 indicates that the corresponding component typically makes up approximately 60% of the map unit. Percent composition is a critical factor in some, but not all, aggregation methods.

The aggregation method "Dominant Condition" first groups like attribute values for the components in a map unit. For each group, percent composition is set to the sum of the percent composition of all components participating in that group. These groups now represent "conditions" rather than components. The attribute value associated with the group with the highest cumulative percent composition is returned. If more than one group shares the highest cumulative percent composition, the corresponding "tie-break" rule determines which value should be returned. The "tie-break" rule indicates whether the lower or higher group value should be returned in the case of a percent composition tie. The result returned by this aggregation method represents the dominant condition throughout the map unit only when no tie has occurred.

Component Percent Cutoff: None Specified

Components whose percent composition is below the cutoff value will not be considered. If no cutoff value is specified, all components in the database will be considered. The data for some contrasting soils of minor extent may not be in the database, and therefore are not considered.

Tie-break Rule: Higher

The tie-break rule indicates which value should be selected from a set of multiple candidate values, or which value should be selected in the event of a percent composition tie.





APPENDIX E

SITE VISIT FIELD REPORT

24001353.001A | RAL23R157595 © 2023 Kleinfelder



APPENDIX F

FLOOD MODEL BOUNDARY MAP

24001353.001A | RAL23R157595 © 2023 Kleinfelder



APPENDIX G

PRE-DEVELOPMENT MANNING'S 'N' MAP



APPENDIX H

PRE-DEVELOPMENT CURVE NUMBER MAP



APPENDIX I

PRE-DEVELOPMENT 100-YR 24-HR FLOOD DEPTH MAP



APPENDIX J

PRE-DEVELOPMENT 100-YR 24-HR FLOOD VELOCITY MAP



APPENDIX K

PRE-DEVELOPMENT 100-YR 24-HR FLOOD SCOUR MAP

EXHIBIT K

Canyon County Visual Resources Technical Simulations







KOP 2 - Melmont Road

Base Photographic Documentation Latitude, Longitude (degrees):

43.41566, -116.53128 Viewpoint Elevation (feet):2,670 Camera Height (meters): 1.5 Camera Heading (degrees): 10

7 ft

4.5 ft

Camera Make & Model: Canon EOS 5D Mark IV Camera Sensor Size (mm): 36 x 24 Full Frame Crop Factor:

1x Lens Make & Model: AF-P Nikkor Lens Focal Length (mm): 50

Image Size (pixels): 6720 x 4480















KOP 3 - Stage Coach Road

Base Photographic Documentation Latitude, Longitude (degrees):

43.44464, -116.52570 Viewpoint Elevation (feet):**2,754** Camera Height (meters): **1.5** Camera Heading (degrees):

180 Camera Make & Model: Canon EOS 5D Mark IV Camera Sensor Size (mm): 36 x 24 Full Frame Crop Factor:

1x Lens Make & Model: AF-P Nikkor Lens Focal Length (mm): 50

Image Size (pixels): 6720 x 4480









Simulation was prepared using information provided by client. Locations, colors, and heights may vary based on final engineering and design.



Approximate Distance to Nearest Panels:

Project Location







0.22 mile

KOP 5 - Track Road

Base Photographic Documentation Latitude, Longitude (degrees):

43.43809, -116.54561 Viewpoint Elevation (feet):**2,681** Camera Height (meters): **1.5** Camera Heading (degrees):

90 Camera Make & Model: Canon EOS 5D Mark IV Camera Sensor Size (mm): 36 x 24 Full Frame Crop Factor: 1x

Lens Make & Model: **AF-P Nikkor** Lens Focal Length (mm): **50**

Image Size (pixels):

6720 x 4480

























KOP 7 - Southside Boulevard

Base Photographic Documentation Latitude, Longitude (degrees):

43.43222, -116.53366

Viewpoint Elevation (feet):**2,859** Camera Height (meters): **1.5**

Camera Heading (degrees):

80 Camera Make & Model: Canon EOS 5D Mark IV Camera Sensor Size (mm): 36 x 24 Full Frame

Crop Factor:

1x Lens Make & Model: AF-P Nikkor Lens Focal Length (mm): 50

Image Size (pixels): 6720 x 4480







EXHIBIT L

Agency Acknowledgement Form

Canyon County Agency Outreach

Agency	Point of Contact	Communication Log
SW District Health	Valerie Greer (Idaho Department of Environmental Quality)	12/15/2023 – phone discussion 12/18/2023 – phone discussion
Nampa Highway District	Eddie Thiel	12/12/2023 – in-person meeting
Melba Rural Fire Protection District	Kenny Hoagland (deputy fire marshal)	12/11/2023 – in-person meeting
Boise Project/Irrigation	Tom Rithauler	12/12/2023 – phone discussion, in-person meeting to be scheduled

Signatures to be provided by date of hearing.

EXHIBIT M

Letter from Idaho Fish and Game Department
From:	<u>Flack,Brandon</u>
То:	Anneke Solsby
Cc:	Mitchell Taylor; Stephanie Blochowiak; Brenna Garro
Subject:	RE: Powers Butte Energy Center (Ada and Canyon counties) - Request for Information
Date:	Friday, December 22, 2023 12:43:45 PM
Attachments:	image003.png
Actuellineites	mageoosiping

Hi Anneke,

The Idaho Department of Fish and Game (IDFG) has received your request for information related to the Powers Butte Energy Center Project, a 250-megawatt solar power and 200-megawatt battery energy storage project on approximately 2,385 acres located 1.5 miles southeast of the Bowmont in both Ada County and Canyon County, Idaho. This email serves as an IDFG letter addressing fish, wildlife, and plant resources as a component of the natural features of the property, including any sensitive plant and wildlife species recorded in the project vicinity.

IDFG has not conducted specific wildlife surveys on the property. The Idaho Fish and Wildlife Information System (IFWIS) database contains observation records of 3 Idaho Species of Greatest Conservation Need (SGCN) on the project property and 3 additional SGCN within 1 mile of the property boundary.

SGCN Observed on Project Property			
	Species Name	SGCN Tier	State Rank
	California gull	2b	S3B, S2N
	Hoary bat	2	S3
	Ring-billed gull	3b	S2B, S2N
SGCN Observed within 1 mile of Project Property			
	Species Name	SGCN Tier	State Rank
	California gull	2b	S3B, S2N
	Ferruginous hawk	2	S3B
	Golden eagle	2	S3
	Hoary bat	2	S3
	Pygmy rabbit	2	S3
	Rina-billed aull	3b	S2B, S2N

Definitions of SGCN tiers can be found in the Idaho State Wildlife Action Plan (<u>https://idfg.idaho.gov/swap</u>) and definitions of state ranks can be found here: <u>https://idfg.idaho.gov/species/taxa/ranks</u>

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.

Thank you for your interest in the state's fish, wildlife, and plant resources. Please feel free to contact me with additional information needs or other questions.

Regards,

Brandon Flack

Regional Technical Assistance Manager

Idaho Dept. of Fish and Game Southwest Region 15950 N. Gate Blvd. Nampa, ID 83687 Ph: (208) 854-8947



From: Anneke SolsbySent: Friday, December 15, 2023 3:16 PMTo: Flack,Brandon <brandon.flack@idfg.idaho.gov>Cc: Mitchell Taylor; Steph

; Stephanie Blochowiak

Subject: Powers Butte Energy Center (Ada and Canyon counties) - Request for Information

CAUTION: This email originated outside the State of Idaho network. Verify links and attachments BEFORE you click or open, even if you recognize and/or trust the sender. Contact your agency service desk with any concerns.

Hi Brandon –

Savion, LLC (Savion), doing business as Powers Butte Energy Center, LLC is proposing the construction and operation of the utility-scale Powers Butte Energy Center (Project), which would consist of an up to 250-megawatt (MW) solar photovoltaic (PV) generation array, 200-MW battery energy storage system (BESS), and ancillary facilities on approximately 2,385 acres of privately-owned lands in both Ada County and Canyon County, Idaho. The Project Area is located approximately 1.5 miles southeast of Bowmont, Idaho (see attached kmz).

