6.303 SUBMISSION REQUIREMENTS FOR A FINAL APPLICATION.

Provided in the following pages are Adapture Renewables, Inc. (ARI) and Barr Engineering Co. (Barr) responses to Alamosa County review comments (in red), received on September 23, 2025, to ARI's Haynach Solar Hybrid Project 1041 final application.

Base Area and Local / Regional Impacts

• Code requirement 2.a.i: Please add discussion of how the site determination was made to the narrative.

Response: The project was purchased by ARI from another developer (Samsung). The site was chosen for its proximity to the San Luis Valley Substation and because the land was previously impacted by tilled agriculture. Parts of the site were previously permitted for a solar project, and the landowner was open to selling the land. Desktop and field surveys did not identify any significant constraints to the project's development. The interconnection facility (San Luis Valley Substation) was assessed through previous Public Service Company of Colorado's (PSCo's) study results and internal analysis, which indicated that it has available capacity for new generation to connect to the existing transmission grid. In the future, Xcel plans to expand the transmission grid between the San Luis Valley and the Denver area to meet its clean energy goals. Colorado has statewide mandates for ambitious clean energy targets. The project will help achieve those goals.

There are no special district expansion programs in the area. The interconnection agreement requires the project to be large enough to generate sufficient electricity to justify the cost of interconnection upgrades. Due to the space required for solar panels to operate efficiently, there are no viable designs for smaller projects that do not reduce generation capacity.

• Code requirement 2.a.iii.B: Please add discussion of the relationship of the Project to any special district expansion programs (or confirm that there are none present).

Response: There are no special district expansion programs in the area that we are aware of. Adapture reached out to the Alamosa County Fire Protection District, the Mosca-Hooper Volunteer Fire Department, the Mosca-Hooper Conservation District, and the San Luis Valley Water Conservation District during the last week of October 2025 to confirm that there are no special district expansion programs affected by the Project. No responses had been received by the time of this comment-response final 1041 application submittal.

Need for Project/ Support and Costs

• Code requirement 2.a.iv.A: Please elaborate on the necessity of the size and nature for the facility as proposed.

Project interconnection includes fixed costs, which require a minimum project size to make the project economically feasible. A smaller project would not generate enough annual revenue under existing market conditions to cover the higher initial construction costs. Previous studies conducted at the Point of Interconnection (POI) have demonstrated that the selected project size does not incur major additional costs for necessary electric network upgrades and is therefore considered optimal for effectively absorbing the infrastructure upgrade costs. Other types of electrical generation are not feasible in this location due to constraints on resource supply (i.e., natural gas pipelines) or site conditions (i.e., limited available wind resource). Moreover, the proposed project size makes a meaningful contribution to advancing PSCo's Clean Energy Goals by maximizing the renewable energy generation potential at this site while maintaining economic feasibility.

• Code requirement 2.a.v.A: Please elaborate on the type of water quality control that is anticipated to be implemented by the Stormwater Management Plan (SWMP).

Response: While the SWMP has not yet been drafted, ARI anticipates implementing some combination of the following Best Management Practices (BMPs) for soil erosion and water quality control during construction:

- Structural BMPs
    - Silt fences and fiber rolls: Trap sediment and slow runoff on slopes and around disturbed areas.
    - Check dams: Small barriers in drainage channels to slow water flow and capture sediment.
    - Sediment basins and traps: Collect runoff and allow sediment to settle before discharge.
- Site Management Practices
    - Construction phasing: Limits the amount of exposed soil at any one time.
    - Stabilized construction entrances: Prevents sediment from being tracked off-site.
    - Dust control measures: Includes water spraying and soil binders to reduce wind erosion.
    - Perimeter controls and diversion channels: To direct runoff to areas with BMPs.
- Vegetative Stabilization
    - Seeding and mulching: Establishes ground cover quickly to reduce erosion.
    - Hydroseeding: A slurry of seed, mulch, and fertilizer sprayed over bare soil.
    - Native vegetation preservation and restoration: Promotes long-term stability and ecological benefits.
- Maintenance and Monitoring
    - Regular inspections: To ensure BMPs are functioning as intended.
    - Adaptive management: Modify BMPs based on site conditions and weather events.

These BMPs will be selected based on site-specific factors like soil type and slope and final engineering design.

• Code requirement 2.a.v.A2: The narrative discusses the potential for implementation of pollutant control measures; please add discussion for seasonal variations (or clarify if they are not anticipated).

Response: The project SWMP will incorporate adaptive management as part of the required routine maintenance and monitoring. Inspections after major weather events are a requirement of SWMPs in Colorado. Examples of seasonal variations that would be reflected in the SWMP include the following:

- Fall seeding
- Limit grading and excavations to periods of dry conditions
- Stabilize disturbed soils prior to ground freezing

The Colorado Department of Public Health and Environment (CDPHE) require year-round inspections even when the ground is frozen or snow-covered; however, inspection frequency may be adjusted under these conditions when the site has been properly stabilized for winter and when no construction is occurring.

Socioeconomic Impacts

• Code requirement 2.a.ix.A.2: Please add discussion of neighborhoods to the narrative or if that information is not available, please state so in the application.

Response: Neither the Alamosa Comprehensive Plan (July 2025) nor the Alamosa County Land Use & Development Code expressly defines what neighborhoods are in the context of these planning documents and land management within the county. There are many definitions of what constitutes a neighborhood. In the United States, neighborhoods are often given official or semi-official status through neighborhood associations, neighborhood watches, or block watches. In localities where neighborhoods do not have an official status, questions can arise as to where one neighborhood begins and another ends. Many cities use *districts* and *wards* as official divisions of the city, rather than traditional neighborhood boundaries. ZIP Code boundaries and post office names also sometimes reflect neighborhood identities.

The project site is not located within or near an established neighborhood association. The project would be located on Lane 8 N, approximately 5.5 miles northwest of Mosca, approximately 5.5 miles southwest

of Hooper, and approximately 5 miles southeast of Center. Mosca and Center are likely the closest areas considered neighborhoods. The project is proposed on agricultural land, surrounded by other agricultural land, except for the existing San Luis Valley Substation and the SunPower Hooper Solar facility, which is located directly south of the project site. Within 2 miles of the proposed site, there are approximately 6 residences, about evenly split between ZIP codes 81146 and 81136.

There are no formally recognized neighborhoods, as defined above, within 2 miles of the proposed Project site. The area surrounding the project site can be described as a dispersed, rural, agricultural neighborhood with no covenants or legal boundaries.

• Code requirement 2.a.ix.D.1: Please add discussion or clarification of dormitories, mobile homes, and locations from the Economic Impact Assessment Section 6.2 "Housing Unit Inventory" if available.

Response: The following table provides a breakdown of the housing unit inventory by type.

Type of housing unit	Share
SFR detatched	63.9%
SFR attached	1.9%
Duplex	5.0%
Multifamily 3-4 units	4.9%
Multifamily 5 to 9 units	3.0%
Multifamily 10 to 19 units	8.5%
Multifamily 20 to 49 units	1.1%
Multifamily 50 or more units	1.0%
Mobile home	10.6%
Boat, RV, vat, etc.	0.1%
Total	100.0%

Historical and Archaeological Resources

• Code requirement 2.a.ix.F.1: Please attach the Class III Cultural Assessment and/or the submission letter to SHPO for reference.

Response: The Class III Cultural Assessment submission letter to the SHPO, dated September 24, 2025, is provided as Attachment 1.

• Code requirement 2.a.ix.F.2: Please elaborate on how the historical/ archaeological resources relate to the community.

Response: Barr conducted a literature review and an intensive pedestrian cultural resource inventory (e.g., Class III) of approximately 1,109 acres of private land in Alamosa County. Based on the literature review and the consistent historical agricultural industry, the potential for precontact sites in the area was expected to be low, and the density of historical sites was anticipated to be moderate, with resources likely consisting of historic artifact scatters, irrigation features, transmission lines, and roads. The inventory resulted in the documentation of six sites and five isolated artifacts. The sites are either segments of historical linear resources (e.g., two roads and one transmission line) or scatters of historical artifacts (e.g., dumps). Of the five isolates, three are precontact artifacts and two are historical artifacts. The roads were originally part of an effort to help get agricultural products to non-local markets, and the transmission line was built to ensure adequate power to rural communities. The historical artifact scatters are simply small roadside dumps that highlight the rural nature of the project area and the relatively large distance required to take household trash to a central disposal area. None of the sites or isolated resources is recommended as eligible for listing in the National Register of Historic Places. The historical and archaeological resources represent the low-density historical occupation and agricultural industry of Alamosa County.

Biotic Conditions

• Code requirement 2.b.ii.A.3: Please add the current indications of stages in ecological succession to the narrative.

Response: Agriculture, rural development, electrical infrastructure, and an existing commercially operational solar generation facility have extensively disturbed the study area. Current signs of ecological succession from these past disturbances include vegetation colonization by early successional native grasses, forbs, and shrubs, such as Indian ricegrass and big sagebrush. In some places, these native pioneer species have begun to replace invasive species (i.e., kochia and Russian thistle) that were early colonizers in disturbed parts of the Project area. Other successional signs include areas of stabilized soils with visible soil crusts and plant rooting. As a result, some previously disturbed areas have started to blend or connect with adjacent undisturbed (or less disturbed) vegetative communities as seed dispersal from these adjacent habitats supports ecological succession.

• Code requirement 2.b.ii.B.1: Please add discussion of the relative importance of the species present to the narrative.

Response: Wildlife in the San Luis Valley, including species documented in the Project Biological Resources Review, plays important ecological and economic roles. Migratory birds contribute to nutrient cycling, seed dispersal, and pest control, and are central to eco-tourism and local bird festivals in the valley. Larger mammals, common to the valley and periodically present on-site, regulate vegetation and prey populations, both of which are considered highly important to ecological balance. Small mammals play an important role, serving as a prey base for predators and spreading seeds and aerating soils through their burrowing activities. Insects, such as bees, butterflies, and beetles, are essential for the pollination of native plants and crops in the valley.

Current Utilization of Air and Socio-Economic Resources

• Code requirement 2.e.ii: Please add a description to the narrative of current utilization of air and socio-economic resources in the impact area.

Response: The project would be located near the center of the San Luis Valley. The field survey conducted for the preliminary application revealed that the study area consists mainly of fallow agriculture (66 percent) and disturbed rangeland (21 percent), which is dominated by Russian thistle, kochia, and big sagebrush. Approximately 11 percent of the area was classified as active agriculture growing common wheat. Cultivated agricultural lands in the San Luis Valley contribute to the regional air quality particulate emissions during periods of high winds. Additionally, farming machinery and trucking produced crops to market contributes to combustion engine exhaust emissions locally and regionally. Assuming an average yield of $500 per acre, the current economic output of the study area would be approximately $63,000.

Alternatives

• Code requirement 2.e.vii.D: Alternative measures to those typically approved by CDPHE are not considered. Please elaborate on the possibilities available for air and pollution control.

Response: The CDPHE generally does not require extensive air pollution control measures for solar facilities as they are considered zero-emission during operation. However, CDPHE may approve or require alternative air and pollution control measures during the construction phase or for associated infrastructure. Alternative measures include:

- Dust suppression techniques: Water spraying, soil stabilizers, and wind fencing to control PM emissions.
- Low-emission construction equipment: Use of Tier 4 diesel engines or electric machinery to reduce NOx and PM emissions.
- Vehicle idling limits: Policies to minimize emissions from trucks and equipment.
- Stabilized construction entrances: Prevents sediment/dust from being tracked onto public roads.

• Code requirement 2.e.vii.E: Please discuss design alternatives to the ones that are being implemented by the Project.

Response: No other design alternatives are currently being considered by ARI.

Visual and Noise Impacts

• Code requirement 2.a.viii.A: Please add a noise contour map and discuss operational impacts from the BESS in the narrative

Response: Provided below is revised text and a noise contour map to supplement Section 3.3.2 BESS and Substation Facilities of the Noise Analysis in Attachment 7 of the Final 1041 Application submittal.

Barr assumed that sound from the substation/BESS facility would emanate from the center of the co-occupied site in the southwest quadrant of the Project property. ARI provided noise test data for the Sungrow Power Titan 2.0 BESS units anticipated for the Project, including sound pressure levels for varying loads and ambient temperatures. The highest tested noise levels, corresponding to maximum power, temperature, and directional emissions, were used in the analysis. Table 7 provides noise for the substation/BESS facility, showing individual equipment noise emissions and combined noise levels from all equipment at the source. As shown, the 152 BESS units generate the most noise and largely eclipse the other noise sources.

Table 1 Operational Equipment Noise Emissions at Source

BESS/Substation Equipment Source	Number of Sources	Single Source Noise Level	Combined Source Noise Level*
BESS Units	152	79.2 dBA @ 3.3 feet	101.0 dBA @ 3.3 feet
Substation 130 MW Transformer	1	87.0 dBA @ 3.3 feet	87.0 dBA @ 3.3 feet
HVAC Equipment	1	69.6 dBA @ 3.3 feet	69.6 dBA @ 3.3 feet
Cumulative BESS/Substation Noise @ Source			101.2 dBA @ 3.3 feet

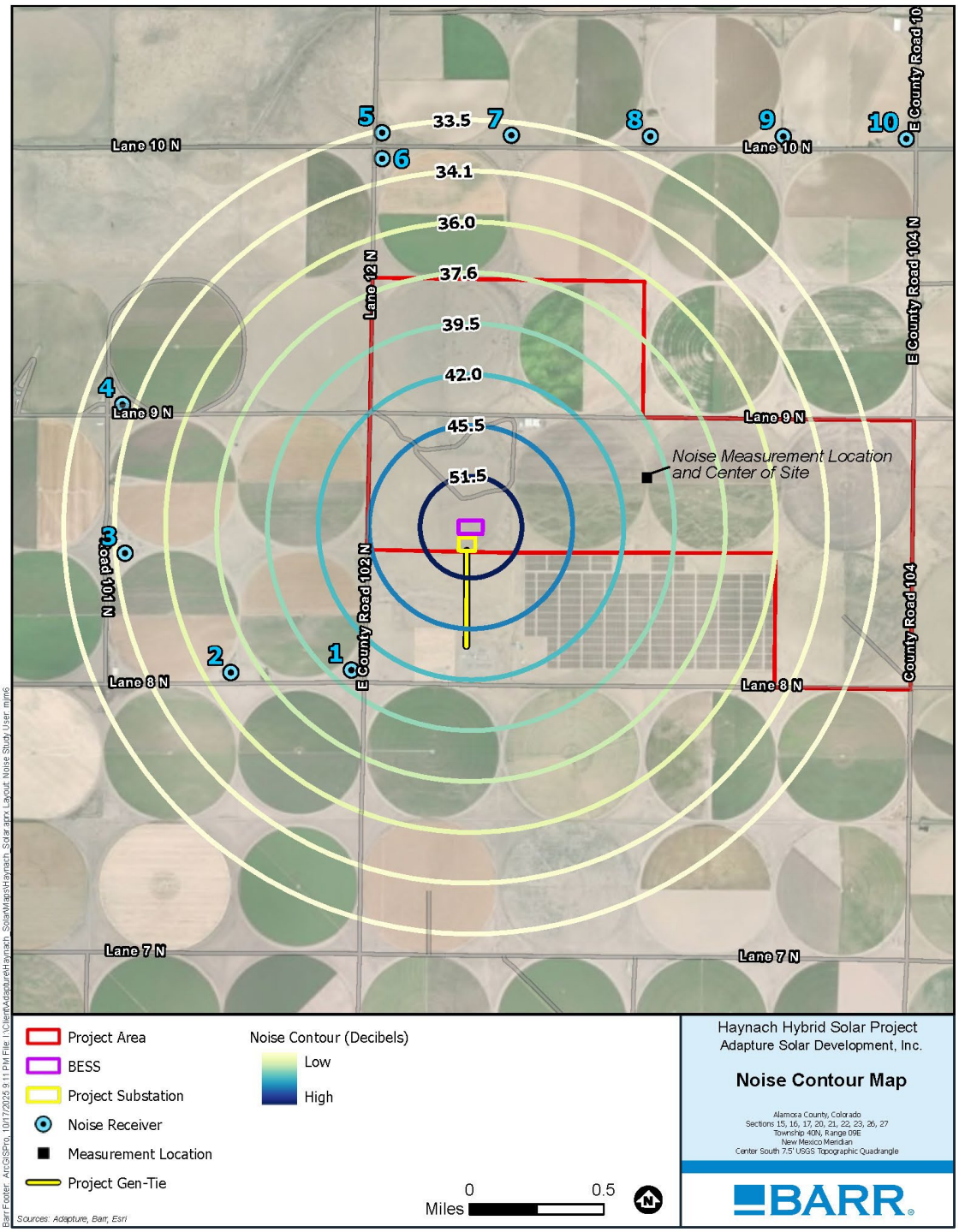
Table 8 provides noise levels at various distances from the source. The property boundary nearest to the center of the substation/BESS facility is approximately 450 feet to the south at the San Luis Valley Substation. Table 8 shows that at 450 feet, at the property line, noise from the substation/BESS facility will be 58.5 dBA-Leq; at 475 feet, 25 feet outside the property line as designated in the Colorado noise statute, it will be 58.0 dBA-Leq. These noise levels would meet the daytime and nighttime standards of the State of Colorado noise ordinance for the industrial zone at the Project site boundary. At the representative residential receivers, noise levels will be below 40 dBA-Leq. These levels are also within the State of Colorado noise ordinance standards and for the residential zone, as measured at the nearest farm residences.

Table 2 Operational Equipment Noise Emissions at Receivers

Receiver	Distance to Source	Noise Level**
Property Line	450 feet	58.5 dBA
Industrial/Agricultural Land Outside Property Line	475 feet	58.0 dBA
Near Residential Receivers	4,000 feet	39.5 dBA
Distant Residential Receivers	8,000 feet	33.5 dBA

The noise contour map shows noise levels in 1,000-foot increments from the substation/BESS facility source. Noise attenuation generally occurs at a rate of 6 dBA per doubling distance over flat terrain; a 6-

dBA decrease is shown from 1,000 feet to 2,000 feet, from 2,000 feet to 4,000 feet, and so on. It is likely that increased noise from the substation/BESS facility will be noticeable near the Project property boundary. At the nearest residential receivers, increased noise will also be noticed or just barely perceptible, particularly during nighttime or other very quiet periods.