We anticipate submitting land use applications to Ada and Canyon counties in mid-January for the Project. Therefore, we are requesting a letter from Idaho Dept of Fish & Game regarding protected wildlife on the site to inform permit development and review for sensitive wildlife and critical habitat review for the site. Our environmental consultant, SWCA, conducted a preliminary records search of sensitive plant and wildlife and special-status species using data from the Idaho Conservation Data Center and USFWS databases followed by pedestrian surveys last spring for a general habitat characterization and identifying potential areas for slickspot peppergrass. The survey results are attached. Additional surveys will be conducted prior to construction, as pertinent, in consideration of feedback from IDFG and USFWS.

Please let me know if you have any questions or need anything else to inform your review.

Thank you in advance!

Anneke Solsby | Director, Permitting & Environmental 503.894.0258 | Savion, LLC



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

JANUARY 2024

PREPARED FOR

Powers Butte Energy Center, LLC

PREPARED BY

SWCA Environmental Consultants

CANYON 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

Canyon County Development Services Department 111 North 11th Avenue Caldwell, Idaho 83605

January 2024

CONTENTS

1	Introduction	1
	1.1 Proposed Use and Application Summary	1
	1.2 Executive Summary and Project Outreach	2
	1.3 Conformance with Canyon County Land Use and Zoning	7
	1.4 Consistency with Canyon County Comprehensive Plan	7
2	Site and Operation Plan	9
-	2.1 Site Plan	9
	2.1 She Flam)
	2.1.2 Proposed Use and Structures	9
	2.1.3 Existing and Proposed Roads	. 12
	2.1.4 Off-Street Parking and Loading (CCZO 7-13-1)	. 12
	2.1.5 Temporary Construction Laydown Areas	.12
	2.1.6 Reserved Open Space	. 12
	2.1.7 Proposed Utility Easements	. 13
	2.2 Operation Plan	. 13
	2.2.1 Time Requirements	. 13
	2.2.2 Commencement of the Operation	13
	2.2.3 Employees and Hours of Operation	11
	2.2.4 Noise Levels	14 14
	2.2.5 Dust Levels	14
	2.2.7 Water Quality	.14
	2.2.8 Raw Material Delivery	. 15
	2.2.9 Finished Product and Marketing	. 15
	2.2.10 Site Improvements	. 15
	2.3 Decommissioning	.15
3	Letter of Intent (CCZO 7-7-5)	. 16
	3.1 Conformance with Zone District	.17
	3.2 Nature of the Request	.17
	3.3 Consistency with the Comprehensive Plan	17
	3.4 Proposed Use Compatibility with the Character of the Area	17
	3.4.1 Existing Conditions	.18
	3.5 Adequate Facilities	26
	3.5.1 Water and Irrigation	.26
	3.5.2 Sewer	.26
	3.5.3 Drainage and Stormwater Drainage Facilities	.26
	3.5.4 Utility Systems	. 26
	3.6 Legal Access	.27
	3.7 Potential Impacts to Existing or Future Traffic Patterns	. 27
	3.8 Potential Impacts to Essential Services	. 27
	3.8.1 Schools	. 27
	3.8.2 Irrigation Facilities	. 27
	3.8.3 Emergency Services	. 28
4	Use Standards: Wind Farm	. 28
	4.1 Lot Size	. 28

	4.2	Lot Configuration	. 28
	4.3	Proximity to Neighboring Structures	. 29
	4.4 Topography		. 29
	4.5	Viewsheds	. 29
5	Land	Use Worksheet	. 31
6	Pre-H	Iearing Requirements	. 31
	6.1	Neighborhood Meeting	. 31
	6.2	Agency Consultations and Communications	. 31
7	Refe	ences	. 32

Exhibits

- Exhibit A. Conditional Use Permit Checklist
- Exhibit B. Master Application Form with Signatures
- Exhibit C. Land Use Worksheet
- Exhibit D. Site Plan
- Exhibit E. Legal Description of the Canyon County Permit Boundary
- Exhibit F. List of Parcels in the Canyon County Permit Boundary
- Exhibit G. Property Deeds for the Canyon County Permit Boundary
- Exhibit H. Notice of Neighborhood Meeting and Meeting Sign-up Sheet
- Exhibit I. Project Area Aquatic Resources Delineation Report
- Exhibit J. Project Area Hydrology and Flood Inundation Study
- Exhibit K. Canyon County Visual Resources Technical Simulations
- Exhibit L. Agency Acknowledgement Form
- Exhibit M. Letter from Idaho Fish and Game Department

Figures

Figure 1. Project area location.	4
Figure 2. Project Area and Canyon County zoning.	5
Figure 3. Canyon County Permit Boundary in relation to Canyon County overlay districts	6
Figure 4. Canyon County Permit Boundary hydrologic features	19
Figure 5. Canyon County Permit Boundary soil map units (see Table 5).	23
Figure 6. Canyon County Permit Boundary National Land Cover Database land cover types	25
Figure 7. Topography within the Canyon County Permit Boundary.	30

Tables

Table 1. Canyon County Agency Outreach	3
Table 2. Allowed and Permitted Conditional Uses in the Agriculture Zone District	7
Table 3. Project Consistency with the Canyon County Comprehensive Plan 2023	8
Table 4. Aquatic Resources in the Project Area	20
Table 5. Soils in the Canyon County Permit Boundary	22
Table 6. Land Cover in the Canyon County Permit Boundary	24

This page intentionally left blank.

1 INTRODUCTION

Savion, LLC (Savion), doing business as Powers Butte Energy Center, LLC (Applicant), is pleased to file this application for a conditional use permit (CUP) to comply with the County Code of Canyon County, Idaho (County Code) and to support Canyon County's *Comprehensive Plan 2030* (General Plan) (Canyon County 2022). Savion is proposing the construction and operation of the utility-scale Powers Butte Energy Center (Project), which would consist of an up to 250-megawatt (MW) solar photovoltaic (PV) generation array and ancillary facilities and may include an up-to-200-MW battery energy storage system (BESS), on 2,385 acres of privately owned lands in both Canyon County and Ada County, Idaho; the Project straddles the Canyon County and Ada County line (Project area). The Project area is located approximately 1.5 miles southeast of Bowmont, Idaho (Figure 1).

The Project would include a utility-scale solar PV generation array, BESS, and ancillary facilities in Canyon County, with additional PV panels in the Ada County Permit Boundary (the portion of the Project within Ada County only). The PV generation arrays and associated infrastructure in the Ada County Permit Boundary 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 within and among the PV generation arrays (U.S. Department of Agriculture 2023).

The Applicant is filing this CUP application in accordance with the Canyon County Zoning Ordinance (CCZO), Chapter 7, Article 7, Zoning Regulations (CCZO 7) and all applicable standards in the County Code. This CUP application is for the Canyon County Permit Boundary (the portion of the Project within Canyon County only), which is proposed on approximately 1,028 acres of privately owned lands in Canyon County, zoned as Agriculture (A) and within the Intensive Agriculture Overlay District (IAO) (Figures 2 and 3). Another 1,356 acres of the Project area comprises privately owned lands under the jurisdiction of Ada County. A separate CUP application for the Ada County Permit Boundary will be prepared and submitted for review by Ada County.

1.1 Proposed Use and Application Summary

The proposed use in the Canyon County Permit Boundary is considered a similar use to a wind farm and is a permitted conditional use in land use zone A. A utility-scale solar PV generation array, up to 200-MW BESS, and ancillary facilities are proposed in the Canyon County Permit Boundary. This CUP application is organized to meet the requirements of CCZO 7-7 (Conditional Use Permits). The following exhibits supplement this application as required by Canyon County for the Powers Butte Energy Center Canyon County Permit Boundary:

- Exhibit A. Conditional Use Permit Checklist (CCZO 7-7-5 and CCZO 7-7-13)
- Exhibit B. Master Application Form with Signatures (CCZO 7-7-3)
- Exhibit C. Land Use Worksheet (CCZO 7-7-5)
- Exhibit D. Site Plan (CCZO 7-2-3)
- Exhibit E. Legal Description of the Canyon County Permit Boundary (CCZO 7-2-3)
- Exhibit F. List of Parcels in the Canyon County Permit Boundary (CCZO 7-1-15 and 7-2-3)
- Exhibit G. Property Deeds for the Canyon County Permit Boundary (CCZO 7-2-3 and 7-7-5)
- Exhibit H. Notice of Neighborhood Meeting and Meeting Sign-up Sheet (CCZO 7-1-15)

- Exhibit I. Project Area Aquatic Resources Delineation Report
- Exhibit J. Project Area Hydrology and Flood Inundation Study
- Exhibit K. Canyon County Permit Boundary Visual Resources Technical Simulations
- Exhibit L. Agency Acknowledgement Form
- Exhibit M. Letter from Idaho Fish and Game Department

1.2 Executive Summary and Project Outreach

This document and accompanying exhibits comprise the Powers Butte Energy Center, LLC, application for a CUP for an up to 250-MW utility-scale solar PV generation array in Canyon County, approximately 1.5 miles southeast of Bowmont, Idaho. Powers Butte Energy Center, LLC, is a wholly owned subsidiary of the Applicant. The Project will be constructed on land owned by the Applicant or land expected to be owned by the Applicant in Ada and Canyon Counties (Project area) with construction anticipated to begin in early 2025 and a planned commercial operation date as early as June 2026, pending application approval and the issuance of applicable zoning and building permits.

The portion of the Project within Canyon County (Canyon County Permit Boundary) will contain an array of ground-mounted solar PV panels, single-axis tracking structures to support the solar arrays, a power collection system, on-site substation, point-of-interconnection switchyard, generation interconnect (gentie) transmission poles and lines, and an operations and maintenance (O&M) building; the Project may also include an up to 200-MW BESS in Canyon County. Additionally, the Applicant is seeking opportunities to deploy one of a variety of agrivoltaic (multi-use solar photovoltaic and agriculture and/or grazing) options within the Project area. As of January 2024, the Applicant is in active discussions with the Idaho National Laboratory and is seeking to collaborate with the University of Idaho and Boise State University to maximize the potential opportunity to continue to use the land between rows of panels for continued agricultural operations. Additionally, the Applicant is already in discussions with a sheep grazer actively grazing under solar facilities in Idaho and are incorporating the recommended site requirements to ensure grazing could be feasible on this project.

The Project will help diversify Idaho and the region's energy sources while contributing to Idaho Power's statewide initiative of providing 100% clean energy by 2045. Additionally, Project construction is anticipated to create 400 jobs during construction, and four permanent jobs during Project O&M. The total amount of property tax generated by the Project is estimated to exceed \$20 million over the life of the Project (40 years).

The Applicant recognized that many local stakeholders are interested in the outcomes of the Project, especially immediate neighbors. To best incorporate stakeholder concerns into the Project, the Applicant has conducted outreach to various agencies (Table 1) and hosted a neighborhood meeting from 6 to 8 p.m. October 26, 2023, in Melba, Idaho, to provide Project information, gather public input, and respond to questions. A Project website (powersbutteenergycenter.com) has been active since October 2023 to provide information and an option to provide comments. The Applicant revised the preliminary site layout in response to public input received and continues to endeavor to act in a way that is respectful of Project neighbors. Revisions include, but are not limited to, removal and relocation of the proposed site for the BESS and a significantly increased setback along Southside Road. The Applicant moved the BESS from the westernmost portion of the Project area to a more interior location, allowing for reduced potential of visual and noise impacts from the BESS. This allows greater distance between residential areas while still meeting industry specifications and safety requirements. The BESS portion of the Project might be constructed after the solar array in a phased approach to construction and long-term operation commencement.

Agency	Point of Contact	Communication log
SW District Health	Valerie Greer (Idaho Department of Environmental Quality)	12/15/2023 – phone discussion 12/18/2023 – phone discussion
Nampa Highway District	Eddie Thiel	12/12/2023 – in-person meeting
Melba Rural Fire Protection District	Kenny Hoagland (deputy fire marshal)	12/11/2023 – in-person meeting
Boise Project/Irrigation	Tom Rithauler	12/12/2023 – Phone discussion, in-person meeting to be scheduled

Table 1. Canyon County Agency Outreach

The Applicant plans to conduct additional outreach, from in-person discussions with neighbors following the neighborhood meeting to local events in 2024 and will continue outreach throughout the development process. The Applicant works diligently to be a good neighbor and looks forward to bringing this Project to fruition in a way that is sensitive to those in this community.



Figure 1. Project area location.



Figure 2. Project Area and Canyon County zoning.



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

1.3 Conformance with Canyon County Land Use and Zoning

The proposed use in the Canyon County Permit Boundary is considered an Unspecified Use per CCZO 7-10-7; however, if a proposed use is similar to or accessory to at least one of the allowed or permitted uses in that particular zone, an applicant may receive permission for the similar or accessory use through a CUP. Currently, the CCZO does not define a use for solar energy facility, solar facility, centralized energy facility, or BESS. On October 25, 2023, the Director of Canyon County Development Services Department (DSD) confirmed the Project "should be processed as a use similar to a wind farm" (personal communication, email, Sabrina Minshall, Director, Canyon County Development Services Department, to Madelyn Vander Veen, Canyon County Development Services and forwarded to Anneke Solsby, Savion, LLC, October 26, 2023). A wind farm is a defined use in CCZO 7-2-3 as: "Multiple wind turbines grouped in a single location for the purpose of generating a large amount of electric power." The Project's proposed use is like a wind farm in that it consists of multiple solar arrays and a BESS grouped in a single location for the purpose of generating a large amount of electric power. The proposed Project meets the definition of a Similar Use per CCZO 7-2-3 in that it is a "use that has characteristics generally like those of a listed or defined use."

Per the CCZO 7-10-27 (Land Use Regulations Matrix), the following land uses are allowed in the Agricultural (AG) land use zone A: accessory uses and/or structures to allowed use; agricultural-related activities; landscape business; nursery; private tower with antenna; similar uses to allowed use; and utility distribution system. The following land uses are permitted by CUP in Agricultural (AG) zone: animal facility (large and small) (bird farm, calf-raising operation, dairy, feedlot, swine farm); ethanol plant; farm implement sales or service; fertilizer processing facility; food processing facility; long-term mineral extraction; wholesale retail nursery; commercial sale of hay, grain, seed, and related supplies; sanitary landfill; indoor shooting range; outdoor shooting range; similar uses to a conditional use; slaughterhouse; telecommunication facility; and wind farm (CCZO 7-10-27).

Wind Farms and Similar Uses to a Conditional Use are permitted conditional uses in the land use zone A, per CCZO 7-10-27 (Table 2). Additional discussion pertaining to siting is included in Section 4 of this CUP application.

Land Use	Zone District AG
Agriculture	А
Similar Uses to a Conditional Use	С
Similar Uses to Allowed Use	А
Wind Farm	С

Table 2. Allowed and Permitted Conditional Uses in the AgricultureZone District

Source: CCZO 7-10-27 Canyon County Land Use Regulations Matrix

Notes: A = Allowed Use, C = Permitted Uses through a Conditional Use Permit

1.4 Consistency with Canyon County Comprehensive Plan

The General Plan outlines Canyon County's goals, policies, and actions for long-term growth and development, and in accordance with the Idaho Local Land Use Planning Act. The proposed use supports

several General Plan goals as well as Idaho Power Western Treasure Valley Electrical Plan (Idaho Power 2023) as listed in Table 3.