Other Minor Inconsistencies

We note the following minor inconsistencies in the narrative:

• The numbering in the narrative sections (which would include all subsections or references to these sections throughout the narrative) is inconsistent with the Alamosa County 1041 Regulations.

Response: The formatting error that resulted in inconsistent narrative section numbering with the Alamosa County 1041 Regulations has been identified and corrected. The corrected numbering Final Application (without Attachments) is included as Attachment 2.

• Section 2(e)(vii) requires alignment between the narrative referenced code and the 1041 Regulation section numbers and headers. Please review and adjust the entries and responses to align with the code as detailed in the Table 2 provided by the county.

Response: The inconsistency was found and corrected.

Additional Response: Although not a 1041 Regulation requirement and not expressly requested by Alamosa County, ARI chose to use this Final Application submittal to summarize their community outreach efforts. ARI community outreach efforts had multiple objectives, including (1) to meet area residents and regulators to discuss issues of concern; (2) to introduce the community to ARI, including the company's values and development experience; and (3) to provide information about the Haynach Hybrid Solar Project and to answer questions. Community outreach efforts included the following:

- ARI participation in Alamosa Rodeo
- Open House meeting held at the community Recreation Center in September 2025.
- Adjacent resident neighbors outreach efforts – included phone, email, and Zoom calls to the area residents.
- Community Fund Contribution – ARI is committed to being a positive contributor to the community and is currently evaluating the best way to support the Alamosa County Community Fund, ensuring the project remains engaged with and supportive of the community.

ATTACHMENT 1

CULTURAL REPORT TRANSMITTAL TO SHPO

BARR

barr.com

TRANSMITTAL LETTER

Office of Archaeology and Historic Preservation
September 24, 2025
Re: A Class III Cultural Resource Inventory of the Haynach Solar Hybrid Project in Alamosa County, Colorado Survey Results (AL.LG.R3)
c: n/a
Barr Project #: 06021002 Job: 112 Task: 001

We are sending you:

☐ Correspondence	☒ Report	☐ Plans
☐ Copy of Letter	☐ Specifications	☒ Other: GIS

No. of Copies	Description
1	Digital Report for survey for Haynach Solar Hybrid Project
1	Geodatabase associated with the above survey
1	Transmittal lettter

These are transmitted as checked below:

☐ For approval	☐ As requested	☐ Other:
☐ For your use	☒ For review and comment:	

Remarks: Hello all, please see the attached Report and geodatabase for a Intensive Class III survey in Alamosa, County. The project is privately funded, though Adapture Solar Development, Inc. and they are applying for an Alamosa County building permit under State House Bill 74-1041. We are requesting your review of the results on behalf of Barr Engineering Co. and Adapture Solar Development, Inc. Please let us know if you have any questions or need any additional documentation.

Renee L. Collins

Sent by: Renee L. Collins **Phone:** 805-791-7693

Outlook

Re: MoveIT Submission COM_AlamosaCounty_Haynach

From oahp@state.co.us <hc_oahp@state.co.us>
Date Thu 9/25/2025 9:18 AM
To Matthew J. Landt <MLandt@barr.com>
Cc Renee L. Collins <RCollins@barr.com>

Received 9/25/2025, thank you!

Office of Archaeology and Historic Preservation
History Colorado
1200 N. Broadway
Denver, CO 80203

History Colorado

Dawn DiPrince is the current Colorado State Historic Preservation Officer. The State Historic Preservation Officer has the delegated authority to represent the State of Colorado in carrying out the responsibilities specified in the National Historic Preservation Act, and in the regulations and administrative requirements established for implementation of the NHPA.

The Office of Archaeology and Historic Preservation is accepting electronic submissions via our secure data submission application MoveIT. Refer to our website for procedures and information about MoveIT.

On Wed, Sep 24, 2025 at 2:47 PM Matthew J. Landt <MLandt@barr.com> wrote:

> Hello all,
>
> We just submitted a project for your review in the Agency Out folder - see attached transmittal letter for additional details.
>
> The system crashed in the middle of the upload, though the project was uploaded when it came back online. Because of the glitchy upload, please let us know if you have any questions.
>
> Thanks for your support,
>
> Matt
>
> **Matthew J. Landt**
>
> Senior Cultural Resources Specialist
> MLandt@barr.com | 970.488.3763
> Durango, CO | barr.com

ATTACHMENT 2

REFORMATTED 1041 APPLICATION

Haynach Solar Hybrid Project

Final 1041 Application

Prepared for
Alamosa County
Land Use & Building Department

Prepared on behalf of Adapture Solar Development, Inc. by
Barr Engineering Co.

October 2025 (revised format)

776 East Second Avenue
Durango, CO 81301
970.382.7256

Haynach Solar Hybrid Project
Final 1041 Application

August 2025

Contents

Maps

Tables

Attachments

Abbreviations

Adapture or Applicant	Adapture Solar Development, Inc.
ADT	Average Daily Traffic
AF	acre feet
AFY	acre-feet per year
Barr	Barr Engineering Co.
BESS	battery energy storage system
BOCC	Board of County Commissioners
CDA	Colorado Department of Agriculture
CDOT	Colorado Department of Transportation
CDPHE	Colorado Department of Public Health and Environment
CGP	Construction General Permit
cm	centimeter
CMP	County Master Plan
CODEX	Colorado's Conservation Data Explorer
CPCN	Certificate of Public Convenience and Necessity
CPW	Colorado Parks and Wildlife
CRP	Conservation Resource Program
CRSP	Colorado River Storage Project
CWA	Clean Water Act
dBA-Leq	A-weighted equivalent continuous sound level
DOLA	Colorado Department of Local Affairs
EMS	emergency medical services
EOP	Emergency Operations Plan
EPA	U.S. Environmental Protection Agency
ES	Executive Summary
EVT	Expected Vegetation Type
gen-tie	generation-tie
Ifs	isolated finds
IMPLAN	Impacts analysis for planning
IPaC	Information for Planning and Consultation
kV	kilovolt
LOS	level of service
LUDC	Land Use and Development Code
mph	miles per hour
MRIO	multi-region input-output
MWh	megawatt hours
NLCD	National Land Cover Dataset
NPS	nonpoint source
NRHP	National Register of Historic Places
OTIS	Online Transportation Information System
Project	Haynach Solar Hybrid Project
PSCo	Public Service Company of Colorado

PUC	Public Utilities Commission
SAM	Species Activity Mapping
SHE	Short Elliot Hendrickson Inc.
SHPO	Colorado State Historic Preservation Office
SWMP	Stormwater Management Plan
Tri-State	Tri-State Generation and Transmission Association
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
WQCD	Water Quality Control Commission and Water Quality Control Division

1 Executive Summary

This Final 1041 Application is submitted to support the Haynach Solar Hybrid Project (Project) proposed by Adapture Solar Development, Inc. (Adapture or Applicant). It has been prepared in accordance with the content requirements outlined in the Alamosa County 1041 Regulations, as amended. Specifically, this application follows the content and procedures outlined in Chapter 6, Regulations for Site Selection and Construction of Major Facilities of a Public Utility. Barr Engineering Co. (Barr) prepared this final application package and completed most of the special studies and assessments included as attachments to this application. Studies completed by other entities are also identified and included within this submittal.

Provided in this Executive Summary (ES) is a description of the Project that has been previously submitted to the county as part of the Preliminary Application package submitted in April 2024 and as part of a Final Application variance request reviewed and approved by the county Land Use & Building Department and the Board of County Commissioners (BOCC) on April 9, 2025. The granted waiver request is included in this application as Attachment 1. Attachment 2 includes a comment response matrix addressing questions and deficiencies identified in the Project Preliminary Application by Land Use & Building Department staff/consultants.

Lastly, this ES includes a detailed summary regarding Project compliance with permit application criteria outlined in Section 6.304 of the county's 1041 regulations. Compliance with these criteria is a prerequisite for permit approval. This application package demonstrates compliance with all evaluation criteria and concludes that the proposed Project site minimizes adverse impacts on natural and social resources, including those on county services, and would have substantial economic benefits to the county from construction and operational tax revenues over the 40-year life of the Project.

1.1 Project Description

The proposed Project is a 110-megawatt (MW) solar photovoltaic facility and a 110 MW, 4-hour battery energy storage system (BESS) with a substation, to be installed on an approximately 1,109-acre site. The proposed facility would be located north of the existing San Luis Valley Substation, jointly owned and operated by Tri-State Generation and Transmission Association (Tri-State) and Public Service Company of Colorado (PSCo). This substation is located on the northwest corner of Eightmile Lane and East County Road 102 N. An existing solar facility, Hooper Solar, is immediately adjacent and south of the proposed project. This location is approximately 5.5 miles southwest of the community of Hooper, Colorado. The Project would produce approximately 330,039 megawatt hours (MWh) annually of emissions-free electricity and store and provide approximately 440 MWh of energy storage capabilities to the grid. The facility would require construction of an on-site collector substation and a new 230 kilovolt (kV) generation-tie (gen-tie) line to connect with the existing Tri-State and PSCo San Luis Valley Substation. The project's construction schedule will be determined by final development approvals; however, we anticipate construction starting between 2026 and 2030. The Project is expected to remain operational for 40 years. A detailed description of the Project is provided in Attachment 3.

1.2 Preliminary Application Deficiencies Addressed

Provided as Attachment 2 of this application is a comment response matrix addressing questions and deficiencies identified in the Project Preliminary Application by Land Use & Building Department staff/consultants. The Preliminary Application was submitted to the county by Adapture in April 2024. A

copy of the county's Preliminary Application Technical Review Memorandum is also included in Attachment 2.

1.3 Action on Permit Application

This section includes a detailed summary of Project compliance with permit application criteria outlined in Section 6.304 of the county's 1041 regulations. Compliance with these criteria is a prerequisite for permit approval.

(1) The Permit Authority shall approve an application for a permit for site selection and construction of a major facility of a public utility (with reasonable conditions, if any, in the discretion of the Permit Authority) only if the proposed site selection and construction complies with all of the following criteria:

(1)(a) The health, welfare, and safety of the citizens of this County will be protected and served;

The Project includes a Hazardous Materials, Waste Management, and Emergency Response Plan (Attachment 12) and a Transportation Impact Study and Level 2 Auxiliary Turn Lane Assessment (Attachment 5) to address community health and safety issues.

The Hazardous Materials, Waste Management, and Emergency Response Plan has been developed to be consistent with the Alamosa County Emergency Operations Plan (EOP) and the San Luis Valley Hazard Mitigation Plan 2023-2028 and to ensure compliance with federal, state, and local regulatory requirements on generating and managing hazardous materials and solid waste.

After receiving the Transportation Impact Study, the Colorado Department of Transportation (CDOT) will conduct a crash data analysis to consider, if necessary, additional recommended safety mitigation measures.

(1)(b) The natural and socio-economic environment of this County will be protected and enhanced;

The Project site selected and the proposed construction avoid impacting sensitive natural resources such as wildlife, wetlands, and/or cultural resources (refer to Attachment 8 and Attachment 9 and Section (2)(a)(ix)F1. - 2. Description of historic and archaeological resources in the Final 1041 Application.)

There will be significant socio-economic benefits to Alamosa County, to adjacent counties, and the state and federal government from temporary and permanent job creation, sales of goods and services, and construction and operational tax revenues (refer to the Economic Impact Analysis in Attachment 4)

(1)(c) All reasonable alternatives to the proposed action, including use of existing rights-of-way and joint use of rights-of-way wherever uses are compatible, have been adequately assessed, and the proposed action represents the best interests of the people of this County and represents the best utilization of resources in the impact area;

Section 2(e)(vii)A addresses alternative sites and technologies, and joint use of rights-of-way. The Project design is consistent with other PV energy storage sites in the county and co-locates the proposed gen-tie interconnection facilities on the existing San Luis Valley Substation property. Additionally, no new roads are proposed to access the Project site; instead, the Project would utilize existing county road rights-of-way.

(1)(d) A satisfactory program to mitigate and minimize adverse impacts has been presented;

To mitigate potential impacts to the natural and social environment, and/or to comply with existing laws or ordinances, each Project technical report or resource study (attached to this application) includes recommended mitigation measures to minimize potential adverse impacts.

(1)(e) The nature and location or expansion of the facility complies with all applicable provisions of the master plan of this County, and other applicable regional, metropolitan, state, and national plans;

The Project is in conformance with the Alamosa County Master Plan and state and federal plans (refer to Section (2)(a)(iii)A).

(1)(f) The nature and location or expansion of the facility complements the existing and reasonably foreseeable needs of the service area and of the area immediately affected by the facility;

The Project would be adjacent to the existing Hooper Solar Project facility and the San Luis Valley Substation. In addition to the Project and the Hooper Solar Facility, three other existing solar facilities are located off Eightmile Lane (LN 8 N) within 5 miles east of the proposed site (refer to Map 2-8 Energy Resources). The Project's close proximity to the substation eliminates the need for a lengthy overhead transmission line, which is compatible with the Alamosa County Master Plan.

(1)(g) The nature and location or expansion of the facility does not unduly or unreasonably impact existing community services;

The nature and location of the Project do not unduly or unreasonably impact existing community services. In fact, the Project has substantial tax benefits to Alamosa County and to special districts during construction ($743,000) and operation ($1,988,776 annually) of the Project (refer to the Economic Impact Assessment Section 8.2 and 8.3 in Attachment 4).

(1)(h) The nature and location or expansion of the facility will not create an expansion of the demand for government services beyond the reasonable capacity of the community or region to provide such services, as determined by the Permit Authority;

The Project will not require an unreasonable expansion of community services, although the Project would generate tax benefits over the life of the Project that far exceed those currently generated by the property. Refer to Section 11 of the Project Economic Impact Assessment in Attachment 4 – Economic Impact Assessment.

(1)(i) The facility site or expansion area is not in an area with general meteorological and climatological conditions which would unreasonably interfere with or obstruct normal operations and maintenance;

Resource issue waived by the County (refer to Attachment 1).

(1)(j) The nature and location of the facility or expansion will not adversely affect the water rights of any upstream, downstream, or adjacent communities or other water users;

The Project would not adversely affect the water rights of any other upstream or downstream users (refer to Attachment 10 – Water Rights Summary). Project water use would be sourced from DWR Permit Numbers 29660-F (WDID 2014189) and 10334-F (WDID 2009110) within Parcel Number Parcel No. 500922100171 and Permit Numbers 17513-F (WDID 2009113) and 17514-F-R (WDID 2009114),

respectively, within Parcel No. 5009163000040. These are the water rights currently owned by Mr. Lee Welch, which would be transferred to Adapture upon the final execution of the Project site lease. Any excess water not needed for commercial or industrial use could be transferred or sold by the owner to other water users within the area or placed in the U.S. Department of Agriculture Conservation Resource Program for later use.

(1)(k) Adequate water supplies are available for facility needs;

Project water needs are approximately 200-300 acre-feet (AF) during the 16-month construction period for dust suppression and 10 AF annually during Project operations for O&M building water use and periodic panel washing. The permits described in Section (j) above each have a permitted use of approximately 246-480 AF annually, subject to the Rules Governing the Withdrawal of Groundwater in Water Division No. 3 (The Rio Grande Basin) and Establishing Criteria for the Beginning and End of the Irrigation Season in Water Division No. 3 for All Irrigation Water Rights (Rules) (refer to Attachment 11 – Hydrology Study and associated supporting information).

(1)(l) The nature and location of the facility or expansion will not unduly interfere with any existing easements for or rights-of-way, for other utilities, canals, mineral claims, or roads;

The Project will not unduly interfere with any existing easements or rights-of-way. A Project site (property) warranty deed is available upon request. On the Project site, there are several electric distribution and transmission easements. The Project is designed to avoid these easements. Mineral rights beneath the Project site are owned by the federal government, the State of Colorado, Dan Glaxner, Bonnie and Gerald Ritter, Lee Welch, and Robert and Linda Glaxner. There are no documented occurrences of locatable mineral deposits on or in the immediate area of the Project. Most of the locatable mineral deposits in the region come from the Sangre de Cristo Mountains to the northeast. There are no known coal resources within the immediate region of the Project site, and no history of coal production in Alamosa County. The Bureau of Land Management San Luis Valley Resource Management Plan describes the San Luis Basin as having a low potential for oil and gas development. There are no active oil or gas leases within the Project site.

(1)(m) The applicant is able to obtain needed easements for drainage, disposal, utilities, access, etc.;

At this time, there are no known encumbrances for needed easements. Access to the site would be via a driveway permit from the Alamosa County Road and Bridge Department. Adapture is in negotiation with PSCo regarding an easement across their property to the south for a Project gen-tie interconnection to the San Luis Valley Substation.

(1)(n) Adequate electric, gas, telephone, water, sewage, and other utilities exist or shall be developed to service the site;

No new utilities are needed to support the Project site.

(1)(o) The nature and location for expansion of the facility will not interfere with any significant wildlife habitat or adversely affect any endangered wildlife species, unique natural resource or historic landmark within the impact area;

The Project site, consistent with the solar siting considerations in the draft Comprehensive Plan (July 2025), will not be near or interfere with any Colorado Natural Heritage Program Potential Conservation Areas and Network of Conservation Areas, including National Wildlife Refuges, State Wildlife Areas, and

other areas of high habitat value and management (refer to the Biological Resources Review in Attachment 8).

(1)(p) The nature and location or expansion of the facility, including expected growth and development related to the operation and provision of service, will not significantly deteriorate air quality in the impact area;

Resource issue waived by the county (refer to Attachment 1).

(1)(q) The geological and topographic features of the site are adequate for all construction, clearing, grading, drainage, vegetation, and other needs of the facility construction or expansion;

Resource issue waived by the county (refer to Attachment 1).