|--|

General Plan Goal	Project Consistency
G1.01.00 – Protect the integrity of individual property rights while safeguarding public health, safety, and welfare.	The Applicant owns outright most of the Project area. The Project will conform to the county zoning codes, adhere to safety standards, and abate public nuisances on Project property.
G2.01.00 – Incorporate population growth trends and projections when making land-use decisions.	The Project will help provide clean energy to a region experiencing population growth.
G3.05.00 – Support a diverse economy in Canyon County and recognize that residential, commercial, and industrial uses are necessary components of overall economic stability.	The Project will use up to 400 full-time construction workers for up to 24 months.
G4.05.00 – Support a diversity of agricultural uses to sustain the agricultural and agriculturally related economy.	The Project will work to integrate the use of agrivoltaics, allowing for diverse development while preserving the agricultural character and economy of Canyon County.
G5.01.00 – Protect, enhance, and steward natural resources.	The Project will avoid any impacts to sensitive natural resources. Additionally, integrating agrivoltaics will potentially allow for natural features in the Project design and help protect ground and surface water in the area.
G7.01.00 – Endeavor to continue providing reliable public services, public safety facilities, and public utilities that support existing developed areas and future growth.	The Project will help diversify the energy sources for Canyon County, will jointly use utility corridors, and will not increase canal runoff.
G12.01.00 – Protect agricultural lands for long-term agricultural production from the encroachment of incompatible uses.	The Project's design proposes to use agriculture, helping preserve the agricultural character of the area and keeping the soil beneath the panels in its natural state, allowing for the absorption of water, in contrast to typical developments with impervious surfaces.
G13.01.00 – Promote the coordination of providers to develop plans for energy services and public utility facilities for the County's long-term energy and utility needs.	The Project will help to diversify Idaho's and the region's sources of energy while contributing to Idaho Power's statewide initiative of providing 100% clean energy by 2045.
P13.01.02 – Recognize and support the long-range planning of electricity infrastructure detailed in the Idaho Power Western Treasure Valley Electrical Plan.	This Project has an expected life of 40 years, which will help provide renewable energy to the region for the long term.
P13.01.05 – Encourage the development of renewable energy resources and enhance their capacity and reliability.	This Project will help to diversify Idaho's and the region's sources of energy while contributing to Idaho Power's statewide initiative of providing 100% clean energy by 2045.

Source: Canyon County (2022).

The IAO is described in the General Plan as an overlay district:

Applied to protect working lands and operations. These areas may have higher quality soils, water availability, and relatively flat topography. Uses may include seed production, crops, orchards, vineyards, concentrated animal feeding operations, grazing, and other agriculturally-based uses. This designation aims to protect agriculture operations from incompatible uses and reduce the conflicts concerning noise, dust, smells, and safety. (Canyon County 2022:28)

The Powers Butte Project is compatible with the intensive agricultural overlay. Due to the temporary use of the site, the underlying property is not removed from agricultural uses in perpetuity. Rather, to the extent possible, the underlying soils will be preserved and can be used for agricultures uses in the future. Further, the agrivoltaics component allows some agriculture use to continue throughout the duration of the Project. Unlike residential development adjacent to agricultural use, solar power generation is entirely

consistent with agriculture uses, and there are no conflicts between solar power use and agriculture use concerning noise, dust, smells, and safety.

2 SITE AND OPERATION PLAN

This section addresses the standards listed in the CUP Checklist (see Exhibit A). The organization of this section follows the CUP Checklist and responds to the Canyon County definitions of Site Plan and Operation Plan (CCZO 7-2-3). A Site Plan for the Canyon County Permit Boundary is provided in Exhibit D and shows the proposed use, structures, and roads discussed in this application. As required, the Site Plan includes lot lines, lot area, parking area, private roadways, walkways, topographic features, reserved open space, buildings and other structures, and major landscape features. A list of Canyon County Permit Boundary parcels is provided in Exhibit F, and property deeds are provided in Exhibit G. Details on Project components and features shown in the Site Plan are provided below.

2.1 Site Plan

2.1.1 Existing Uses and Structures

Existing land uses within the Canyon County Permit Boundary are primarily irrigated agriculture and existing transmission line corridors.

There are no existing buildings within the Canyon County Permit Boundary. Private residences, two agricultural retailers, and a substation are adjacent to the Canyon County Permit Boundary.

2.1.2 Proposed Use and Structures

The proposed use in the Canyon County Permit Boundary is a Similar Use to a Wind Farm. A utilityscale solar PV generation array and ancillary facilities are proposed in the Canyon County Permit Boundary with an up-to-200-MW BESS proposed as its own phase, that may or may not occur concurrently with the remainder of the solar facility. The Canyon County Permit Boundary is approximately 1,028 acres based on preliminary design, and the structures will be contained within this footprint. The final design may vary slightly based on final engineering and design requirements and coordination with permitting agencies, which will be reflected in the zoning permit application and subsequent building permits.

2.1.2.1 UTILITY-SCALE SOLAR PV GENERATION

2.1.2.1.1 Solar Arrays

Solar arrays in the Canyon County Permit Boundary include approximately 372,000 PV modules (panels) to convert solar energy into direct current (DC) electrical energy. The individual solar modules will be connected in a series to create "strings." The strings will be 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 panel, the individual tracker units will have a height of approximately 8 to

10 feet above grade. The solar arrays will be separated by a distance of 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 site. Steel piles will support the trackers and modules. The piles will be driven into the ground using pneumatic pounding and/or drilling techniques to varying depths depending on soil characteristics. After the steel piles have been 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 closer to final design and building plans.

2.1.2.1.2 Power Collection System

The DC electricity from the solar modules will be connected to power inverters to convert to the electricity to alternating current (AC), which is used by the regional electrical grid. Underground cables, either rated for direct bury or installed in a polyvinyl chloride conduit, will 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 is stepped up to the voltage of the electrical collection system (i.e., 34.5 kilovolt [kV]). From the inverters, medium-voltage wiring rated at 34.5 kV is encased in conduit and buried 18 to 24 inches below grade. This medium-voltage wiring is routed to the on-site substation and stepped up to 138 or 230 kV. The accumulated power is then transmitted to the Project's gen-tie line and routed to Idaho Power's Bowmont Substation where it will connect to the regional electric power grid.

2.1.2.2 ON-SITE SUBSTATION

The on-site substation will be located in the western portion of the Project area, west of the existing Bowmont Substation (see Exhibit D). Prior to construction, the substation location will be cleared and graded, and a bed of crushed rock will be applied to create a durable surface for construction and O&M activities. The substation will consist of transformers, transmission line termination structures, a bus bar, circuit breakers and fuses, control systems, meters, and other equipment. The approval of utility facilities (including substations) are a Director administrative decision in the A zone.

2.1.2.3 POINT OF INTERCONNECTION GEN-TIE TRANSMISSION POLES AND LINE

The Project will interconnect the Bowmont Substation via a short 0.1-mile 138-kV or 230-kV gen-tie line connecting the Project substation to the Idaho Power point of interconnection. The gen-tie will be constructed for the nominal operating voltage of the selected substation. Monopole, H-frame, and/or lattice structures will be used depending on Project needs and resource requirements. Final hardware design will be determined during final engineering of the gen-tie. The poles are anticipated to be less than 100 feet in height and are an allowed use per CCZO 07-10-09. If higher than 100 feet, the Applicant will provide Canyon County with appropriate Federal Aviation Administration compliance documentation.

2.1.2.4 UTILITY-SCALE BATTERY ENERGY STORAGE SYSTEM

As shown on the Site Plan Map (see Exhibit D), the up-to-200-MW BESS is proposed in the western portion of the Canyon County Permit Boundary, east of the intersection of Southside Boulevard and Rose

Lane on the south side of Rose Lane and east of the existing Idaho Power Bowmont to Canyon Creek 138-kV transmission line. The BESS will be approximately 7 acres and will be connected to the solar arrays via an AC-coupled system. The BESS may be constructed separately or in conjunction with the solar facility and is considered its own phase of the Project.

An AC-coupled system will be connected to a bidirectional inverter to convert DC energy to AC energy, allowing energy to flow in or out of the batteries to provide charge and discharge. The batteries would be located at a centralized location as a series of housing units similar to shipping containers. Power switches and relays would be installed for the purpose of protecting the system, and suitable site access and pads will contain the system.

2.1.2.5 ANCILLARY STRUCTURES

The ancillary structures in the Canyon County Permit Boundary are described below.

2.1.2.5.1 Operations and Maintenance Facility

The O&M facility will be located in Canyon County proximate to the on-site substation (see Exhibit D). The O&M facility will be constructed using a pre-engineered metal structure up to 5,000 square feet and will include a small administrative area with a supervisory control and data acquisition (SCADA) control room, a work area to perform minor repairs, and a storage area.

2.1.2.5.2 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 and cellular networks. The fiber-optic cables will primarily be buried with the on-site electrical distribution lines to the central computer. 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.

2.1.2.5.3 Exterior Lighting

Permanent outdoor night lighting will be installed at the BESS, O&M facility, water storage facility (if required by the fire department), and Project substation. 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 be designed to 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 additional details closer to final design and with building plans.

2.1.2.5.4 Perimeter Fencing and Gates

The Project will be fenced to restrict public access during construction and operations. The security fence will consist of one of several varieties including a wire mesh at 7-foor-high wire mesh with wood poles, a 7-foor-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 key stored in a Knox Box or other approved method.

2.1.2.5.5 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 County Code and provided with the building plans. Project associated signs will also comply with applicable guidelines from the Idaho Department of Transportation, Ada County Highway District, and the Nampa Highway District.

2.1.3 Existing and Proposed Roads

The Canyon County Permit Boundary is generally situated between the existing North Power Lateral Canal (north), Memont Road and Kuna Cave Road (south), Robinson Boulevard (east), and Track Road (west) and as shown in the Site Plan Map (see Exhibit D). The proposed internal site access roads in the Canyon County Permit Boundary are shown in Figure 2 and on the Site Plan in Exhibit D. If required, naming of internal Canyon County Permit Boundary private roads and any required private road signs will comply with CCZO 6-5-13 and CCZO 6-5-15 and will be provided closer to final design and with building plans. As part of the zoning permit application, the Applicant will demonstrate that the private road and driveway requirements have been met (CCZO 7-10-03). The Applicant has coordinated with the Nampa Highway District and has updated the site plan to reflect an increased road setback from the county line between Ada and Canyon County (setting back 100 feet on each side) and Rose Lane (setting back 40 feet each side) (CCZO 7-10-05).

2.1.4 Off-Street Parking and Loading (CCZO 7-13-1)

The off-street parking and loading facilities are in conformance with CCZO Sections 7-13-1 and 7-13-3. The Applicant believes the most similar use for parking requirements is that for "manufacturing establishments" (7-13-3). A designated parking and loading area will be located proximate to the main entrance of the Project off Southside Boulevard. A maximum of four parking spaces will be provided: one parking space for each employee (based on the greatest number of employees for long-term site operations and management).

2.1.5 Temporary Construction Laydown Areas

Up to four temporary laydown yards approximately 3 acres in size will be established within the fenced solar facility area during construction. These laydown yards will be used for office trailers (at one location), primarily be used for 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 laydown yards is shown in the Site Plan (see Exhibit D).

2.1.6 Reserved Open Space

No part of the Canyon County Permit Boundary is in an area designated as Reserved Open Space.

2.1.7 Proposed Utility Easements

The Applicant will continue working with Idaho Power, PacifiCorp, and the relevant irrigation districts to ensure an acceptable crossing of facilities is achieved. This will be provided, as required, with the building plans. Although not expected, if the Project requires the relocation of any utility easements, the Applicant will work closely with the applicable utility to facilitate such relocation.

2.2 Operation Plan

The future operations plan depends 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. At this time, construction is anticipated to start in early 2025.

2.2.1 *Time Requirements*

Construction activities are anticipated 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.

2.2.2 Commencement of the Operation

At present, construction is planned to commence in early 2025, and the Project is planned for a commercial operation date as early as June 2026. The Project schedule is still being developed and will be coordinated and reviewed with Canyon County.

2.2.3 *Employees and Hours of Operation*

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 approximately 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 Canyon County. Construction activities will require qualified engineers, surveyors, electricians, general contractors, projects managers, and general laborers with applicable industry requirements for utility-scale energy projects.

The Applicant does not anticipate the need for full-time staff on-site during Project operations, but approximately four personnel will be needed for periodic maintenance during the lifetime of the Project. Site 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 provide protection from the elements. Data from other solar facilities across the country indicate that panel washing may not be needed. Should this

not be the case, the PV panels may be washed up to 2 times per year to increase the average optical absorption of the panel surface.

2.2.4 Noise Levels

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

Once in operation, the inverters that are dispersed in the solar arrays, and the HVAC equipment for the BESS and the substation transformers will be the primary sources of noise. Generally, BESS facilities such as the one proposed are not louder than other typical activities in the area, for example, traffic during the busiest time of day for road travel, or ongoing noise level of the existing substation adjacent to the proposed Project. The noise levels from the Project are not anticipated to exceed acceptable noise levels listed in CCZO 07-14-27 of 55 A-weighted decibels (dBA) at the site's property line, the approximate equivalent of an average household refrigerator (Yale Environmental Health and Safety 2024).

2.2.5 Dust Levels

Short-term increases in dust emissions during construction will be mitigated by the implementation of a 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 has coordinated with the Idaho Department of Environmental Quality (IDEQ) and will work with the agency to secure any necessary dust-related permits.

The Project is expected to have minimal short-term impacts on dust during operations. Fugitive dust from occasional O&M activities will be minimal.

2.2.6 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 a 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 before construction begins.

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

2.2.7 Water Quality

During construction, water will be used for compaction of electrical trenches and foundations, dust control (including truck wheel washing), and non-potable water for the temporary construction trailer. Water may be used for panel washing during operations, if needed. The source of water will be the water wells associated with the land. No adverse impacts to surface water or groundwater are anticipated. The

Project will comply with all IDEQ permits and will secure water quality-related permits before construction begins.

2.2.8 Raw Material Delivery

Construction materials and supplies will be delivered to the Project area via truck (see Exhibit D, Site Plan). Approximately 20 trucks per day are expected to deliver various materials and construction equipment. Between one and four temporary laydown yards approximately 3 acres in size 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.

2.2.9 Finished Product and Marketing

The proposed Project will provide new electricity into the regional transmission grid while contributing to Idaho Power's goal of providing 100% clean energy by 2045 (Rodriguez 2021). The proposed Project's BESS will balance electrical load on the transmission grid by moving energy during times of low and high demand. The BESS will provide energy storage to reduce load on congested transmission and distribution systems, reduce the need for costly grid upgrades, and add generation to meet periods of systemwide peak load.

2.2.10 Site Improvements

All proposed structures and site improvements are described in the following sections and are shown in the Site Plan, Exhibit D. Proposed site improvements comply with CCZO 7-17-31.

2.2.10.1 PUBLIC AND PRIVATE FACILITIES

The proposed use will be privately owned and operated. No public facilities are planned.

2.2.10.2 PUBLIC AMENITIES AND INFRASTRUCTURE

The proposed Project will provide a reliable source of renewable energy that will benefit the public in Canyon County and the region. The Project area will be gated and fenced for site security and public safety. All infrastructure proposed as part of the Project is shown in the Site Plan (see Exhibit D) and described in Section 2.

2.3 Decommissioning

The Project is expected to have a useable lifespan of approximately 40 years. After the Project is no longer operational, it will be decommissioned and the Project area will be reclaimed. The

decommissioning process and procedures will be 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 Canyon 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 above-ground 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 LETTER OF INTENT (CCZO 7-7-5)

This section is provided to address the standards listed in the CUP Checklist (see Exhibit A). The organization of this section follows and responds to CCZO 7-7-5(1-8) (Hearing Criteria):

- 1. Is the proposed use permitted in the zone by conditional use permit;
- 2. What is the nature of the request;
- 3. Is the proposed use consistent with the comprehensive plan;
- 4. Will the proposed use be injurious to other property in the immediate vicinity and/or negatively change the essential character of the area;
- 5. Will adequate water, sewer, irrigation, drainage and stormwater drainage facilities, and utility systems be provided to accommodate the use;
- 6. Does legal access to the subject property for the development exist or will it exist at the time of development;
- 7. Will there be undue interference with existing or future traffic patterns; and
- 8. Will essential services be provided to accommodate the use including, but not limited to, school facilities, police and fire protection, emergency medical services, irrigation facilities, and will the services be negatively impacted by such use or require additional public funding in order to meet the needs created by the requested use?