(1)(r) The existing water quality of affected state waters will not be degraded below state and federal standards or established baseline levels;

There are no wetlands or waters of the U.S. or of the state of Colorado within the Project site, nor will any be impacted by the Project (refer to Attachment 9).

(1)(s) The benefits of the proposed developments outweigh the losses of any natural resources or reduction of productivity of agricultural lands as a result of the proposed development.

The socio-economic benefits of the Project, in the form of temporary and permanent employment, generation of sales of goods and services, and local, state, and federal tax revenues over the life of the Project, are significantly higher than those currently generated from the property and land use (refer to the Economic Impact Analysis in Attachment 4).

2 Final 1041 Application

This section provides all Project details as required by Chapter 6 of the county 1041 regulations. It has been arranged to mirror the submittal requirements of Chapter 6 and is organized to coincide with each code requirement. Where the county has granted waivers, they are also identified by code citation and included as Attachment 2 of this application.

(2) Final Application

(2)(a) At the time of making final application, all applicants shall submit five (5) copies of the following documents and information:

(2)(a)(i) Delineation of base area (that area likely to be subject to land use changes as a result of the project).

(2)(a)(i)A Map showing base area: describe how the determination was made.

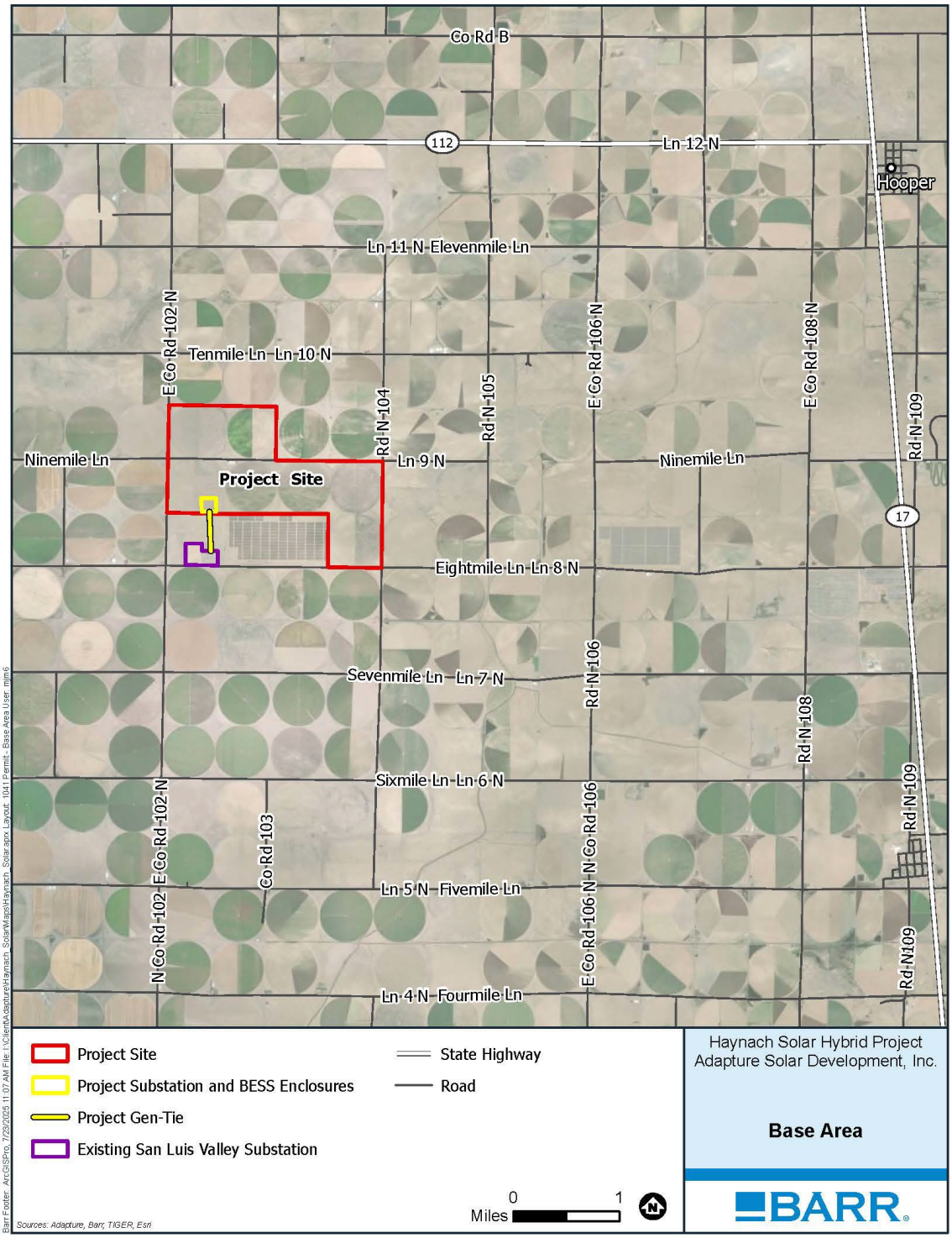
Map 2-1. Project Base Area depicts the Project's base area. It shows all proposed facilities and the boundaries of the Project where land use changes will occur.

(2)(a)(i)B Map showing all special districts (school, fire, water sanitation, etc.) affected by the proposal.

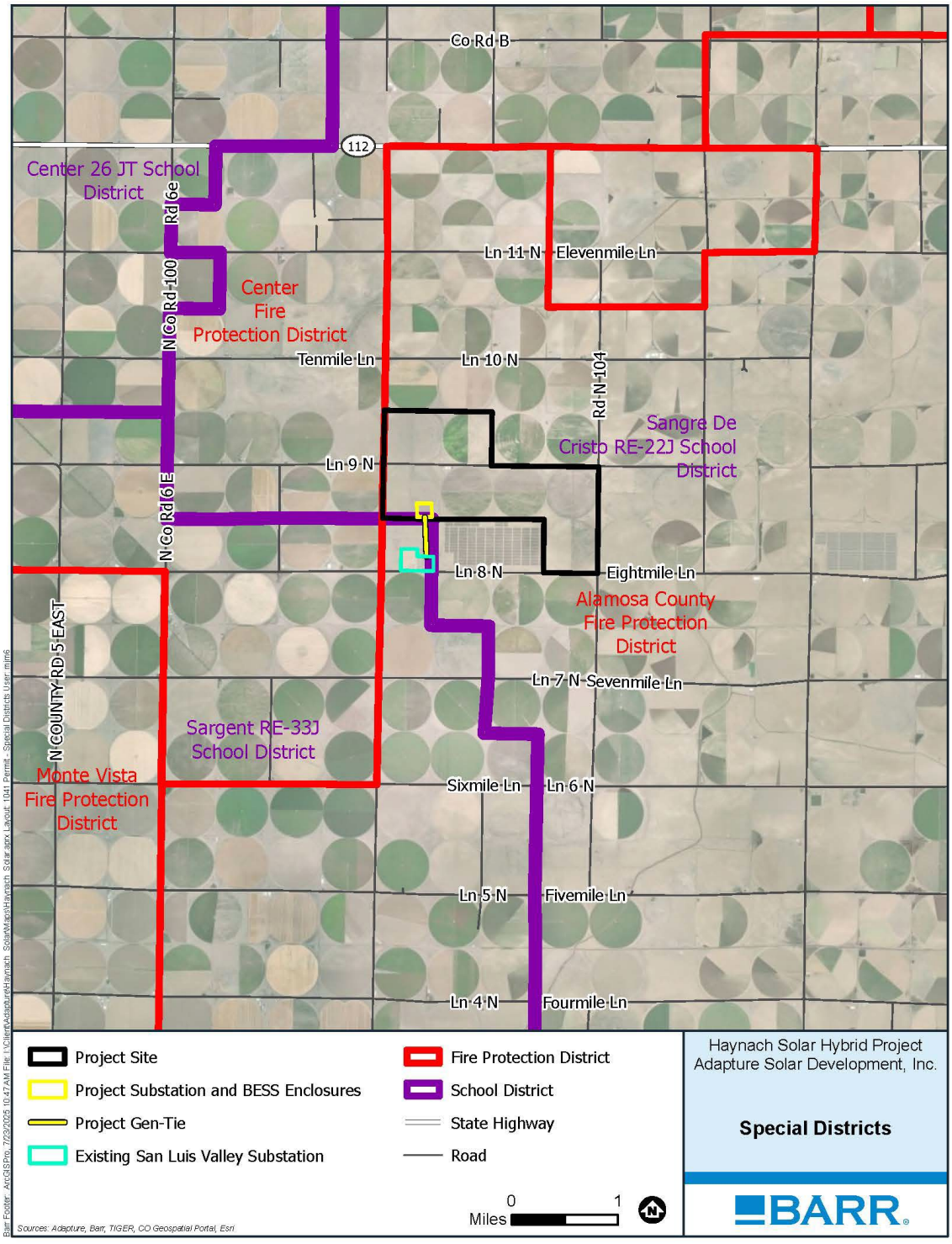
Map 2-2. Alamosa County Affect Special Districts depicts all special districts in Alamosa County affected by the Project. The nature of each district's impacts is defined in other sections of the application.

(2)(a)(ii) Delineation of impact area (that area whose physical and socio-economic environment is likely to be impacted, beneficially and adversely, by the site selection and construction of the proposed facility).

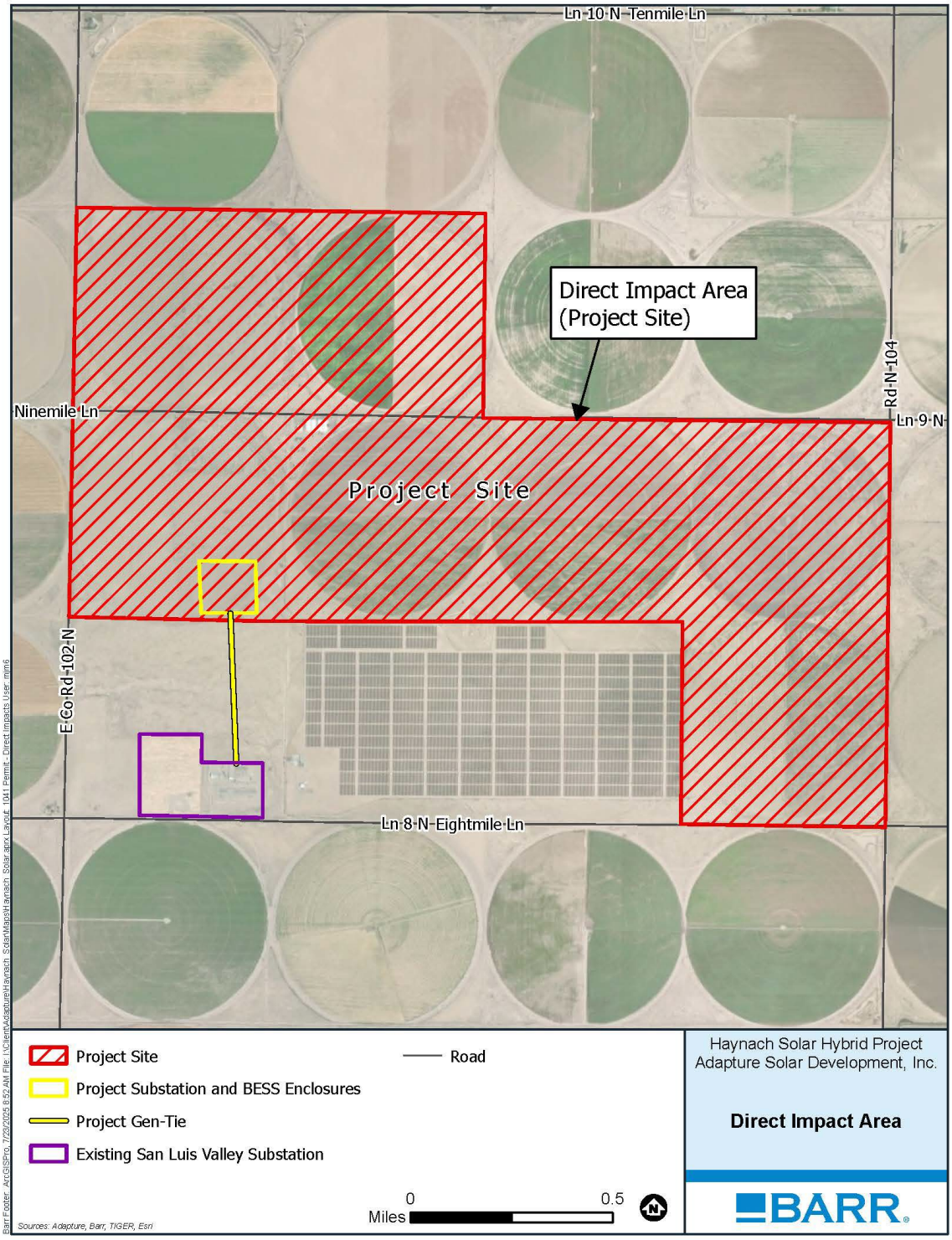
The Project area of impact, as depicted in Map 2-3, includes the areas of direct physical ground disturbance where construction activities will alter the landscape to accommodate the Project facilities. Map 2-4 delineates indirect impact areas where resource issues, such as noise, visual character, and traffic, may be affected by the Project's construction and operation. These impact areas are further discussed in Sections (vii) Description of visual conditions (base area), (viii) Description of noise conditions (base area), and (ix) Description of socio-economic environment (impact area), subsection (E) Existing Transportation Network of this application. Lastly, the Project socio-economic impact area, including Alamosa County, adjoining counties, the state of Colorado, and the federal government, is described in Sections (vi) Description of employment and economic opportunities, and (ix) Description of socio-economic environment (impact area). These are areas where goods and services, employment, and taxes generated by the Project will benefit these economies.



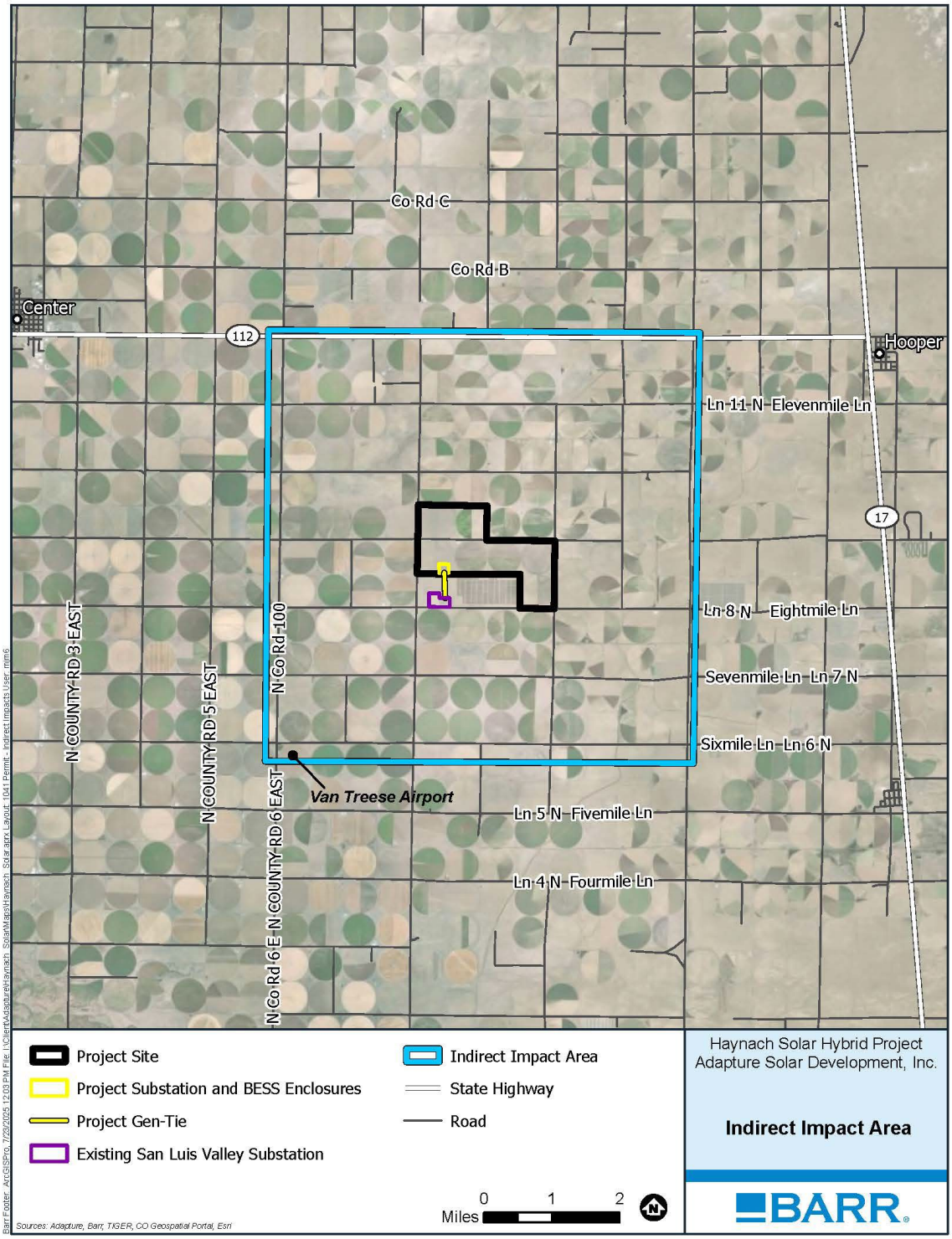
Map 2-1. Project Base Area



Map 2-2. Alamosa County Affect Special Districts



Map 2-3. Project Direct Impact Area



Map 2-4. Project Indirect Impact Area

(2)(a)(iii) Objectives of the proposed site selection and facility.

Solar, battery hybrid systems can produce emissions-free electricity while helping utility operators integrate intermittent renewable resources more effectively into the electrical grid. That is, the construction and operation of the hybrid facility will allow the operator to charge the BESS during periods of solar energy generation (during the day) and shift output to the regional transmission system to peak (during the evening) hours when it is most valuable in deferring use of other non-renewable resources elsewhere.