3.1 Conformance with Zone District

The proposed use in the Canyon County Permit Boundary is considered a Similar Use to a Wind Farm per the determination by the DSD Director on October 25, 2023, and is a CCZO permitted conditional use in land use zone A. The Canyon County Permit Boundary does not overlap any Area of City Impact as described in CCZO 7-10-23.

3.2 Nature of the Request

This CUP application is for the proposed construction and operation of the portion of the Powers Butte Energy Center proposed in Canyon County. The use in the Canyon County Permit Boundary would contribute to the overall Project, an up-to-250-MW solar PV generation array, up-to-200-MW BESS, and ancillary facilities on approximately 1,028 acres of privately owned land in Canyon County, Idaho, approximately 1.5 miles southeast of Bowmont, Idaho (see Figure 2). The Project will play a crucial role in enhancing grid resilience by diversifying the energy sources and decentralizing energy production in the region. By generating electricity closer to where it is consumed, the Project will minimize the dependency on long-distance transmission lines and vulnerable power plants.

3.3 Consistency with the Comprehensive Plan

The proposed use is consistent with the General Plan and could support the realization of several goals as listed in Table 3 in Section 1.3.

Almost all the land not in an Impact Area or designated as open space in Canyon County is designated IAO. The Impact Areas are needed to support expected continued community growth such as for residential and commercial development close to existing urban development and related public resources and infrastructure and therefore would not be suitable for a utility-scale solar project. Therefore, siting the Project outside the IAO is not feasible. The Project would not preclude agricultural use when the land is used for a solar facility; is compatible with adjacent agricultural uses due to no operational impacts to traffic, dust, soils, or water as previously described; preserves the land for agricultural use in the future; and will maintain the rural feel of the surroundings. Therefore, the Project is consistent with the IAO to protect agriculturally based uses from incompatible uses and conflicts.

3.4 Proposed Use Compatibility with the Character of the Area

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 vicinity as noted throughout this application. The proposed use is compatible with existing agricultural, commercial, industrial, and residential uses and the character of the area. The Project is compatible with adjacent uses as it has no operational impacts to traffic, dust, soils, or water as previously described, and preserves the land for agricultural use in the future. Moreover, the Project will maintain the rural feel of the surrounding area because the panels will be low in height (panels are expected to be 8 to 10 feet high at full tilt). Additionally, the site plan incorporates substantial setbacks from major roads, and the area under the panels is expected to be vegetated.

3.4.1 Existing Conditions

This section provides a summary of Canyon County Permit Boundary existing land use and resource conditions and how the preliminary design and proposed use is responding to existing conditions.

3.4.1.1 AQUATIC RESOURCES

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 Idaho Fish and Game Department (IDFG), IDEQ, and other state and local agencies, as required.

3.4.1.1.1 Hydrology

The Applicant's consultant (SWCA Environmental Consultants [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 2,385.18-acre wetland field survey conducted in Ada and Canyon Counties between April 24 and 27, 2023 (Exhibit I). The field survey did not differentiate between aquatic resources in Ada and Canyon Counties, so the results for both counties are discussed together.

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 I). The Waldvogel Canal, C07, flows through the eastern portion of the Project area (referred to as Survey Area in Exhibit I) 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. A copy of the aquatic resources delineation report is provided in Exhibit I. A hydrology and flood inundation report was also conducted for the Project and is included as Exhibit J.

There are no stream corridors in the Canyon County Permit Boundary and the Project layout has been designed to avoid adverse impacts to sensitive hydrologic features and impacts to drainages. Detailed maps of all aquatic features delineated on site in the Project area are provided in Exhibit I. The analysis of hydrologic features also includes wetlands and floodplains as described below.



Figure 4. Canyon County Permit Boundary hydrologic features.

3.4.1.1.2 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 I).

The initial 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.

The mapped aquatic resources delineated in the survey areas are summarized in Table 4. The Project footprint will avoid natural wetlands and drainages.

This section provides a summary of Canyon County Permit Boundary existing land use and resource conditions, and how the preliminary design and proposed use is responding to existing conditions.

Aquatic Resource ID	Number of Aquatic Resources	Total Wetland Acreage
Human-made pond	4	2.60
Canal	7	4.57
Total	11	7.17

Table 4. Aquatic Resources in the Project Area

3.4.1.1.3 Floodplains

Federal Emergency Management Agency maps were evaluated to determine potential for flooding in the Project area (Federal Emergency Management Agency 2021). 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 J.

3.4.1.2 HISTORIC RESOURCES

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."

The closest mapped NRHP-listed resource is the Diversion Dam and Power Plant Building, which is approximately 6 miles northeast of the Project area, southeast of the Boise River in Ada County. A desktop file search and literature review results indicate that 68 previous cultural resources projects have

been conducted in and within 1 mile of the Project area. These projects were conducted between 1989 and 2022 (SHPO 2022).

3.4.1.3 LAND USE

The Project area is currently used for agricultural use, primarily cultivated alfalfa. Adjacent uses include rural residences, public utilities, and a commercial soils, barks, mulches distributer. The Project does not preclude agricultural use when the land is used for a solar facility; is compatible with adjacent agricultural uses due to no operational impacts to traffic, dust, soils, or water as previously described; and preserves the land for agricultural use in the future. Moreover, the Project will maintain the rural feel of the surroundings because the panels will be low in height; panels are expected to be 8 to 10 feet high at full tilt, the site plan incorporates substantial setbacks from major roads, and the area under the panels will be vegetated. The only areas that will not have a vegetated base are at the substation, O&M facility, and BESS, which will have gravel around them. Per CCZO 07-10-15: In residential and agricultural zones, no county regulations regulate the maximum area of a lot which can be covered by impervious surface. Therefore, other allowed or conditionally allowed uses would likely substantially impact the property more than the proposed Project.

As shown on the site plan, the Project will meet or exceed all setbacks shown in CCZO Section 07-10-21 (Front 30 feet, Side 10 feet, Rear 20 feet, Corner 30 feet). The BESS, O&M facility, and substation will each be less than 35 feet high (CCZO 07-10-21-3). The transmission poles will be less than 100 feet high, and if they will be higher than 100 feet, the Applicant will have the appropriate approvals from the Federal Aviation Administration.

3.4.1.4 SENSITIVE PLANT AND WILDLIFE SPECIES

A U.S. Fish and Wildlife (USFWS) Information for Planning and Consultation (IPaC) query found that there is one Endangered Species Act (ESA)–listed wildlife species, yellow-billed cuckoo (*Coccyzus americanus*); one candidate insect species for listing under the ESA, monarch butterfly (*Danaus plexippus*); and one ESA-listed plant species, slickspot peppergrass (*Lepidium papilliferum*) that have potential to occur in or near the Project area (USFWS 2022). There is no designated or proposed critical habitat for any of these species in the Project area; however, according to a desktop review, approximately 526 acres (30%) of the Project is located within the potential habitat for slickspot peppergrass (an ESA-listed threatened species). Additionally, this species is known to occur within Canyon County (IDFG 2022a).

Several migratory bird species are likely to occur in the Project area (USFWS 2022). Based on review of IDFG species data, no ESA-listed wildlife species occur in Canyon County (IDFG 2022a). The Project area is also within the known ranges for elk (*Cervus elaphus*) and mule deer (*Odocoileus hemionus*) (IDFG 2022b, 2022c). Golden eagle (*Aquila chrysaetos*) may forage within the Project area (IDFG 2024).

IDFG species data show that the greater sage-grouse (*Centrocercus urophasianus*) occurs in Canyon County and may occur near the Project area (IDFG 2019, 2020). This species is not listed under the ESA but was a candidate for listing between 2010 and 2015 and remains a species of management concern for many federal agencies (e.g., Bureau of Land Management, U.S. Forest Service, and USFWS). The Project area is not located in a designated habitat management or conservation area for greater sage-grouse (IDFG 2019, 2020).