The objectives of the Project are to:

- Improve energy reliability for Alamosa County.
- Increase the reliability and flexibility of the electrical grid by storing energy.
- Locate a solar hybrid project near an existing electrical substation to minimize the length of transmission interconnection.
- Help to integrate renewable generation on the electric grid and avoid unreliability from renewable generation that has plagued other parts of the country, by installing battery energy storage capacity that can be called upon in periods of peak demand or varying sunlight conditions.

(2)(a)(iii)A Describe the relationship of project to local land use policies and comprehensive plans and to policies and plans adopted or under preparation by federal, state and other affected local governmental agencies.

Land use and development planning in Alamosa County is guided by the County Master Plan (CMP) and the Land Use and Development Code (LUDC) adopted in 2009. The proposed Project is consistent with the LUDC definition of a “solar panel field” as defined in the LUDC. As described in Section 2.4.3.B Utility, major: Alamosa County considers applications for Utility Scale Solar and Battery Storage developments under the county’s 1041 Regulations. According to the CMP, “Alamosa County is already pursuing and would very much like to augment its focus as a national center for the exploration and production of alternative energies like geothermal, solar, wind, biodiesel, and other renewable and alternative energy industries.” The Project is consistent with the land use and policy goals of the Town of Hooper and the Community of Mosca. Specifically, Goal 6.7, Policy 6.7.4, aims to attract commercial development and to build upon the alternative energy industry already in the San Luis Valley.

While the CMP encourages the expansion of renewable energy development in the county, it also acknowledges that solar energy development can be viewed as a natural resource extractive industry and may have environmental impacts. Consistent with multiple CMP goals, Adapture has proposed a Project site that minimizes impacts to scenic resources (Goal 8.4), natural hazards (Goal 8.5), and natural resources, including wildlife (Goals 8.6, 8.8, and 8.9). Other Project resource protection measures, such as water and air quality pollution prevention (Goals 8.10, 8.11, and 8.12), are described in other sections of this application.

At the state level, the Colorado legislature recently passed a series of bills that build upon the state’s commitment to transition to a low-carbon economy. This package of new laws, among other objectives, supports the increased development of renewable energy with the goal of transitioning to 100% clean electricity generation by 2040. The policies have empowered the Public Utilities Commission (PUC) to facilitate a rapid transition to renewable energy across the state, which includes working with the state’s largest utility, Xcel Energy (Xcel), to invest in renewable energy and meet a goal of reducing greenhouse

gas pollution by 80% by 2030. Xcel, of which PSCo is a subsidiary, expects to add 10,000 MW of renewables to its portfolio in the next decade. The proposed Adapture Project is consistent with these state energy policy goals.

As there is no Project federal regulatory nexus, land use decisions on private property are made at the local level by Alamosa County.

(2)(a)(iii)B Describe the relationship of the project to other existing and planned utility facilities of similar nature, other communication or energy generation and transmission facilities, local government capital improvement programs, and special district expansion programs.

The proposed Project is located partially within the original footprint of the Hooper Solar Site, which was permitted under Resolution 2012-G-5—an HB1041 permit granted by Alamosa County in 2012 for a 150 MW solar project issued to San Luis Valley Solar Farm LLC (Meridian subsidiary) and transferred to Solar Star Colorado III, LLC (SunPower subsidiary) and amended by Resolution 2014-G-7.

In 2012, the entire area, including both the existing Hooper Solar Site and the land now associated with the proposed Project, was planned as a single-phase development. In 2014, the then-owner of the Hooper Solar Site requested and received approval to split the project into multiple phases. Phase 1 has since been constructed, while Phases 2 and 3 were intended to occupy the land now proposed for the Adapture Project.

Phases 2 and 3 received multiple permit extensions over the years; however, in 2024, the permit authority concluded that the project no longer met the conditions of Permit Resolution 2014-G-7 and did not grant further extensions. As a result, any previous approvals from Alamosa County for development on the Haynach Solar Hybrid Project site have expired.

(2)(a)(iv) Description of need for project

(2)(a)(iv)A Describe briefly why the public convenience and necessity require the facility of the size and nature proposed be constructed on the site proposed.

A Certificate of Public Convenience and Necessity (CPCN) issued by the Colorado Public Utilities Commission (PUC) is required for electric utilities constructing and operating facilities in Colorado. Issuing CPCNs increases public confidence in the companies authorized to provide electric services in the state. It promotes financially healthy companies that will stay in business and offer a high level of service to their customers. The PUC provides oversight over entry and exit from the Colorado market, with the goal of protecting customers and assuring that companies provide service to customers on a non-discriminatory basis. The CPCN serves the public interest by balancing the needs of customers and utility service providers in terms of rates, service, infrastructure, and reliability. The proposed Project site is immediately adjacent to the existing San Luis Valley Substation and to the Hooper Solar Project. This proximity enables lower-cost solar power generation, system reliability, and public safety. Additionally, the location as sited minimizes environmental impacts; another factor that the PUC considers when issuing a CPCN.

(2)(a)(iv)B Sources of demographic and economic data and methods of analysis.

To assess Alamosa County's socioeconomic characteristics and local public services, various documents and publications from local, state, federal, academic, nonprofit, and other private organizations were reviewed. A list of primary organizations is provided below, along with specific citations throughout the report.

- Colorado State Demography Office
- Colorado Department of Local Affairs (DOLA)
- “Impacts analysis for planning” (IMPLAN) (refer to: https://implan.com/history/)
- Alamosa County
- U.S. Census Bureau

Economic impacts were modeled using the IMPLAN system, which is described in Section 7, along with the specific methodology adopted for this analysis. Fiscal impacts are estimated using the state-assessed property tax template provided by the Colorado DOLA.

Unless otherwise noted in the Project Economic Impact Assessment (Attachment 4), the information presented throughout the assessment and in this application is based on 2023 Census data (the most current data available), including dollar figures in 2023 dollars. Projected project costs, budgets, and impact estimates are presented in 2025 dollars.

(2)(a)(iv)C Market function (i.e. what user needs and patterns will project fulfill).

The Project’s market function would fulfill user needs by increasing the supply of electric energy, supporting and creating skilled jobs, and generating public revenues (refer to Section 12 of the Project Economic Impact Assessment in Attachment 4). Regional energy demand is driven primarily by residential and agricultural users, particularly during the peak summer months. It supports the shift toward renewable energy mandated by Colorado’s clean energy goals and aligns with the growing daytime load from electrification and irrigation systems.

Aggressive emissions-reduction requirements established by the 2019 legislation require Colorado to reduce CO2 equivalent emissions by 80% in the power sector and 50% across all sectors compared to 2005 levels by 2030. Related to the emissions reduction in the state is the shift in energy generation. According to the Common Sense Institute of Colorado, as of 2023, coal accounted for 32.9% of Colorado's power generation, while natural gas accounted for 30%, wind accounted for 28%, and solar for 6.3%. This large segment of coal-fired power generation is important to understand in the context of Colorado policy focused on CO_2-emission reduction, which plans to retire all coal generation between 2025 and 2031; this means that one-third of Colorado’s power generation is planned to be removed in the next few years. The Project will contribute to replacing this reduction in coal-generated power and to reducing CO_2 emissions in the power sector.

(2)(a)(v) Description of support facilities needed

(2)(a)(v)A Type of water quality control.

(2)(a)(v)A1 Describe proposed sewage treatment facilities and nonpoint source controls.

The Project will require a septic tank and leach/drain field for on-site sewage treatment. The Alamosa County code dictates the size and design specifications. The Water Quality Control Commission and Water Quality Control Division (WQCD) of the Colorado Department of Public Health and Environment (CDPHE), under the authority of federal and Colorado statutes, administer state programs implementing the Clean Water Act (CWA). Section 319 of the CWA was created to establish a national program to control nonpoint source (NPS) water pollution and to develop NPS management programs that maintain and improve water quality in the state. The Nonpoint Source Program of the WQCD has delegated

authority to implement a U.S. Environmental Protection Agency (EPA) approved state NPS management program under the CWA. Because the Project will disturb more than 1 acre or more of land during construction, the Project will prepare a Stormwater Management Plan (SWMP) that complies with the Construction General Permit (CGP #COR400000). This permit is required 14 calendar days prior to commencing construction activities. No Project site discharge permit (COR900000) is required during Project operations as there are no receiving surface waters in proximity to the Project site.

(2)(a)(v)A2 Describe pollutant loads (point and nonpoint sources) expected directly from development. Specify seasonal variations.

The SWMP is prepared to commit to and implement pollutant control measures to meet CGP effluent limitations, including the following:

- Control measures to prevent the discharge of sediment in stormwater.
- Control measures to minimize dust, consistent with EPA's 2022 CGP for dry climates.
- A requirement to minimize erosion at stormwater discharge locations. Control measures to meet this requirement may include the use of erosion controls and/or velocity dissipation devices (e.g., check dams, sediment traps) at the outfall to slow down stormwater flow.
- A specific requirement that spills and leaks must be contained and mitigated immediately upon identification.
- Added specific requirement that washout for paint, form release oils, curing compounds, or other similar construction materials must go to a leak-proof container or a lined pit.
- Minimize exposure to fertilizers, pesticides, and herbicides. Specifically, the permit requires that the permittee store, use, and dispose of the fertilizer, pesticide, or herbicide in accordance with the manufacturer's directions to minimize the potential discharge of excess or improperly applied product.

(2)(a)(v)B Public services and facilities.

This section describes public services that would be impacted by the Project construction and operations. Given the Project's location in unincorporated Alamosa County, law enforcement would fall under the sheriff's office, fire protection under the Alamosa County Fire Protection District, and emergency medical services (EMS) under the County Ambulance District. The location is also within the Sangre de Cristo School District and the Rio Grande Water Conservation District.

(2)(a)(v)B1 Estimate police and fire protection requirements.

Refer to Sections 11.3 and 11.4 of the Project Economic Impact Assessment in Attachment 4.

(2)(a)(v)B2 Estimate public road maintenance requirements.

According to CDOT Access Code requirements for auxiliary lanes on R-A and R-B roadways, an acceleration lane for the eastbound to southbound direction at the intersection of CO 17 / Lane 8 N is warranted. According to Section 4 of the Access Code, the acceleration lane for a 65 mph R-A roadway shall be 1,380 feet with a 25:1 transition taper. The taper is included within the acceleration length. A temporary acceleration lane may be constructed if required by CDOT. Additional details regarding road

classifications and required upgrades are included in the Transportation Impact Study and Level 2 Auxiliary Turn Lane Assessment provided in Attachment 5.

Following review of the Alamosa County Land Use & Development Code, no reference to required Project impact fees, which would cover public road maintenance near the Project, was found. Instead, tax revenues derived from oil and gas production, commercial, industrial, agricultural, and other commercial activities in the County, cover the cost of public road maintenance. The county currently maintains all public roads bordering the Project site.

(2)(a)(v)B3 Estimate educational and health service requirements.

Refer to Sections 11.5, 11.6, and 11-7 of the Project Economic Impact Assessment in Attachment 4.

(2)(a)(v)B4 Estimate facilities and services required to provide adequate water supply and sewage treatment.

Constructing the Project would require an estimated 200 to 300 acre-feet of water over the entire construction period, or 133 to 200 acre-feet per year (AFY). This water would be used primarily for compaction, dust suppression (including truck wheel washing), and concrete mixing. At this rate, the Project would account for no more than 0.3% of annual county water use. No county sewage treatment facilities would be required to support the Project.

Water demand for panel washing is not expected to exceed 10 AFY. Water is anticipated to be obtained from on-site wells or delivered via truck from an off-site source (or sources) in the project vicinity. If water is trucked to the site, it is anticipated that an available local water source will be selected to minimize the number of truck trips/lengths required for transporting water to/from the site.

Refer to Sections 11.9 and 11.10 of the Project Economic Impact Assessment in Attachment 4 for fiscal water supply service estimates.

(2)(a)(vi) Description of employment and economic opportunities.

IMPLAN assumes construction “supports” or hires existing job holders rather than creating new jobs. However, the ability of a local workforce to support a construction project depends on the size of the workforce and the employment required to construct the project. Further, specific skills or specialized trades may need to be recruited from outside a region, again depending on the nature of the local workforce and project construction requirements.

(2)(a)(vi)A Describe capital investment in facility.

The total estimated capital investment to construct the Project is $331,120,170. Refer to Section 7.1.1 of the Project Economic Impact Assessment in Attachment 4 for a detailed description and breakdown of expenditures.

(2)(a)(vi)B Estimate anticipated revenues to local, state and federal governments, special districts.

Local Revenues

The tax impact of construction would be approximately $743,000 received at the local level (sub-county, special districts, and county combined). Refer to Section 8.2.5 of the Project Economic Impact Assessment in Attachment 4 for an explanation of the total county tax revenue impacts of construction.

The Project's total annual impact on the county would be $2.0 million, which would increase the size of Alamosa County's economy by 0.1 percent, as measured by total output. Refer to Section 8.3.5 of the Project Economic Impact Assessment in Attachment 4 for an explanation of the annual economic impact by industry in Alamosa County.

The total annual tax impacts resulting from the Project's operations and maintenance would be $79,000, received at the local level (comprising sub-county, special districts, and county combined). Refer to Section 8.3.6 of the Project Economic Impact Assessment in Attachment 4 for an explanation of the annual county tax revenue impact of operations.

Total tax revenues are estimated to be $3.2 million at the local level. Refer to Section 8.3.7 of the Project Economic Impact Assessment in Attachment 4 for an explanation of the total accumulated county tax revenue impact of operations.

The Project would be located in Tax Area 22-6. At the end of the 40-year lifetime, the total lifetime payment of $19,312,634 would be allocated to various tax area jurisdictions. Refer to Section 9, Table 9-2 of the Project Economic Impact Assessment in Attachment 4 for an explanation of estimates of tax area 22-6, property tax per special district.

State and Federal Revenues

The state of Colorado will receive tax revenues from construction for $3,210,415, and the federal government will receive $12,275,958. Refer to Sections 8.4.6 and 8.4.7 and Table 8-19 of the Project Economic Impact Assessment in Attachment 4 for an explanation of the total state tax revenue impacts of construction.

The state of Colorado will receive tax revenues from operations for $120,906, and the federal government will receive $222,442. Refer to Section 8.5.6 of the Project Economic Impact Assessment in Attachment 4 for an explanation of the total annual state and federal tax revenue impact of operations.

The state of Colorado will receive total accumulated tax revenues from operations for $4,836,232, and the federal government will receive $8,897,664. Refer to Section 8.5.7 of the Project Economic Impact Assessment in Attachment 4 for an explanation of the total accumulated state and federal tax revenue impact of operations.

The state of Colorado would receive an estimated annual tax revenue of $161,208 from operations. Refer to Section 8.5.8, Table 8-26 of the Project Economic Impact Assessment in Attachment 4 for the total state tax revenue impact of operations.

The state of Colorado will receive an estimated $19,320 in total property taxes. Refer to Section 9, Table 9-1 of the Project Economic Impact Assessment in Attachment 4 for estimates of state-assessed property tax.

(2)(a)(vi)C Describe employment opportunities.

(2)(a)(vi)C1 Types of jobs and number of positions anticipated; employment; wage and salary schedules.

Refer to Sections 8.2.3, 8.3.4, 8.4.3, and 8.5.4 of the Project Economic Impact Assessment in Attachment 4 for tabulated estimates of employment opportunities during the Project construction and operation.

(2)(a)(vi)C2 Opportunities for employment of local citizens.

Refer to Section 7.2.3.1 of the Project Economic Impact Assessment in Attachment 4.

(2)(a)(vi)C3 Employment opportunities for low income and minority population in impact area.

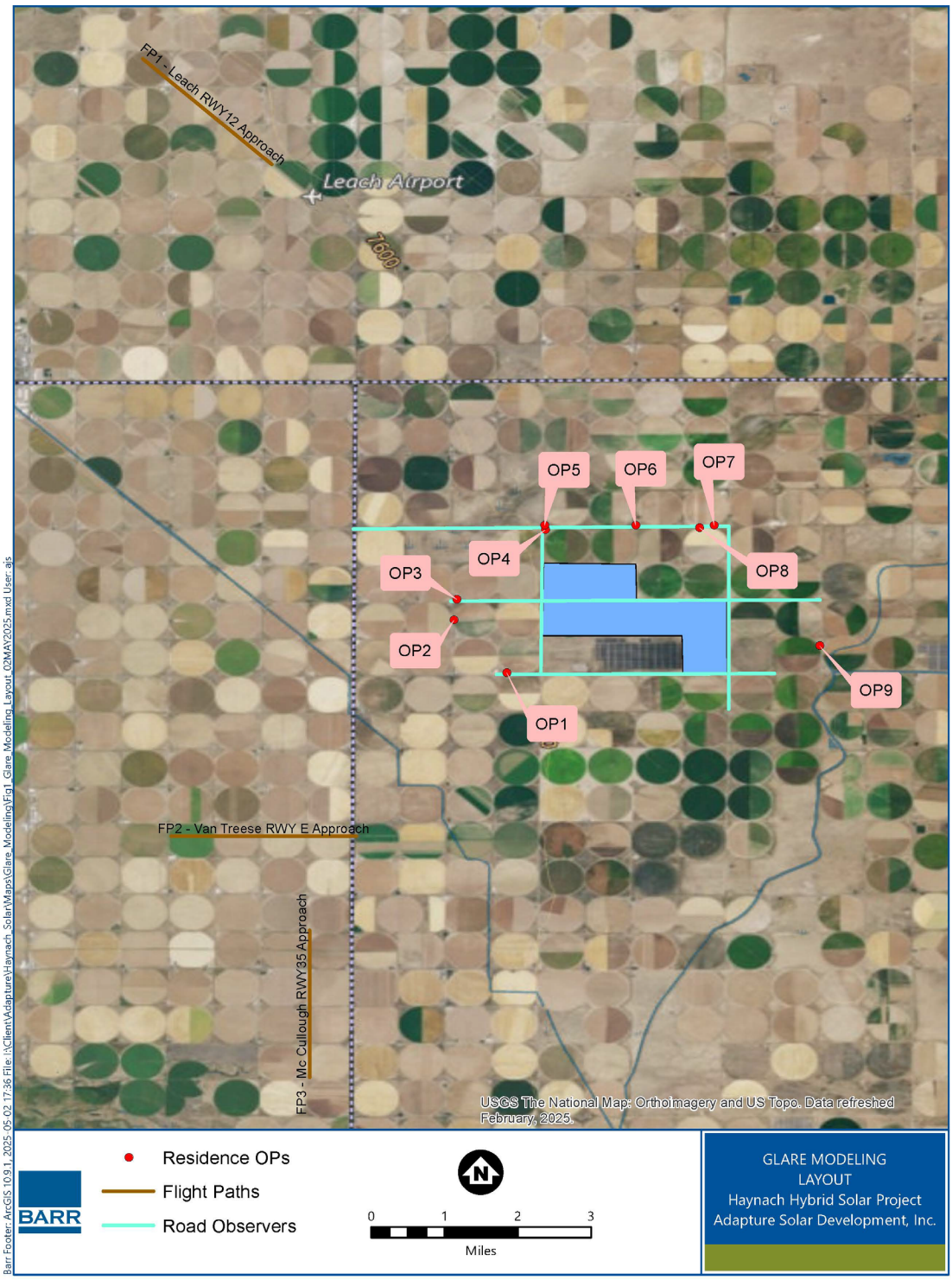
Refer to Section 7.2.3.2 of the Project Economic Impact Assessment in Attachment 4.

(2)(a)(vii) Description of visual conditions (base area).

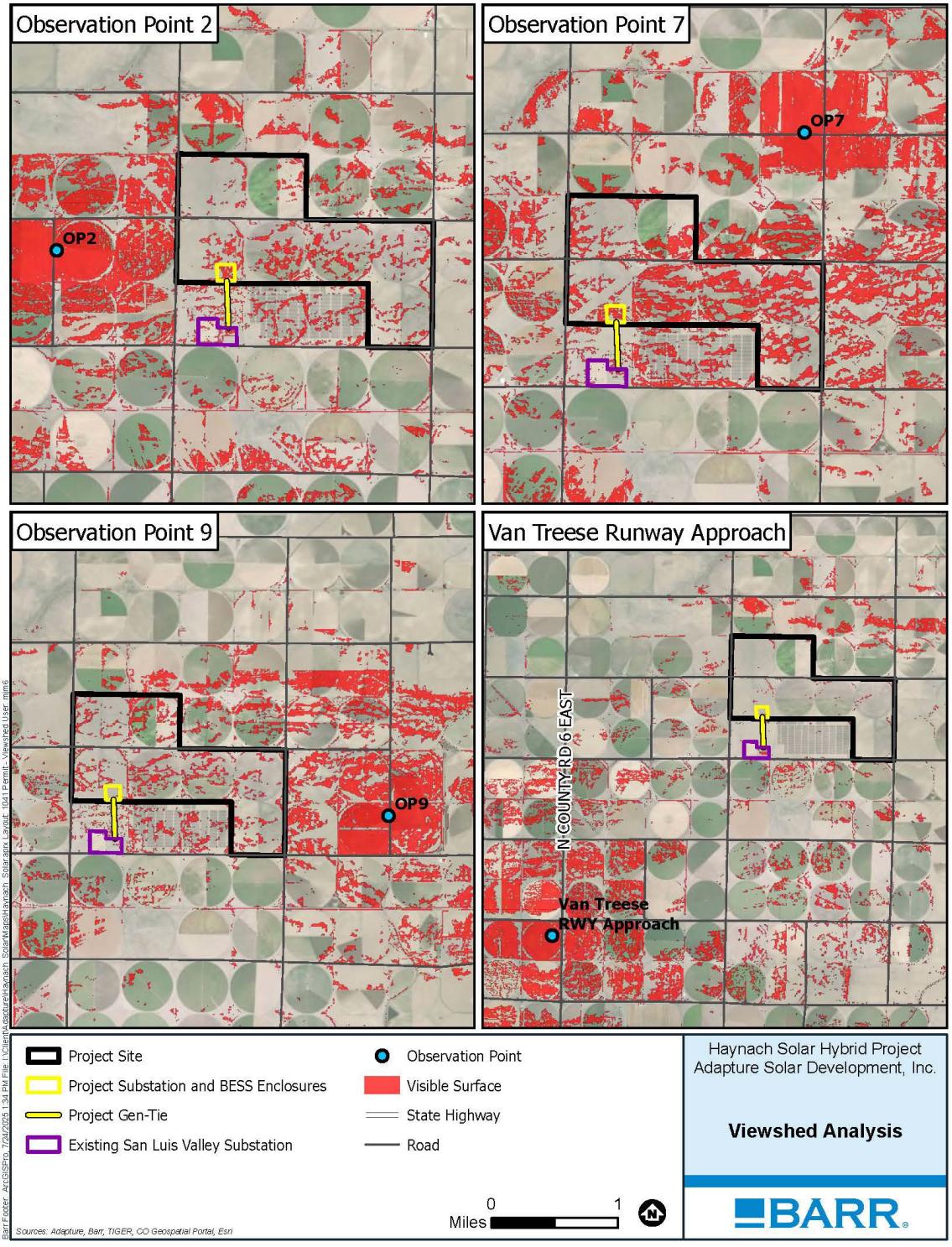
The visual conditions of the study area consist mainly of disturbed rangeland and both fallow and active agriculture. Agricultural cultivation in the area is completed within center-pivot irrigated crop circles, with apparent used and unused irrigation drainage ditches and depressions scattered across the landscape. The terrain is generally flat with minor areas of gradual undulation. There are a few residences within the visual base area (refer to the maps below), and no commercial businesses are located there. The existing Hooper Solar Project and associated interconnection infrastructure to the San Luis Valley Substation are the most notable visual baseline features in the assessment area.

(2)(a)(vii)A Map area within view of project.

A Glare Analysis was performed by Barr and is included in Attachment 6. The modeled layout of the analysis is shown on Map 2-6, depicting the projected panel areas as derived for input to the model. Receptors were placed on several roads in the vicinity of the Project. Selected route-based receptors included Eightmile Ln (Ln 8 N), Ln 9 N, Ln 10 N, E County Rd 102 N, and Rd N 104. Receptors were also placed on 2-mile approach paths for Leach Airport Runway 12, Van Treese Airport Runway E, and McCullough Airport Runway 35. Additionally, nine fixed observation points were modeled for potential surrounding residences within 1 mile, identified from aerial photo review, as shown in Map 2-6.



Map 2-5. Glare Analysis Layout



Map 2-6. Viewshed Analysis

Barr completed a desktop elevation model viewshed analysis. Depicted on Map 2-7. Project Topography are areas within 1 mile of the Project where it can be seen from the receptors. As with the glare analysis, receptors included public roads, residences, and approach paths to three area airstrips.

(2)(a)(vii)B Map access and travel routes, public areas, residential areas that will have a view of the project

Detailed Project public travel routes and access roads are mapped in the Project Transportation Impact Study and Level 2 Auxiliary Lane Assessment provided in Attachment 5 – Transportation Impact Study and Level 2 Auxiliary Turn Lane Assessment. Residences with a view of the Project are visible on the aerial image figures provided in the study, and on Map 2-6 and Map 2-7. There are no nearby public areas.

(2)(a)(viii) Description of noise conditions (base area)

A Project Noise Analysis was completed by Barr and is included in Attachment 7. Provided as follows is a summary of the noise baseline conditions at and near the Project site.

The Project is in a rural, agricultural area with dispersed farmhouses near the site. Existing noise sources include vehicular traffic on local roads, noise from agricultural operations, activities at the existing Hooper Solar Project facility, the San Luis Valley Substation electric substation and solar facility, and incidental background noise from nearby residences, wildlife, weather, or other environmental sources.

To assess existing background noise levels, noise measurements were conducted at the approximate center of the Project site (refer to Map 2-1 for reference) from 4:20 p.m. to 10:30 p.m., May 13, 2025. The sound levels measured during this period were:

- 45.6 dBA (Leq) from 4:20 p.m. to 10:30 p.m. (overall)
- 48.4 dBA (Leq) from 4:20 p.m. to 7:00 p.m. (daytime)
- 41.0 dBA (Leq) from 7:00 p.m. to 10:00 p.m. (evening)
- 28.4 dBA (Leq) from 10:00 p.m. to 10:30 p.m. (nighttime)

These levels are typical of a sparsely developed, rural area with little exposure to highway traffic or other urban or industrial noise sources. Based on the measurements and published estimates of ambient sound levels for various land uses provided in the analysis, it is reasonable to assume that background noise levels near the Project area are 30 A-weighted equivalent continuous sound level (dBA-Leq) or less in the late-night hours and 45 to 50 dBA-Leq during the day when daily activities are ongoing in the surrounding area. During the noise measurements, Barr observed that activity in the area was low; little traffic was observed, and no active agricultural operations were ongoing. Ambient noise levels are likely higher during times when more active agricultural operations are ongoing, for example, irrigation sprinklers or harvesting operations.

(2)(a)(ix) Description of socio-economic environment (impact area).

Given the rural nature of the county economy, a multi-region input-output (MRIO) model framework is adopted to show portions of labor and materials flowing from other regions of the state, including the urban centers, which would also be impacted by the Project construction and operations. See Appendix A of the Economic Impact Assessment (Attachment 4) for a further description of the MRIO model structure.

Within each region, construction and operations events were modeled using IMPLAN's Industry Impact Analysis (IIA) event type, which allows each region to have a unique production function, realistically capturing likely sourcing of labor and materials as well as sales tax rates. Economic impact model results are estimated averages across each of these two regions (Alamosa County and the entire state of Colorado).

(2)(a)(ix)A Characteristics of the existing population.

This section describes the demographic profile and trends of Alamosa County, a rural county in southern Colorado covering 723 square miles. The description of the local demographic and community trends focuses on several measures, including population, household composition, race, age, and education. Every attempt has been made to provide the most current data available; however, much of the data presented is sourced from the Colorado SDO and the U.S. Census, which is generally available through 2023.

(2)(a)(ix)A1 Age, income level and distribution, education, social background, family size, etc.

Refer to Section 3 of the Project Economic Impact Assessment in Attachment 4.

(2)(a)(ix)A2 Neighborhood and distinct socio-economic groups.

Refer to Sections 3.5 and 3.7 of the Project Economic Impact Assessment in Attachment 4.

(2)(a)(ix)A3 Migrational trends and seasonal fluctuations.

Refer to Section 3.4 of the Project Economic Impact Assessment in Attachment 4.

(2)(a)(ix)A4 Anticipated population changes.

Refer to Section 11.1 of the Project Economic Impact Assessment in Attachment 4. Given the size of the construction workforce (Table 8-14 in assessment) and considering the intention to hire locally, along with ongoing operations employment (Table 8-22 in assessment), including indirect and induced impacts relative to the size of the county, any changes to the county's population and social characteristics would be negligible.

(2)(a)(ix)B Current employment.

Refer to Sections 5.1, 5.2, and 5.3 of the Project Economic Impact Assessment in Attachment 4.

(2)(a)(ix)B1 Principal employers, type, number of employees.

Refer to Section 4.2 of the Project Economic Impact Assessment in Attachment 4.

(2)(a)(ix)B2 Unemployment and underemployment.

Refer to Sections 5.4 and 5.5 of the Project Economic Impact Assessment in Attachment 4.

(2)(a)(ix)B3 Characteristics of local labor pool.

Refer to Section 5.6 of the Project Economic Impact Assessment in Attachment 4.

(2)(a)(ix)B4 Manpower training and retraining potential.

Refer to Section 7.2.3.2 of the Project Economic Impact Assessment in Attachment 4.

(2)(a)(ix)C Inventory local governments and special districts providing services in base areas.

This section reviews public services that would be impacted by the Project construction and operations. Given the Project's location in unincorporated Alamosa County, law enforcement would fall under the sheriff's office, fire protection under the Alamosa County Fire Protection District, and emergency medical services (EMS) under the County Ambulance District. The location is also within the Sangre de Cristo School District and the Rio Grande Water Conservation District.

(2)(a)(ix)C1 Map jurisdiction and type of service.

Map 2-2 above delineates special districts serving the Project site.

(2)(a)(ix)C2 Capacity and utilization of services.

Refer to Section 11 of the Project Economic Impact Assessment in Attachment 4.

(2)(a)(ix)C3 Operating revenue and expenditures.

Refer to Section 11 of the Project Economic Impact Assessment in Attachment 4.

(2)(a)(ix)C4 Tax base.

Refer to Section 10 of the Project Economic Impact Assessment in Attachment 4.

(2)(a)(ix)C5 Current level of taxation.

Refer to Section 10 of the Project Economic Impact Assessment in Attachment 4.

(2)(a)(ix)C6 Estimate revenue-generating capacity and identify potential new sources of revenue.

Refer to Section 11 of the Project Economic Impact Assessment in Attachment 4.

(2)(a)(ix)D Housing.

Although Adapture would strive to hire as many local workers as possible for construction, the share of local hiring would depend on the availability of skilled labor in the region at the time of construction. A portion of the construction workforce would most likely require temporary housing during all or part of the construction. This section assesses the supply of currently available local housing and the demand for housing from workers who would temporarily reside in the county during construction. Actual rental market conditions at the time of construction may vary.

(2)(a)(ix)D1 Current housing inventory (including numbers, types, (owner or rental), sales or rental prices, year-round or seasonal, dormitories, mobile homes, and locations).

Refer to Sections 6.2, 6.3, and 6.4 of the Project Economic Impact Assessment in Attachment 4.

(2)(a)(ix)D2 Projected housing requirements (including numbers, types (owner or rental), sales or rental prices, year-round or seasonal, dormitories, mobile homes, and locations).

Refer to Sections 6.1, 6.5, and 6.6 of the Project Economic Impact Assessment in Attachment 4.

(2)(a)(ix)E Existing Transportation Network.

The existing transportation network consists of CO 17, CO 112, CR 102 N, and LN 8 N. Each is described in the Transportation Impact Study in Attachment 5 and summarized below.

CO 17 is a two-lane, principal arterial roadway with a CDOT highway classification of RA: Regional Highway. The roadway has a posted speed limit of 65 miles per hour (mph) within the study area.

CO 112 is a two-lane, minor arterial roadway with a CDOT highway classification of R-B: Rural Highway. The roadway has a posted speed limit of 65 mph within the study area.

CR 102 N is an unpaved county road that serves the surrounding rural Alamosa County. No posted speed limit was detected.

Similar to CR 102 N, Lane 8 N is an unpaved county road that serves the surrounding rural Alamosa County. No posted speed limit was detected.

(2)(a)(ix)E1 Access to site.

Site access will be provided off CR 102 N and LN 8 N. Vehicles will access from the surrounding communities via State Highway (CO) 17 and CO 112. Refer to the Vicinity Map in the Transportation Impact Study in Attachment 5.

(2)(a)(ix)E2 Circulation within base area and commuting patterns in impact area.

Existing traffic counts were collected at the intersections of CO 17 / LN 8 N and CO 112 / CR 102 N on Wednesday, June 4, 2025. Appendix A of the Transportation Impact Study and Level 2 Auxiliary Turn Lane Assessment contains the turning movement count data, and Figure 3 displays the existing traffic volumes. Average Daily Traffic (ADT) for CO 17 is approximately 2,400 vehicles per day (vpd), and ADT for CO 112 is 870 vpd as displayed in CDOT's Online Transportation Information System (OTIS).

(2)(a)(ix)E3 Capacities of arterial streets within impact area.

Section 3.3 of the Transportation Impact Study, Level 2 Auxiliary Turn Lane Assessment (Attachment 5) summarizes the existing baseline conditions level of service (LOS). LOS is a measure used to describe operational conditions at an intersection. LOS categories ranging from A to F are assigned based on the predicted delay in seconds per vehicle for the intersection overall and for individual turning movements. LOS A indicates very good operations, while LOS F indicates poor, congested operations. Overall, intersection LOS D is considered acceptable by CDOT and most municipalities.

The analysis indicates that the intersections at CO 17 / LN 8 N and CO 112 / CR 102 N currently operate at LOS A, with all movements also operating at LOS B or better.

(2)(a)(ix)E4 Maintenance provisions and costs.

There are no statutory impact fees, other than permit fees, associated with land development applications in Alamosa County. Maintenance of county roads in proximity to the Project site is currently completed by the county Road and Bridge Department. Project construction activities and facility operations will generate tax revenues for Alamosa County, which will be used, in part, for county road maintenance costs.

(2)(a)(ix)F Description of historical and archaeological resources.

To comply with historical preservation laws and 1041 regulations, an archaeological resources literature review and an intensive pedestrian survey (e.g., Class III) were conducted, focused on the Project site. Barr archaeologists inventoried the 1,109 acres, which are entirely on private land, under Colorado State Permit No. 85539. The inventory resulted in documenting six new sites and five isolated finds (IFs). None of the six sites is recommended to be eligible for listing in the National Register of Historic Places (NRHP). Provided below are brief descriptions of the sites and IFs found. A report has been submitted to the Colorado State Historic Preservation Office (SHPO) for review and concurrence.

(2)(a)(ix)F1 Describe historical and archaeological sites by means of completing state inventory forms and submit these to the State Historical Society for evaluation.

Six newly recorded sites (Site Numbers 5AL900.3, 5AL901.3, 5AL1247, 5AL1248, 5AL1249, and 5AL1250) were documented during the survey, including three linear historic sites consisting of two road segments and a segment of a historic transmission line. The remaining three sites consist of historic dumps. None of the identified resources is recommended as eligible for listing in the NRHP.

The five IFs consisted of three precontact and two historic artifact isolates. The IF number and description of each are provided below:

- 5AL1251: One tertiary obsidian biface thinning flake. Cultural affiliation: Precontact.
- 5AL1252: Five coffee cans, possibly 1960s. Some text remains ‘electric percolator’. Cultural affiliation: Historic.
- 5AL1253: One tertiary quartzite biface thinning flake. Cultural affiliation: Precontact.
- 5AL1254: Broken Corner Tang Knife Late archaic. Length 4 centimeters (cm), Width: 2.5 cm, Thickness: 0.2 cm, side notch depths: 0.4 and 0.7 cm. Cultural affiliation: Precontact Late Archaic 650 B.C.- 450 A.D.(1).
- 5AL1255: Five fragments of clear glass, one church key opened can, one broken Owens Illinois seltzer clear glass bottle. Cultural affiliation: Historic.