Field surveys of the Project area were conducted between April 24 and 27, 2023, to evaluate habitat for slickspot peppergrass and yellow-billed cuckoo (SWCA 2023). 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. There was no suitable habitat for yellow-billed cuckoo in the Project area.

The Applicant has shared the results of the fieldwork with IDFG and in response, Brandon Flack with IDFG stated: "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" (see Exhibit M). Additional preconstruction field surveys for sensitive nesting species will be conducted, as necessary, in compliance with state and federal law.

3.4.1.5 SOILS

A desktop review of soils data from the Natural Resources Conservation Service (NRCS 2022) was conducted for the Canyon County Permit Boundary to identify soil types and slopes by acreage. The results are shown in Figure 5 and Table 5. The predominant soil type is the Scism silt loam, deep over basalt, on 3 to 7 percent slopes (soil unit SdC). Shallow sloping areas are well suited for solar installations. The Applicant will obtain an Idaho Pollutant Discharge Elimination System (IDPES) permit prior to construction.

Map Unit Symbol*	Soil Unit Name	Area (acres)
SdC	Scism silt loam, deep over basalt, 3 to 7 percent slopes	268.0
PhB	Power silt loam, 1 to 3 percent slopes	258.9
PcC	Potratz-Power silt loams, 3 to 7 percent slopes	153.6
TkE	Trevino0Rock outcrop complex, 0 to 20 percent slopes	108.6
SdB	Scism silt loam, deep over basalt, 1 to 3 percent slopes	87.6
TrD	Trevino silt loam, 3 to 12 percent slopes	33.4
BaE	Bahem silt loam, 12 to 30 percent slopes	29.5
PhA	Power silt loam, 0 to 1 percent slopes	25.0
PeC	Potratz-Power silt loams, 3 to 7 percent slopes	22.3
PaB	Potratz silt loam, 1 to 3 percent slopes	17.2
PeB	Potratz-Power silt loams, 1 to 3 percent slopes	9.7
ScD	Scism silt loam, 7 to 12 percent slopes	6.4
TrB	Trevino silt loam, 1 to 3 percent slopes	5.0
ScB	Scism silt loam, 1 to 3 percent slopes	2.2
145	Purdam-Power silt loams 2 to 4 percent slopes	0.5
164	Scism silt loam, bedrock substratum, 2 to 4 percent slopes	0.4
158	Rock outcrop-Trevino complex, 5 to 20 percent slopes	0.1
Total		1,028

Table 5. Soils in the Canyon County Permit Boundary

Source: NRCS (2023).

* Soil unit number corresponds to soil units mapped in Figure 5.



Figure 5. Canyon County Permit Boundary soil map units (see Table 5).

3.4.1.6 VEGETATION

A desktop review of the USGS's National Land Cover Database (USGS 2019) indicates that the Project area primarily consists of herbaceous and shrub-scrub land cover categories (Table 6, Figure 6). Remaining land cover types make up less than 1% of the Project area (see Table 6). Field surveys of vegetation and habitats in the Project area were performed by qualified biologists between April 24 and 27, 2023, and on September 4, 2023, to inform the design and construction process (see Exhibit I). A vegetation management plan will be developed for implementation during Project construction and O&M.

Land Cover Category	Acreage in Project Area	Percentage of Project Area
Cultivated Crops	873.6	84.9%
Herbaceous	79.6	7.7%
Shrub/Scrub	42.4	4.1%
Developed, open space	12.9	1.3%
Hay/Pasture	10.4	1.0%
Developed, low intensity	7.4	0.7%
Developed, medium intensity	2.0	0.2%
Total	1,028.4	100.0%

Table 6. Land Cover in the Canyon County Permit Boundary

Source: USGS (2019)



Figure 6. Canyon County Permit Boundary National Land Cover Database land cover types.

3.4.1.7 VISUAL RESOURCES

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 K. Ultimately, due to terrain and topography that shield some areas of the Project, substantial setbacks from roads, low height of solar panels, spacing/limited density of solar panels, and vegetated ground cover, the Project will not create a visual impact that significantly changes the overall rural feel of the surroundings.

3.5 Adequate Facilities

3.5.1 Water and Irrigation

During construction, water will be used for compaction of electrical trenches and foundations, dust control (including truck wheel washing), and non-potable water for the temporary construction trailer. During O&M, 5 to 15 acre-feet of water may be used annually for panel washing, if needed. 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. No adverse impacts to surface water or groundwater are anticipated. The Project will comply with all IDEQ permits and will secure water quality–related permits prior to commencement of construction.

The Applicant envisions reduced use of on-site wells with minimal operational water requirements (5–10 acre-feet per year for operations of the solar facility), dust suppression during construction, and reduced water use from more direct and less consumptive agrivoltaic irrigation practices. Some water may be stored on-site for fire suppression during construction and O&M if deemed necessary in the Wildfire Management Plan. The O&M facility will require potable water and septic; the Applicant anticipates using an on-site well for this and will work with the IDEQ to ensure acceptable and appropriate design and disposal practices are maintained.

3.5.2 Sewer

Portable sanitary stations will be used and maintained by a vendor during construction.

The Project will need a septic/sewage disposal system at the O&M facility. Because it is a septic system, the Project will not place a burden on existing sewer infrastructure. The Applicant will obtain required permits from IDEQ, Southwest District Health, and Canyon County.

3.5.3 Drainage and Stormwater Drainage Facilities

The Applicant has prepared a hydrology and flood inundation study for the Project area (see Exhibit J). The Project will comply with CCZO 07-17-33 such that all graded surfaces and erosion prevention devises and drainage structures will be repaired and maintained. Additionally, any work on slopes >15% will include an engineered grading and drainage plan per CCZO 07-18-05. The majority of the site will remain natural impervious surface. All runoff from the Project will infiltrate on-site; therefore, the Project will not impact stormwater drainage systems.

3.5.4 Utility Systems

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. All utilities will comply with all local, state, and federal regulations. See Site Plan Map (see Exhibit D) for details regarding the location of proposed utility easements.

3.6 Legal Access

The Applicant has legal access to the subject properties in the Canyon County Permit Boundary for the development or will have legal access at the time of development, as shown in the Master Application Form with Signatures (see Exhibit B).

3.7 Potential Impacts to Existing or Future Traffic Patterns

The proposed primary access to the Project is anticipated to be located off Southside Boulevard for the substation and operations and management portion of the site. The primary access to the largest and central portion of the facility will be from Rose Lane. The primary access to the easternmost portion of the Project will be from Robinson Road (see Exhibit D). The site design, as shown in the Site Plan, will provide sufficient internal circulation for all development activities. The Applicant has coordinated with the Nampa Highway District and has updated the site plan for additional setbacks from the county line between Canyon and Ada County (100 feet on each side) and Rose Lane (40 feet each side). The Project's design will adequately address road widths and turnarounds for delivery vehicles and fire trucks. Emergency access to the Project area will be identified on the final design and with building plans, and all required approvals and improvements will be completed before construction begins.

There will be a slight temporary increase in traffic pattern impacts during Project construction. There will be no temporary or permanent undue interference with existing or future traffic patterns from O&M due to the limited number of permanent employees, expected to be four at most. There will be incidental delivery trucks during O&M, but it is expected there would be less than one delivery on average per day.

3.8 Potential Impacts to Essential Services

The Project is not anticipated to adversely impact essential services. The proposed use is a low intensity use compared to other allowed uses and conditionally permitted uses in the Agricultural zoning district, such as a dairy facility, feedlot, swine farm, ethanol plant, fertilizer processing facility, or sanitary landfill. There are adequate essential services to accommodate the use. The Project's use of essential services, including police and fire protection and emergency medical services, is expected to be minimal. There will be no impact on local school systems. It is not anticipated that essential services will be negatively impacted by the proposed use or require additional public funding in order to meet the needs created by the proposed use.

3.8.1 Schools

The Project is not anticipated to have adverse impacts on schools but will contribute to the county tax base, materially benefiting local school funding.

3.8.2 Irrigation Facilities

The Project is not anticipated to have adverse impacts on irrigation facilities. The agricultural components of the Project will rely on existing irrigation facilities and water rights.