None of the recorded IFs retain sufficient significance and integrity beyond indicating that people have been in the area, and all of them are recommended as not eligible for inclusion in the NRHP. No further archaeological work is recommended for the IFs.

(2)(a)(ix)F2 Describe resources individually and as they relate to the community; include photos wherever possible.

Brief summary descriptions of each site and IF are provided as follows. Detailed descriptions of each site are included in the Class III Cultural Resources Inventory, which is on file with the SHPO. Isolates are described above. The photo below is of the IF 5AL1254.

Site 5AL900.3 Eight Mile Lane – HDR, EOC Inc. previously recorded a segment of Eight Mile Lane 5AL900.1 in 2013. The newly recorded segment begins at the intersection of County Road 104 and runs east to west. This segment of Eight Mile Road is a heavily used, crowned and ditched gravel road that provides access to adjacent agricultural fields.

Site 5AL901.3 Poncha Transmission Line – The site is a newly recorded segment of the Poncha Transmission Line that runs north–south through the project area. The Poncha 230 kV transmission line was part of the Fryingpan–Arkansas Project, a participating project under the broader Colorado River Storage Project (CRSP) authorized by Congress in 1956.

5AL1247 Road to Dickey's Wind Mill – Site HAY-RLC-01 is a newly recorded historical road identified during the literature review as the Road to Dickey's Windmill. The 1881 BLM-GLO plat map depicts a historic road labeled "Road to Dickey's Wind Mill" crossing project Sections 16, 21, and 22. The road was likely part of a failed homestead effort in the 1880s.

Photograph 2-1. Detail of Broken Corner-Tang Knife (IF 5AL 1254)

5AL1248 Historical Dump – Site HAY-RLC-02 is a newly recorded historical artifact scatter, consisting of an estimated 75 to 100 artifacts dispersed across the area. The assemblage includes various glass fragments—clear, purple, milk glass, aqua, and cobalt blue, dating from approximately 1800 to the present.

5AL1249 Historical Dump – Site HAY-RLC-03 is a newly recorded historic artifact scatter consisting of an estimated 100 artifacts, dispersed and clustered throughout the area. The assemblage includes a variety of glass fragments—clear, aqua, and purple—as well as scattered galvanized metal, unidentified can fragments, stoneware, and whiteware dishes. Several whiteware fragments include handles and plate sherds resembling teacups and saucers. A notable artifact concentration, designated AC-1, is near the center of the site and contains approximately 25 artifacts. This concentration includes one Hazel-Atlas cold cream jar, a logo used between 1920 and 1964, multiple porcelain plates marked "Made in Japan," and ceramics featuring transfer prints and polychrome floral designs.

5AL1250 Historical Dump – Site HAY-RLC-04 is a newly recorded historical artifact scatter consisting of an estimated 100 to 150 historic artifacts dispersed and clustered throughout the area. The assemblage includes a variety of glass fragments: clear, amethyst, aqua, and milk glass dating from approximately 1800 to the present. One Hazel-Atlas milk jar, bearing the company's maker's mark, was identified, which was in use between 1920 and 1964. Sanitary cans and various galvanized steel fragments are scattered across the site.

None of the sites or IFs relate to the community, except Eight Mile Lane and the Poncha Transmission Line, which are both currently still in use by the community and Xcel. The Project will not adversely impact or change the use of either site.

(2)(a)(x) Description of atmospheric conditions (impact area).

Waiver granted, refer to Attachment 1.

(2)(a)(x)A Meteorology

Waiver granted, refer to Attachment 1.

(2)(a)(x)B Topography

Waiver granted, refer to Attachment 1.

(2)(a)(x)C Background ambient air quality (TSP, S02, HC, CO, NOx, 03, etc.).

Waiver granted, refer to Attachment 1.

(2)(b) At the time of final application, applicants seeking a permit for the site selection and construction of transmission lines or substations shall submit, in addition to those requirements set forth in Subsection (a) of this Section, five (5) copies of the following documents and information:

(2)(b)(i) Description of geologic and pedologic conditions of base area.

Waiver granted, refer to Attachment 1.

(2)(b)(i)A Map bedrock and surficial geology.

Waiver granted, refer to Attachment 1.

(2)(b)(i)B Map and describe areas of:

(2)(b)(i)B1 Avalanches

Waiver granted, refer to Attachment 1.

(2)(b)(i)B2 Mud flows and debris fans

Waiver granted, refer to Attachment 1

(2)(b)(i)B3 All types of unstable or potentially unstable slope

Waiver granted, refer to Attachment 1.

(2)(b)(i)B4 Special seismic considerations

Waiver granted, refer to Attachment 1.

(2)(b)(i)B5 Areas of high radioactivity

Waiver granted, refer to Attachment 1.

(2)(b)(i)B6 Ground subsidence

Waiver granted, refer to Attachment 1.

(2)(b)(i)B7 Expansive soil and rock

Waiver granted, refer to Attachment 1.

(2)(b)(i)B8 Other geologic conditions which are pertinent

Waiver granted, refer to Attachment 1.

(2)(b)(i)C Map extent of 100-year floodplain if present.

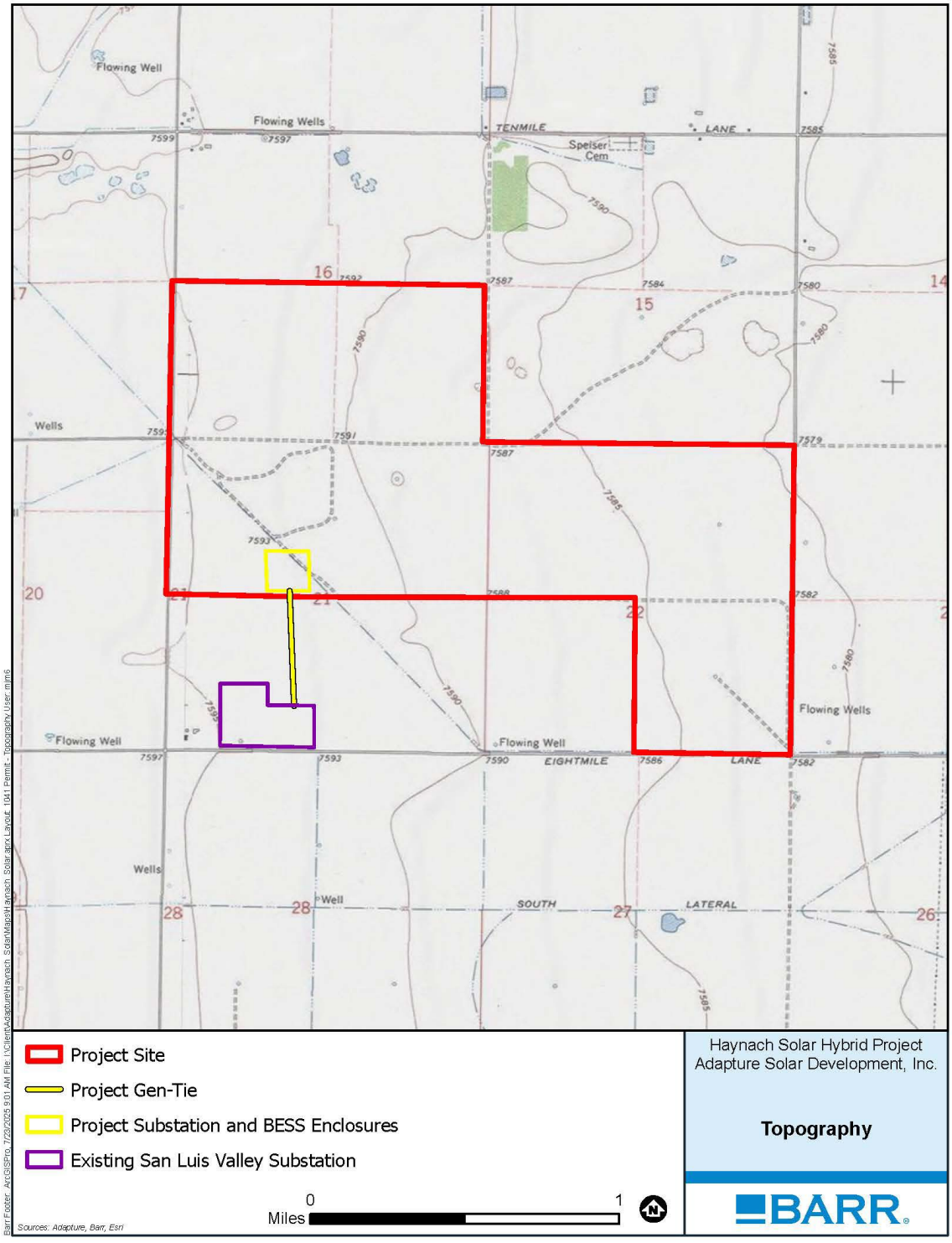
N/A. No floodplain present.

(2)(b)(i)D Map topography in adequate detail to determine adequacy of facility design.

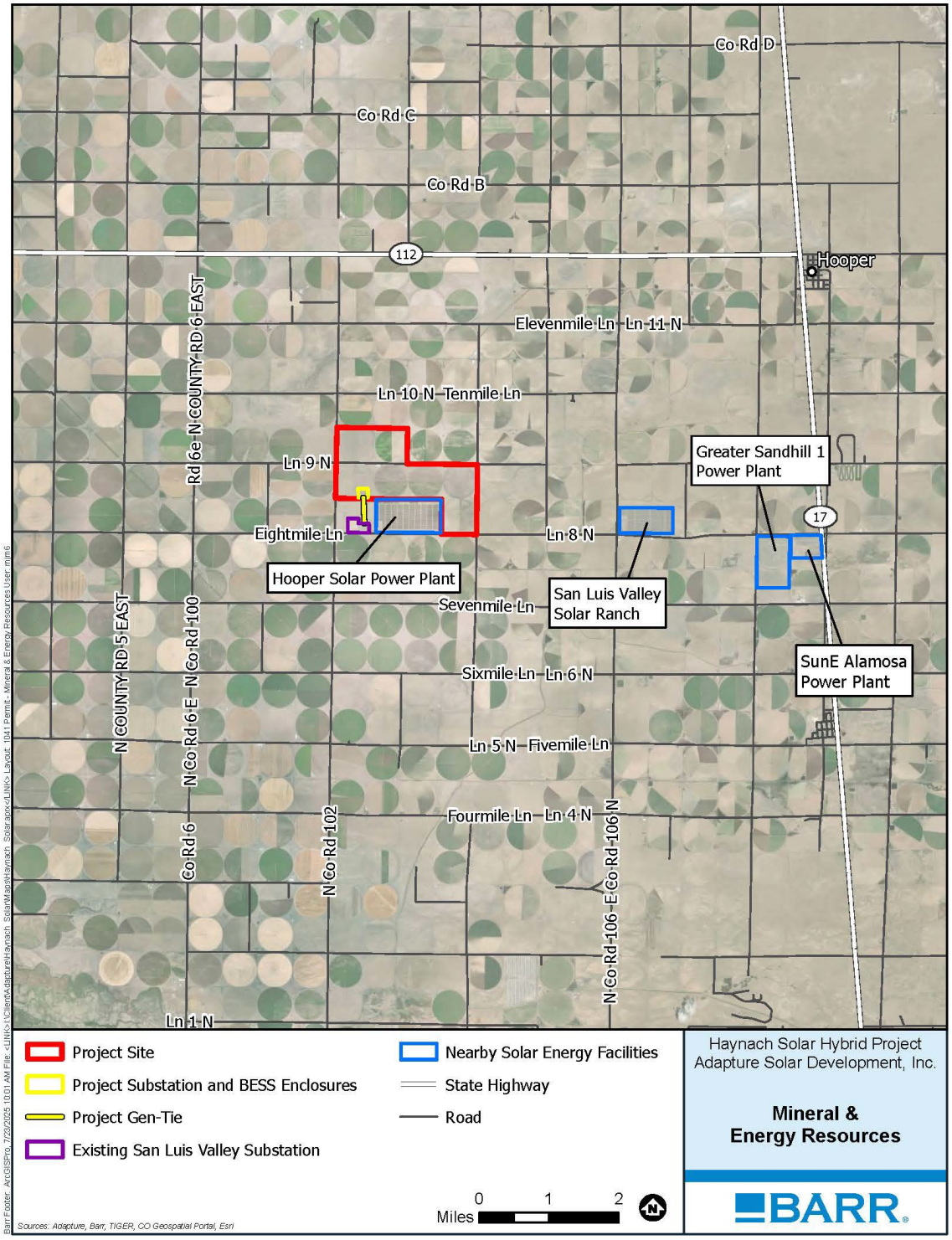
Map 2-7 shows Project site topography based on the Hooper West and Center South 7.5' U. S. Geologic Survey Topographic Quadrangle

(2)(b)(i)E Map and evaluate mineral and energy resources.

There are no active mines or oil and gas mineral resources present to map in the indirect impact area. Map 2-8 depicts energy resources in the form of solar farms near the Project site. Four other existing solar farms are within 5 miles of the site, all along Eightmile Lane east of the Project site.



Map 2-7. Project Topography



Map 2-8. Mineral & Energy Resources

(2)(b)(i)F Map and evaluate agricultural resources.

Map 2-9 shows agricultural resources on and adjacent to the Project site as mapped by CropScape. Potatoes are the predominant crop grown on the site and on adjacent farms.

(2)(b)(ii) Description of biotic conditions (impact area).

A Biological Resources Review of the Project site and a 1-mile radius was completed in 2023 and is included as Attachment 8 – Biological Resources Review. An initial site visit was completed on April 17 and 18, 2023, with the objective of identifying biological resources on/near the Project site. Field reconnaissance was conducted via windshield and pedestrian surveys within the project limits, as well as an assessment of raptor habitat within a 1-mile radius using binoculars and spotting scopes.

The biological resources assessment was completed using a combination of existing information obtained from publicly available sources, including reports, published literature, online databases, GIS data, and site reconnaissance. Biological resource protection measures to be adopted by Adapture, including Colorado Parks and Wildlife(CPW) Solar Energy Best Management Practices (BMPs), are included in Table 2-1 and in Attachment 8.

(2)(b)(ii)A Map plant communities.

Included in the Biological Resources Review is a vegetation map (Figure 6 in Attachment 8 – Biological Resources Review) that was based on the National Land Cover Dataset (NLCD). Map 2-10, a site plant communities map, is based on the Landfire Expected Vegetation Type (EVT) dataset.

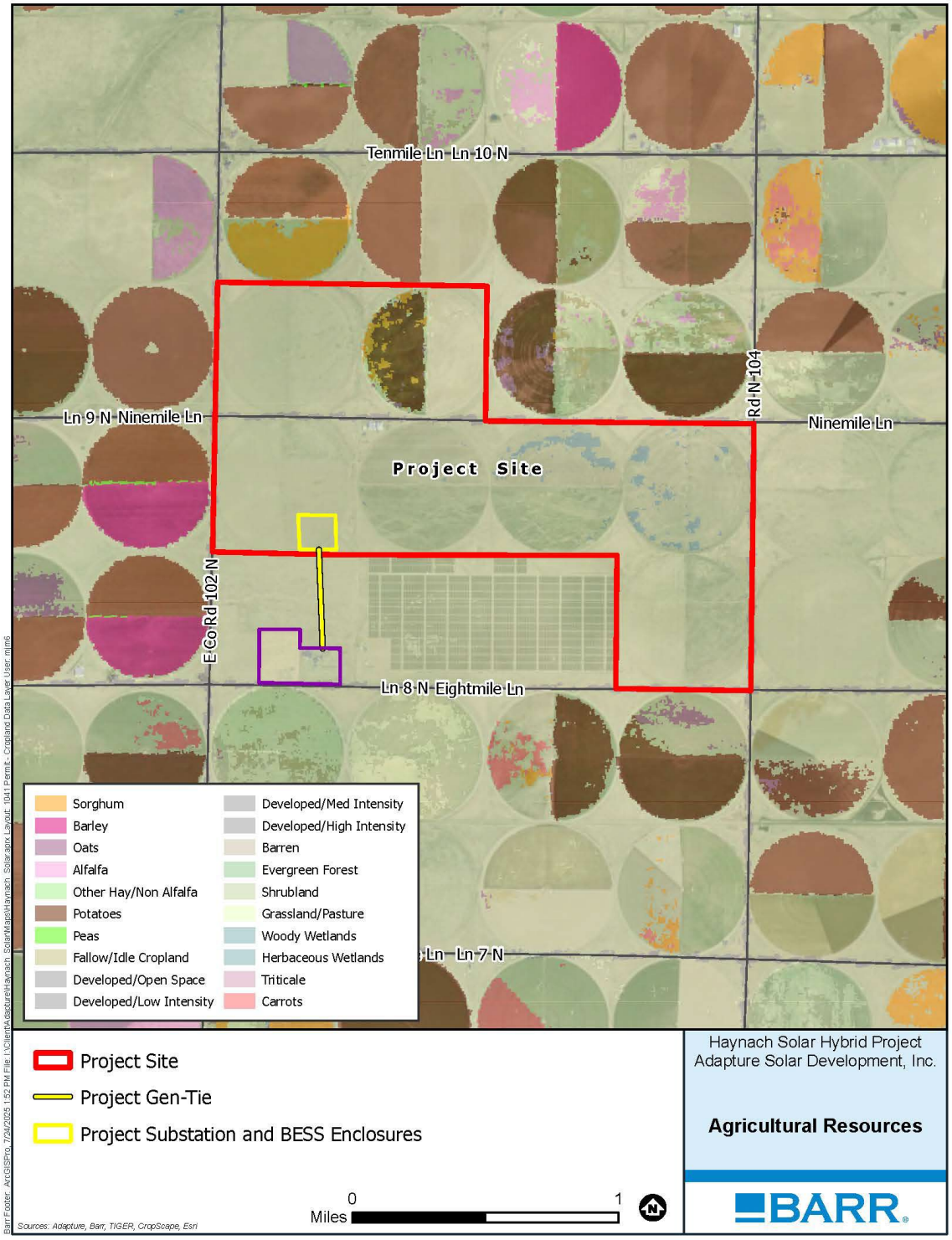
(2)(b)(ii)A1 Characteristics, quantity, productivity of plant types.