3.8.3 Emergency Services

The Project is not anticipated to have adverse impacts on emergency services. Much of the powergeneration system operates at low voltage and power levels. Substation equipment will be contained in a secure fenced area. 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, as well as 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. Access to and within the Project area will be designed to allow appropriate access for fire and emergency vehicles. Appropriate signage will be used to assist fire fighters and emergency response personnel.

3.8.3.1 LAW ENFORCEMENT

The responsibility for law enforcement in the Project vicinity is under the jurisdiction of the Canyon County Sheriff. The Applicant does not anticipate adverse impacts to the operations of the sheriff's office or its ability to provide adequate protection services to the surrounding community including because of the limited number of operational employees.

3.8.3.2 FIRE PROTECTION

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 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 and will incorporate smoke and fire detection and suppression systems. The Project is within the jurisdiction of the Melba Rural Fire Protection District, which was contacted and coordinated with in advance of this application submittal. The Applicant will continue to coordinate with state and local fire officials to develop fire prevention, notification, and response procedures.

4 USE STANDARDS: WIND FARM

After consulting with the Applicant, the DSD Director determined that the proposed use in the Canyon County Permit Boundary is considered a Similar Use to a Wind Farm, a permitted conditional use in land use zone A. Additional standards for a wind farm are listed in CZZO 7-14-33, are discussed in this section, and shown on the Site Plan (see Exhibit D).

4.1 Lot Size

The Canyon County Permit Boundary consists of four parcels totaling 1,028 acres (see Exhibit F for the list of parcels).

4.2 Lot Configuration

The configuration of the Canyon County Permit Boundary parcels and Project components is shown in the Site Plan (see Exhibit D).
4.3 **Proximity to Neighboring Structures**

The BESS system is 0.28 mile from the nearest residence, and the substation is 0.1 mile from the nearest residence.

4.4 Topography

The Canyon County Permit Boundary is located on the Snake River Plain, a broad, flat depression that covers a large portion of southern Idaho. Topography at the Project area is varied, but most of the site has slopes of less than 5 percent and is well suited to PV solar development. Figure 7 shows topography in the Canyon County Permit Boundary with contours. Contours are also provided on the Site Plan Map (see Exhibit D). Development in the Project area will avoid steep slopes areas (slopes greater than 15 percent).

4.5 Viewsheds

A visual resources simulation of the Project area was conducted to assess impacts within viewsheds, adjacent properties, and public viewing areas. The visual results are provided in Exhibit K. Ultimately, due to terrain and topography, which shield some areas of the Project, substantial setbacks from roads, low height of solar panels, spacing/limited density of solar panels, and vegetated ground cover, the Project will not create a visual impact that significantly distracts from the rural feel of the surroundings.



Figure 7. Topography within the Canyon County Permit Boundary.

5 LAND USE WORKSHEET

A completed Land Use Worksheet is attached to this CUP application (see Exhibit C). Section 3 of this CUP application provides additional information and details on the contents of the worksheet.

6 PRE-HEARING REQUIREMENTS

6.1 Neighborhood Meeting

Per the requirements of CCZO 7-1-15, 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 600 feet of the exterior boundary of the Canyon County Permit Boundary. Exhibit H provides documentation of the neighborhood meeting and Canyon County Neighborhood Meeting Sign-up Sheet.

6.2 Agency Consultations and Communications

The Applicant consulted with required agencies as part of this CUP application in accordance with local, state, and federal laws and regulations. Documentation of communications are within Exhibit L. 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, Canyon County Emergency Management and Community Resilience, Idaho Bureau of Homeland Security Public Safety Communications section, and the Melba Rural Fire Protection District.

The Canyon County Permit Boundary is not located within an Area of City Impact.

7 REFERENCES

- Canyon County. 2022. *Comprehensive Plan 2030*. Available at: https://www.canyoncounty.id.gov/elected-officials/commissioners/development-services/planning-zoning/. Accessed January 19, 2024.
- Federal Emergency Management Agency. 2021. U.S. Flood Hazard Areas. Available at: https://hazardsfema.maps.arcgis.com/apps/webappviewer/index.html?id=8b0adb51996444d4879338b5529aa9cd. Accessed November 30, 2023.
- Idaho Fish and Game Department (IDFG). 2019. Idaho Sage Grouse Task Force Management Zones. Available at: https://gis-idaho.hub.arcgis.com/datasets/IDFGgis::idaho-sage-grouse-task-force-managementzones/about. Accessed November 28, 2023.
- ———. 2020. Idaho Sage Grouse Task Force Conservation Areas. Available at: https://dataidfggis.opendata.arcgis.com/datasets/12c6247226964d3d822a6421c309246e/explore. Accessed November 28, 2023.
- ——. 2022a. Ada County and Canyon County Observations List. Available at: https://idfg.idaho.gov/species/taxa/list/county/ada?order=field_state_scientific_name&sort=desc. Accessed November 28, 2023.
- ———. 2022b. Elk Ranges dataset. Available at: https://www.arcgis.com/home/item.html?id=403f5c8394ef41a382168c97ec51b3ef. Accessed January 19, 2024.
 - ——. 2022c. Mule Deer Ranges dataset. Available at: https://data-idfggis.opendata.arcgis.com/maps/mule-deer-seasonal-ranges/about. Accessed January 19, 2024.
- ------. 2024. Golden Eagle *Aquila chrysaetos*. Available at: https://idfg.idaho.gov/species/taxa/15974. Accessed January 19, 2024.
- Idaho Department of Water Resources (IDWR) and U.S. Geological Survey (USGS). 2022. NHD and WBD Datasets. Available at: https://idwr.idaho.gov/gis/nhd/datasets/. Accessed January 19, 2024.
- Idaho Power. 2023. Western Treasure Valley Electrical Plan 2022-23 Update. Available at: https://docs.idahopower.com/pdfs/AboutUs/RegionalElectricalPlans/wtvep/WTVEP_Report_Final.pdf. Accessed January 19, 2024.
- Idaho State Historic Preservation Office (SHPO). 2021. National Register of Historic Places in Idaho. Available at: https://gis-idaho.hub.arcgis.com/apps/idaho::national-register-of-historic-places-in-idaho/explore. Accessed November 30, 2023.
 - . 2022. Record Search #23070. Data returned November 14, 2022.
- Natural Resources Conservation Service (NRCS). 2022. Soil Survey Geographic Database (SSURGO) Data. Soil Survey Staff, Natural Resources Conservation Service, U.S. Department of Agriculture. Web Soil Survey. Available at: http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm. Accessed June 17, 2023.
- Rodriguez, J. 2021. *Idaho Power Proposes Expanding Clean Energy Options For its Customers*. Idaho Power. https://www.idahopower.com/news/idaho-power-proposes-expanding-clean-energy-options-for-itscustomers/. Accessed January 19, 2024.
- SWCA Environmental Consultants. 2023. Technical Memorandum from Bill Johnson, Senior Project Manager, SWCA to Christopher Powers, Blacks Creek Energy Center, LLC Re: Powers Butte Energy Center Habitat Assessment. SWCA Project No. 76823-002. June 1, 2023.

- U.S. Department of Agriculture. 2023. Agrivoltaics: Pairing Solar Power and Agriculture in the Northwest \ USDA Climate Hubs. Available at: https://www.climatehubs.usda.gov/hubs/northwest/topic/agrivoltaics-pairingsolar-power-and-agriculture-northwest_Accessed November 20, 2023.
- U.S. Fish and Wildlife Service (USFWS). 2022. Information for Planning and Consultation (IPaC). Available at: https://www.fws.gov/program/national-wetlands-inventory/wetlands-mapper. Accessed January 19, 2024.
- U.S. Geological Survey (USGS). 2019. National Land Cover Database. Available at: https://www.usgs.gov/centers/eros/science/national-land-cover-database. Accessed January 19, 2024.
- Yale Environmental Health and Safety. 2024. Decibel Level Comparison Chart. Available at: https://ehs.yale.edu/sites/default/files/files/decibel-level-chart.pdf.

This page intentionally left blank.