The field survey documented plant community types within the study area. Vegetation on the property was dominated by both native and invasive species commonly observed in the arid West. Community types on the property are as follows:

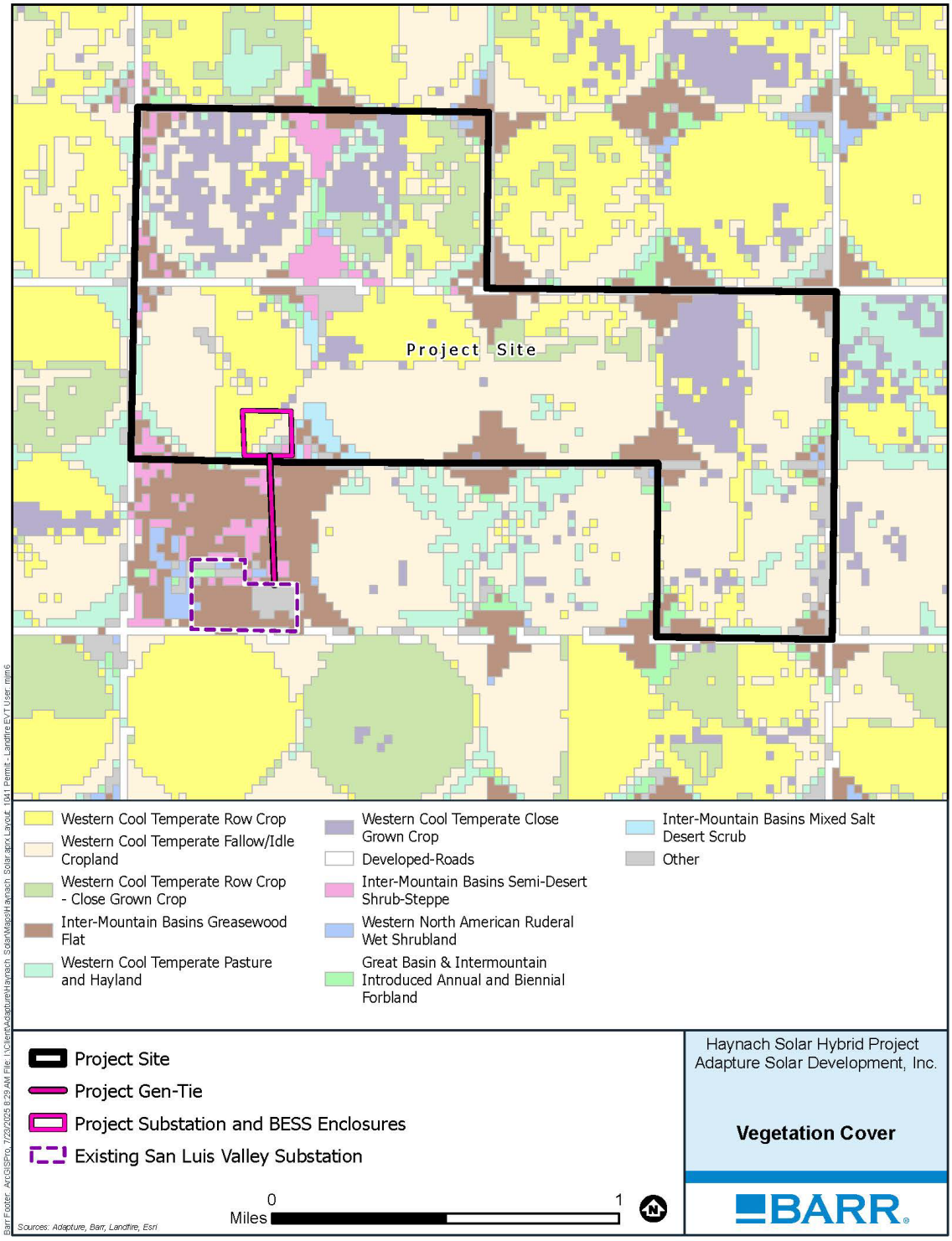
- 66% (736 acres) - fallow agriculture dominated by Russian thistle, kochia (*Bassia scoparia*), and bare ground areas.
- 21% (235 acres) -disturbed rangeland dominated by big sagebrush (*Artemisia tridentata*), Russian thistle (*Salsola tragus*), and bare ground areas
- 11% (126 acres) - active agriculture dominated by common wheat (*Triticum aestivum*).

Based on the NLCD, the study area consists mainly of cultivated crop lands with small portions of shrub/scrub and hay/pasture land cover types (refer to Figure 6 in Attachment 8 – Biological Resources Review). The site visit determined that NLCD land cover type locations were generally accurate compared to field observations.

The Colorado Department of Agriculture (CDA) listed noxious weed species and other invasive plant species that were observed on-site, including Kochia (*Bassia scoparia*) and Russian Thistle (*Salsola tragus*). Both species are considered nuisance species with eradication requirements. Noxious weeds were found primarily within the disturbed rangeland and fallow agriculture communities, accounting for approximately 52% (579 acres) of vegetation surface cover.



Map 2-9. Agricultural Resources



Map 2-10. Plant Communities

(2)(b)(ii)A2 Endangered or threatened plant species.

The Biological Resources Review, completed in 2023, is provided in Attachment 8 – Biological Resources Review. Based on the U.S. Fish and Wildlife Service (USFWS), Information for Planning and Consultation (IPaC), and the Colorado Parks and Wildlife (CPW), Colorado's Conservation Data Explorer (CODEX), and Species Activity Mapping (SAM), there are no endangered and threatened plant species with the potential to occur on the site. An updated the IPaC and CODEX report was obtained in July 2025. There are two state-sensitive plants with the potential to occur in the San Luis Valley, but neither is endangered or threatened. *Cleome multicaulis* is restricted to saline or alkaline soils, around alkali sinks, ponds, alkaline meadows, or old lake beds, which are not present on the Project site. *Delphinium robustum* grows in broad canyon bottoms, along edges of meadows, or in open woods, which are also not present at or near the Project site.

(2)(b)(ii)A3 Evidence of past disturbance and current indications of stages in ecological succession.

Agriculture, rural development, electrical infrastructure, and an existing commercially operational solar generation facility have extensively disturbed the study.

(2)(b)(ii)B Wildlife (Terrestrial)

(2)(b)(ii)B1 Determine species present, seasonal occurrence, status and relative importance.

The Biological Resources Review in Attachment 8 listed and assessed terrestrial wildlife with potential to occur in the Project area according to the USFWS IPaC (Section 4.3), CODEX, and CPW SAM species (Section 4.4) occurrence lists. Other terrestrial wildlife assessed included migratory birds (Section 4.5), raptors (Section 4.6), and bald and golden eagles (Section 4.7).

Direct observation of wildlife utilization or signs of wildlife (sightings, burrows, tracks, scat, etc.) included horned larks (*Eremophila alpestris*), western meadowlark (*Sturnella neglecta*), red-tailed hawk (*Buteo jamaicensis*), ground squirrel burrows (*Urocitellus* sp. or *Ictidomys* sp.), and coyote (*Canis latrans*) scat.

(2)(b)(ii)B2 Map distribution of species.

There are no species of concern, general wildlife of interest, or populations worth mapping. The CPW SAM, which maps species occurrence data, only identifies the Project site within the "range" (breeding, winter, or summer) of various species. There is no occurrence data or mapping specific to the Project site.

(2)(b)(ii)B3 Map biological features (migration routes, breeding grounds, etc.).

There are no unique or high-value biological habitat features in the Project impact assessment areas for wildlife. The Biological Resources Review in Attachment 8 includes various maps, but none that show important migration routes or breeding grounds.

(2)(b)(ii)B4 Identify species included on official federal or state list of endangered or threatened species.

Refer to Sections 4.3 and 4.4 in the Biological Resources Review in Attachment 8 for lists of USFWS IPaC, CODEX, and CPW SAM-listed endangered species with the potential to occur in the Project vicinity. The IPaC and CODEX reviews were updated in July 2025 and are included in Attachment 8. There were the same number of federally listed species with potential to occur on or near the site, five, though the threatened Mexican spotted owl is no longer listed as having potential, and the proposed

endangered Suckley's cuckoo bumble bee has been added. The Suckley's cuckoo bumble bee is considered by the USFWS to be extirpated in Colorado.

Based on the updated search, the state species of concern, Greater Sandhill Crane (*Antigone canadensis tabida*), is known to occur within 1 mile of the Project site. While sandhill cranes are known to periodically utilize croplands and grasslands as terrestrial habitats for foraging, most concentrations in the San Luis Valley are more commonly in closer proximity to aquatic habitats. The Burrowing owl (*Athene cunicularia*), a state-threatened species, was also added to the occurrence list in the updated search. Burrowing owls are most commonly associated with prairie-dog towns that have not been documented on the Project site.

(2)(b)(ii)B5 Identify species that are unique in their Colorado distribution.

According to the CODEX, the Greater Sandhill Crane has been documented within 1 mile of the Project site and is a species considered uniquely concentrated within the San Luis Valley, Colorado, on a seasonal basis. Based on the impact area, this crane sighting was likely one or more cranes in an agricultural field.

According to the Alamosa Visitor Guide, the end of February marks the start of the Greater Sandhill Crane migration into the San Luis Valley. By mid-April, an estimated 20,000 cranes have come and gone from the valley. While concentrated at the Alamosa, Monte Vista, and Baca National Wildlife Refuges due to the expansive wetland habitats present, the cranes can be found anywhere, including pastures, crop circles, and along roadsides.

(2)(b)(ii)C Wildlife (Aquatic)

No aquatic resources are present in the Project impact assessment areas. Attachment 9 provides the Wetlands Resources Delineation Report and a copy of the jurisdictional determination request submitted to the U.S. Army Corps of Engineers, Albuquerque District.

(2)(b)(ii)C1 Identify species present.

None, not applicable (N/A).

(2)(b)(ii)C2 Map streams, lakes and reservoirs which provide or have potential for habitat.

N/A, none present within the impact assessment areas.

(2)(b)(ii)C3 Map biological features (spawning runs, spawning beds, etc.)

N/A, none present within the impact assessment areas.

(2)(b)(ii)C4 Identify any endangered species (federal or state) or any which are unique in their Colorado distribution.

Refer to Sections 4.3 and 4.4 in the Biological Resources Review in Attachment 8 for lists of USFWS IPaC, CODEX, and CPW SAM-listed endangered species with the potential to occur in the Project vicinity. No federal or state-listed species are expected to be present, or if incidentally present, impacted by the project.

(2)(c) At the time of final application, applicants seeking a permit for the site selection and construction of pipelines or storage areas shall submit, in addition to those requirements set forth in subsection (a) and (b) of this Section, five (5) copies of the following documents and information:

(2)(c)(v) Description of hydrologic conditions – surface (impact area).

There are no surface water resources present on the Project site (refer to Attachment 9). The project site is located on FEMA FIRM Panel 0800090005A, dated January 19, 1978. That panel is not printed, and no digital data is available. Waiver granted, refer to Attachment 1.

(2)(c)(v)A Provide map of all surface water.

There are no surface water resources present on the Project site (refer to Attachment 9). Waiver granted, refer to Attachment 1.

(2)(c)(v)B Describe expected monthly stream flows for typical year, wet year, dry year (include 7 day -10 year low flows where sufficient data exists).

Waiver granted, refer to Attachment 1.

(2)(c)(v)C Describe physical stream features (gradient, velocity, depth, etc.).

Waiver granted, refer to Attachment 1.

(2)(c)(v)D Provide data on chemical and biological quality, including BOD, dissolved O2, free CO2, PH, TDS, ph-th alkalinity, MO alkalinity, NH4, heavy metals and other toxic or deleterious substances.

(2)(c)(vi) Description of hydrologic conditions - subsurface (impact area).

Waiver granted, refer to Attachment 1.

(2)(c)(vi)A Map all aquifers that may be affected by project.

Waiver granted, refer to Attachment 1.

(2)(c)(vi)B Provide tables, graphs, map showing permeability, transmissibility, thickness, volume, depth of aquifers.

Waiver granted, refer to Attachment 1.

(2)(c)(vi)C Describe geology of strata overlying aquifers including percolation rates, travel time to groundwater surface.

Waiver granted, refer to Attachment 1.

(2)(c)(vi)D Map of all wells using aquifers including diameter and flow rates.

Waiver granted, refer to Attachment 1.

(2)(d) At the time of final application, applicants seeking a permit for the site selection and construction of a power plant shall submit, in addition to those requirements set forth in subsections (a), (b) and(c) of this Section, five (5) copies of the following documents and information:

(2)(d)(v) Map locating and describing resource areas to be utilized as sources of energy.

Waiver granted, refer to Attachment 1.

(2)(d)(vi) Description of water system proposed:

(2)(d)(vi)A Source of supply, volume, and rate of flow at full development.

Water would be sourced from water wells on Parcel No. 5009163000040 and piped to the O&M Facility. Potable water use in the O&M Facility is expected to be less than 100 gallons per day (gpd). The county building code would dictate how much the septic system would need to be designed for by the number of personnel using the building and the number of sanitary fixtures required. But the anticipated gpd is a very low number. During construction, up to 20,000 gpd may be necessary for dust suppression. The existing water wells to be used each produce up to 1,000 gallons per minute (gpm), or 1,440,000 gpd. Adpature will need to apply for a change in use to the State of Colorado State Engineer to convert those water wells to commercial wells. Based on the gpd specified, there is more than adequate volume to support both phases of the Project.

(2)(d)(vi)B Water rights owned or utilized.

A water rights review was completed and is included in Attachment 10. Lee A. Welch owns water rights and permits associated with the NE1/4 of Section 22, Township 40N R9E under DWR Permit Numbers 29660-F (WDID 2014189) and 10334-F (WDID 2009110) within Parcel Number Parcel No. 500922100171. He also owns water rights and permits associated with the SW1/4 and SE1/4 under Permit Numbers 17513-F (WDID 2009113) and 17514-F-R (WDID 2009114), respectively, within Parcel No. 5009163000040.

(2)(d)(vi)C Proposed points of diversion and changes of points of diversion.

There are no points of diversion proposed from any area streams or reservoirs. Water would be sourced from water wells on Parcel No. 5009163000040 and piped to the O&M Facility. This would be a change in the point of diversion from the center pivot to the O&M Building, which would require a change in the use application with the State Engineer (refer to Attachment 10, the Water Rights Summary).

(2)(d)(vi)D Volume of stream flow to remain unused between points of diversion.

Any excess water not needed for commercial or industrial use could be transferred or sold by the owner to other water users within the area or placed in the U.S. Department of Agriculture (USDA) Conservation Resource Program (CRP) for later use.

(2)(d)(vi)E Dependability of supply (physical and legal).

The dependability of the water rights supply is expected to be reliable based on the minimal use of water required for the Project relative to the available water supply from existing parcel wells. Project water needs are approximately 200-300 AF during the 16-month construction period for dust suppression and 10 AF annually during Project operations for O&M building water use and periodic panel washing. The water rights and permits described in Section (B) have permitted uses of approximately 246-480 AF annually per well, subject to the Rules Governing the Withdrawal of Groundwater in Water Division No. 3 (The Rio Grande Basin) and Establishing Criteria for the Beginning and End of the Irrigation Season in Water Division No. 3 for All Irrigation Water Rights (Rules) (refer to Attachment 10 – Water Rights Summary and associated supporting information).

(2)(d)(vi)F Effects on downstream users.

Area agricultural water users should benefit from the reduction in water used and placed into the CRP. Refer to (2)(d)(vi)D above.

(2)(d)(vii) Description of air pollution control measures.

The only planned air pollution control measures are associated with those required as part of the Project SWMP. Specifically, the Project will implement air pollution control measures to minimize dust, consistent with EPA's 2022 CGP for dry climates. These measures will be detailed in the Project SWMP and are required 14 days prior to construction.

(2)(e) At the time of final application, all applicants shall submit an analysis of impacts as follows:

Impact analyses for each of the resources considered in this section were completed by Adapture consultants and are referenced and attached to this application.

(2)(e)(i) Summarize the major natural and socio-economic environmental constraints as they affect the site selection and construction of the facility as proposed.

Socio-economic impacts and constraints are detailed in the Project Economic Impact Assessment provided in Attachment 4. Potential constraints are limited to a housing market shortage to support the temporary construction workforce.

No natural resource constraints have been identified for the selected site. The following sections of this application discuss various natural resources investigations.

(2)(e)(ii) Describe present utilization of land, water, air, biotic, geologic and socio-economic resources within impact area as applicable to submission requirements.

The Proposed project area is zoned as "R-Rural," which is defined by the Alamosa County Land Use and Development Code (Code) as a "district primarily intended to provide for the protection and continuation of agriculture and forestry operations and the preservation of environmentally sensitive lands. This district is established for the vast majority of the County. It allows for the uses, services, and industry that are compatible with agricultural practices and that do not cause adverse impacts to agricultural and/or ranching operations." A solar facility should not cause adverse impacts to agriculture and/or ranching operations in the area and should be considered compatible with agricultural practices and a temporary use.

The current land use on the Project parcels is agricultural, with several center-pivot fields apparently fallow for several years and several others currently active. The Project area includes a mix of undeveloped land, existing agricultural operations, overhead transmission lines, existing photovoltaic solar energy uses, and the San Luis Valley substation. The Project site consists primarily of cultivated crop land with small portions of the site composed of a combination of inter-mountain basins greasewood flat, inter-mountain basins semi-desert shrub steppe, and developed areas with agricultural structures present. There are no wetlands or streams on the Project site. There are no unique or valuable geologic features or mineral resources associated with the site. Wildlife use of the site is typical of other agricultural fields that are devoid of wetlands or water resources in the valley. These drier agricultural fields are less biologically diverse than sites with aquatic resources present. Overall, the site is unremarkable from a natural resource standpoint.

(2)(e)(iii) Describe alternative uses for these resources.

As evidenced along Lane 8 N, utility-scale solar development is an ideal alternative land use in this portion of the county and the San Luis Valley. Three other solar power plants are within 5 miles of the

proposed Project site, which is strategically located immediately adjacent to the existing San Luis Valley Substation.

(2)(e)(iv) Analyze the effects of the proposed site selection and construction upon the natural and socio-economic environment of the impact area as applicable to submission requirements.

The following sections summarize the effects of the Project site selection and construction upon the natural and socio-economic environment. Resource-specific studies and assessments are provided as attachments for more detailed analysis.

(2)(e)(iv)A Provide analysis of hydrologic, atmospheric, geologic, pedologic, biotic, visual, and impacts.

Alamosa County waived requirements for hydrologic, atmospheric, geologic, and pedologic studies. Refer to the waiver list in Attachment 1.

The Project Biological Resources Report is provided in Attachment 8. The report summarizes the absence of any federal or state-listed species of concern associated with the site. No raptor nests were identified within a 1-mile radius of the site during the 2023 baseline survey, nor were any nests detected during 2025 follow-up biological surveys. There is a suitable habitat for migratory birds on the Project site, and pre-construction migratory bird nest surveys are recommended if disturbance activities are to occur during the nesting season (April 1 – August 31).

The Project Glare Analysis Memorandum and modeling results are provided in Attachment 6. Modeled impacts indicate there is minimal potential for glare to impact nearby receptors. Projected glare impacts are limited to drivers passing through the Project area on Lane 9 N. No glare impacts are modeled to affect nearby residences or pilots approaching nearby airports. A viewshed analysis using a digital elevation model was completed. The results of the viewshed analysis are displayed in Map 2-6. Viewshed Analysis. Based on terrain elevations near the Project site, the facility will be most visible from observation points (residences) within 1 mile of the site to the north. Views from the east and west will only see small portions of the facility. Virtually none of the Project site is visible from the ground at the Van Treese airstrip.

The Project Noise Analysis Report is provided in Attachment 7. Predicted construction equipment noise will slightly exceed the State of Colorado's standards near the Project boundary when construction occurs near the edges of the site. However, there are no sensitive receivers in these areas, so temporary construction noise should not constitute a nuisance. When construction moves toward the interior of the site, noise levels will meet the state's standards. Noise levels at the nearby residential receivers will meet the state's noise criteria during construction. Construction-related noise increases will not occur at night, and construction noise will be temporary. Worker commuter traffic and materials delivery vehicles will generate short-term increases in noise during construction. Predicted noise levels from the PCS units and substation/BESS facility are below the 55/50 dBA standards for the residential zone at all residential receivers and below the 80/75 dBA standards for the adjacent agricultural and industrial lands. Corona noise (defined in the report) from the Gen-tie Line is expected to be minor.

(2)(e)(iv)B Provide surface and subsurface drainage analysis.

A Hydrology Study evaluating the hydrologic and hydraulic characteristics of the proposed Project site was completed. The purpose of the study was to understand the flood depths, flow velocities, and scour depths associated with the 100-year, 24-hour storm event under existing conditions. The existing

topography is relatively flat, draining from west to east. The site is tributary to San Luis Creek, approximately 14 miles to the east. The elevation ranges from 2311 to 2318 feet. The Hydrology Study is included in Attachment 11 of this application.

The limits of anticipated 100-year inundation for depths greater than 0.25 feet within the Project vicinity are shown on Figure 8 in Attachment 11. The watershed experiences a minimal amount of inundation, as it is mostly agricultural land with no natural channels. One depression, near the southwest edge of the site, reaches a depth of almost 7 feet. Other areas within manmade channels can reach depths of 4 feet. Inundation depths outside of channelized areas and areas of depression typically do not exceed 1.5 feet within the project site. Expected flooding depth for a 100-year rainfall event was calculated for existing terrain conditions using the 2D modeling simulation option in HEC-RAS v. 6.2. Flooding depths and scour are limited throughout the Project site (generally less than 1.5 feet of inundation and less than 0.5 feet of scour). Flow velocities are generally less than 1.5 feet/second.

(2)(e)(iv)C Provide socio-economic impact analysis.

Socio-economic impacts are detailed in the Project Economic Impact Assessment provided in Attachment 4 Socio-economic impacts are detailed in Sections 8, 9, 11, and 12.

(2)(e)(iv)D Provide transportation impact analysis.

Attachment 5 provides the Project Transportation Impact Study and Level 2 Auxiliary Turn Lane Assessment. The study concluded that the anticipated traffic volume generated by the Project development is not expected to significantly impact the surrounding roadway network. Short-term construction-related traffic will be the largest generator of traffic for the site. Travel time delay and LOS impacts from short-term, construction-related traffic, as well as long-term, site-related traffic, are projected to be minimal.

A right-turn acceleration lane is warranted for the eastbound to southbound movement at CO 17 / LN 8 N. If CDOT requires the auxiliary lane, a temporary lane may be constructed. The sight distance evaluation indicates that each access has sufficient entering sight distance for a 65 mph roadway. There are no known safety issues in the existing study area, and the site-generated traffic is not expected to present any additional safety issues.

(2)(e)(iv)E Provide analysis of impacts upon agricultural productivity and agricultural resources.

According to the landowner, Mr. Welch, he has only been irrigating the parcels he owns in Section 16 (APN ended in 40) by using Central Pivot Irrigation. Out of the total 1,109 acres, Mr. Welch is currently farming only 160 acres and producing Sudan grass. He produces approximately 3 tons per acre, which is baled for sale. The market value of his production is estimated at $20,000/annually. In addition, Mr. Welch also receives approximately $24,000/annually under a Conservation Reserve Program to *not* farm to preserve area soils from eroding. Based on the U.S. Department of Agriculture's 2022 agricultural census of Alamosa County, there are 141,342 acres in farmland in the county. The portion that Mr. Welch has been farming (160 acres) is less than 1 percent (0.001 percent) of the county’s farmland. If you include all of the Project site acres, the Project will still only reduce agricultural productivity, in terms of acres in production, by less than 1 percent (0.007). The Project would generate greater tax and induced revenues for the county (refer to Attachment 4) compared to the small tonnage of Sudan grass being taken out of production.

(2)(e)(v) Analyze the long-term effects of the proposed site selection and construction upon the physical and socio-economic development of the impact area.

As described throughout this application and in the multiple attached special studies and assessments, the Project site selection will have minimal long-term adverse effects on physical developments in the impact area. There are no existing developments, such as businesses or public parks, in the impact area, but several residences and an existing industrial solar development are nearby. The impact area of the site selected appears to be compatible with the proposed Project, as the Project would be the fifth solar farm along Eightmile Lane.

The Economic Impact Assessment in Attachment 4 describes substantial socio-economic benefit, both in the short- and long-term within the socio-economic impact area (refer also to Section 2(e)(iv)C of this application).

(2)(e)(vi) Justify the proposed site selection and construction against the present and alternative uses of the resources in the impact area.

As described in Section(2)(e)(iv)E, nearly 90 percent of the proposed site has been fallow, non-productive agricultural land for years. Mr. Welch has made a personal decision to sell the land due to the value of the land parcels in close proximity to the San Luis Valley Substation and to other solar energy facilities in the county. It is Mr. Welch's decision and choice to stop farming and to sell his land for a greater financial return than its current use.

(2)(e)(vii) Describe a program to minimize and mitigate adverse impacts and to maximize the positive impacts of the proposed site selection and construction.

(2)(e)(vii)A Analyze alternatives

(2)(e)(vii)A1 Alternative locations and routes

Because the existing San Luis Valley Substation, jointly owned by PSCo and Tri-State, has available capacity to supplement the grid, and because the proposed Project is located immediately adjacent to the substation property, no alternative facility locations were considered by Adapture once the Project site was leased. There are essentially two alternative access routes to the Project site, from the north and from the south, both of which are existing routes into the San Luis Valley. Project-related traffic, from the construction and operation of the facility, will be proportional to where workers/employees reside and from the location where the Project equipment originates. There are no other access route alternatives to the site.

(2)(e)(vii)A2 Alternative types of facilities

According to the San Luis Valley Ecosystem Council, the valley has several attributes that make it an ideal location for solar energy development. These attributes include the following:

- High Altitude: As the highest mountain valley in the United States, the San Luis Valley benefits from clear skies and ample sunlight due to its elevation. This results in high levels of solar radiation, making it an excellent location for solar energy production.
- Abundant Solar Resources: The region receives a significant amount of sunlight throughout the year, with an abundance of sunny days. This makes it highly suitable for solar power generation technologies.

- Large Land Availability: The valley offers vast expanses of land, which is crucial for large-scale solar energy projects. This land availability allows for the development of utility-scale solar installations, including solar farms.
- Government Support and Incentives: There is a growing interest and push to develop the San Luis Valley for solar energy. Local governments, as well as state and federal agencies, may offer incentives, tax credits, and other support to encourage solar energy development in the region.
- Economic Opportunities: Solar energy development in the San Luis Valley can bring economic benefits to the local communities, including job creation, investment opportunities, and increased revenue through taxes and land leases.

(2)(e)(vii)A3 Use of existing rights-of-way

The Project utilizes the existing county road transportation network and associated rights-of-way for access to the project site. The gen-tie transmission easement is described in 4. below.

(2)(e)(vii)A4 Joint use of rights-of-way with other utilities

The Project design co-locates the proposed gen-tie interconnection facilities on the existing San Luis Valley Substation property. Additionally, no new roads are proposed to access the Project site; rather, the Project would utilize existing county road rights-of-way.

(2)(e)(vii)A5 Upgrading of existing facilities

N/A. The Project will interconnect to the existing San Luis Valley Substation. Precise facility upgrades are not currently known.

Table 2-1 below summarizes the mitigation measures to be implemented by Adapture should the Project be approved by Alamosa County.

Table 2-1 Haynach Solar Hybrid Project Mitigation Measures*

Resource	Mitigation Measure	Purpose
Biological Resources	A pre-construction avian nest survey is recommended if disturbance activities are to occur during the nesting season (April 1 - August 31).	MBTA compliance. Impact minimization
	If disturbance activities are to occur during the nesting season (November 15 – October 31), a pre-construction raptor nest survey is recommended.	Impact minimization
	Security and wildlife-friendly (where possible) fencing	CPW solar development BMP (refer to Attachment 8), public health, and safety
	During construction and operations, limiting vehicle speeds to 25 mph on project roads. Minimize the amount of exposed or open trenches. Install wildlife escape ramps as necessary.	CPW solar development BMP
	Development of a Revegetation and Weed Management Plan.	CPW solar development BMP and county request
	Night sky facility lighting	CPW solar development BMP

Resource	Mitigation Measure	Purpose
	The Project gen-tie will be designed in accordance with *Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006 and Reducing Avian Collisions with Power Lines: The State of the Art in 2012.*	CPW solar development BMP
	Reclamation and Decommission Plans were prepared in coordination with CPW and county planning and resource agencies.	CPW solar development BMP
	Compliance with CPUC Rule 3668, including pre-construction wildlife surveys and consultation with CPW.	CPW solar development BMP
Water/Soil Resources	A SWMP will be prepared.	Soil stabilization, water quality protection
	A Hazardous Materials, Waste Management, and Emergency Response Plan has been prepared.	Water and soil protection, as well as public health and safety planning
Cultural Resources	Any unanticipated discovery of archaeological resources will be immediately communicated to the SHPO to direct treatment and further action (if any).	Cultural resource impact minimization.
Traffic	A right-turn acceleration lane is warranted for the eastbound to southbound movement at CO 17 / Lane 8 N. If CDOT requires the auxiliary lane, a temporary lane may be constructed.	Public health and safety.
Visual	Night sky facility lighting.	Reduce nighttime visual impacts.

* Additional mitigation measures may be added during the 1041 review process.

Alternative solar facility types include PV and concentrating and/or solar thermal projects. The proposed Project, a PV facility with added BESS, represents a more cost-effective and higher rate of investment return compared to other solar technologies. Additionally, PV facilities already exist in the valley, whereas at least two previously proposed solar thermal projects in Saguache County were either never permitted or built by the developer.

Alternative fuel facilities include coal-burning or natural gas combustion power plants. The San Luis Valley has low potential for coal, oil, and gas resource development, as evidenced by the absence of such energy facilities in the valley. Building a power plant utilizing these natural resources would require significant infrastructure development, such as rail lines and pipelines to bring coal, oil, or natural gas into the valley in sufficient volumes to generate 100 MW of power. Because of these constraints and associated costs, these alternative fuel facility types are not viable alternatives.

(2)(e)(vii)B Analyze non-structural alternatives as applicable.

Non-structural alternatives include conservation of energy use and no new development. Neither alternative addresses the rapid expansion of energy consumption in Colorado. According to the U.S. Energy Information Administration, before 2030, Colorado's demand for electricity is expected to surge from 10 gigawatts to 14 gigawatts, with the potential to double to 20 gigawatts. For perspective, a continuous power supply of 1 gigawatt could potentially power around 700,000 homes (https://pknergypower.com/what-is-megawatt-and-how-many-homes-can-it-power/). Some estimates suggest a gigawatt could power 1,000,000 depending upon the consumption rate

(https://teacherscollegesj.org/how-many-homes-can-a-gigawatt-power-for-a-year/). This amount of electricity cannot be produced in Alamosa County or in the state of Colorado by conservation alone. Further, because of the projected increase in electric energy demand, no new development is not a sustainable alternative to meet anticipated demand.

(2)(e)(vii)B1 Conservation of energy use

Energy conservation is not a viable alternative to new energy development in Colorado. The state is committed to transitioning to 100% clean electricity generation by 2040 and rapidly expanding vehicle electrification. This transition is part of Colorado's broader strategy to reduce greenhouse gas emissions and protect the health of communities and the natural environment (refer to Section (2)(a)(iii)A. The state's roadmap and legislative actions are designed to ensure a clean energy future, which includes reducing GHG emissions and increasing investment in renewable energy sources.

(2)(e)(vii)B2 No development

No development would not meet the Project's purpose and need, nor would it necessarily conform to local, state, and federal programs and policies to expand renewable energy development outlined in Section 2(a)(iii)A.

(2)(e)(vii)C Analyze management alternatives (i.e. development scheduling, training programs, facility design, land trades, etc.).

The location of the Project is dependent on the ability of the existing transmission infrastructure to accept additional generation into the grid at the San Luis Valley Substation. Consequently, there are no management alternative locations to the proposed Project location. The San Luis Valley Substation is co-owned by PSCo and Tri-State and has been identified by both utilities as having available capacity to allow the Project to connect into the grid with minimal upgrade cost. The proposed Project site is located a short distance from the San Luis Valley Substation, and the proposed interconnection route to connect our project to the substation extends across tilled agricultural land with no nearby homes or related development. Short transmission lines and interconnection at a substation with minimum upgrade cost help the Project reduce construction costs and minimize generation costs for the electricity to be produced for the grid.

The Project is located adjacent to an existing solar project (50 MW Hooper Solar). Though the Project is an independent facility, its proximity to the existing project will make it appear to be an expansion of a similar use and will, therefore, minimize the visual impact on surrounding areas. The existing project has also helped neighbors adapt to a new type of land use in the area, reducing the potential of the proposed Project creating new concerns about land use changes.

The Project is located on tilled agricultural land with minimal presence of natural habitat. Natural resource surveys completed by the project and reviewed by state and federal agencies have confirmed avoidance of impacts to sensitive natural resources. As a result, the Project supports Alamosa County's goals for sustainable development.

The Project is located on flat terrain and requires minimal site grading or improvements prior to site construction. The open terrain allows for optimized panel layout and minimizes unused space within the project area. Minimal site preparation and unused space help maintain lower project costs and generation pricing.

(2)(e)(vii)D Analyze air and water pollution control alternatives.

The only planned air and water pollution control measures are associated with those required as part of the Project SWMP. Specifically, the Project will implement soil erosion control measures consistent with those in the CGP and air pollution control measures consistent with EPA's 2022 CGP for dry climates. These measures, including erosion control BMPs (i.e., silt fencing, vegetation retention, wind fencing, sediment traps, seeding, etc.), will be detailed in the Project SWMP and are required 14 days prior to construction. No alternative measures to those to be approved by CDPHE are considered.

(2)(e)(vii)E Analyze design alternatives (access, landscaping, architectural controls, etc.).

The Project is using a combination of single-axis tracking photovoltaic solar panels and battery energy storage technology to meet interconnection suitability needs. The combination of solar panels coupled with battery energy storage allows the facility to generate electricity throughout the day and store excess energy in the battery system. During periods of lower solar generation, the battery system can discharge energy into the system, providing a stable and reliable power supply across a wider period of time. Using solar panels to generate electricity provides a long-term energy source with no greenhouse gas emissions and provides a long-term stable tax income for the county.

(2)(e)(vii)F Submit a program to meet "front end" costs of providing necessary services and facilities.

Based on communications with the Alamosa Planning Department (Richard Hubler), the "front end" costs in this section refer to upfront costs to mitigate Project impacts. Provided in Section (2)(e)(vii) is a tabular listing of mitigation measures and the rationale for providing such services and design features to the facility.

Attachment 1 – Waiver Request

Attachment 2 – Preliminary Application Comment Response

Attachment 3 – Project Description

Attachment 4 – Economic Impact Assessment

Attachment 5 – Transportation Impact Study and Level 2 Auxiliary Turn Lane Assessment

Attachment 6 – Glare Analysis

Attachment 7 – Noise Study

Attachment 8 – Biological Resources Review

Attachment 9 – Wetlands Resources Delineation Report and AJD Request

Attachment 10 – Water Rights Summary

Attachment 11 – Hydrology Study

Attachment 12 – Final Hazardous Materials, Waste Management, and Emergency Response Plan

Attachment 13 – Revegetation Management and Weed Plan