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**2.303(1) Completed Application Form**

The application form is attached as **Appendix 1: Application Form** including a legal description of the Project property.

**2.301(2) Additional Information, as Required by the Director**

To be determined.

**2.303(3) Certification of Deed Research of Mineral Owners and Notification to Mineral Owners of Surface Development**

The certification of deed research and notification to mineral owners, including certified mail receipts are attached as **Appendix 2: Certification of Deed Research and Notification to Mineral Owners.**

### **2.3.03(4) Information Describing the Applicant**

#### **2.303(4)(a) The Names, Address, Including Email and Fax Number, Organizational Form and Business of the Applicant and, if Different, the Owner of the Project Applicant:**

Grazing Yak Solar, LLC  
Alsey Davidson, Project Developer  
Alsey.davidson@nexteraenergy.com  
700 Universe Boulevard, E5E/JB  
Juno Beach, FL 33408  
Phone: (561) 814-7287  
Organization Type: A subsidiary of NextEra Energy Resources, LLC  
Business: wind and solar project development

**Owner:** Grazing Yak Solar, LLC  
31275 Washington Road  
Calhan, CO 80808

#### **2.303(4)(b) The Names, Address, and Qualifications, Including those Areas of Expertise and Experience with Projects Directly Related or Similar to that Proposed in the Application Package, of Individuals who are or will be Responsible for Constructing and Operating the Project**

The Grazing Yak Solar Project (Project) has executed a contract with Mortenson Construction (Mortenson). Mortenson has installed over 3.7 gigawatts (GW) of solar facilities at 61 projects over a period of nine years. Mortenson is capable of all design phase and construction services including cost estimating, design management, production modeling, site logistics planning, self-perform civil, self-perform electrical, and self-perform high voltage. Mortenson has installed solar facilities for projects slated for utility, distributed generation, and rooftop/carport solar projects. The applicant, Grazing Yak Solar, LLC will operate the project and its expertise and experience is described further below. Mortenson is located at the following address:

Address:  
700 Meadow Lane North  
Minneapolis, MN 55422

#### **2.303(4)(c) Written Authorization of the Application Package by the Project Owner, if Different than the Applicant**

Grazing Yak Solar, LLC owns the parcel on which the solar array is located. Portions of the parcel on which the collection line corridor is located are leased by the Applicant (**Appendix 3: Project Lease Agreements and Deed**); temporary laydown yards will be used under the authorization of landowners affected by the Project, and are considered a part of this 1041 application (**Appendix 4: Authority to Represent Letters**).

**2.303(4)(d) Documentation of the Applicants Financial and Technical Capability to Develop and Operate the Project, including a Description of the Applicant's Experience Developing and Operating Similar Projects**

NextEra Energy, Inc. (NYSE: NEE), with approximately 46,790 MW of generating capacity, is one of the largest electric power companies in North America with electric generation facilities located in 34 U.S. states and four Canadian provinces. Through its various subsidiaries, NEE provides retail and wholesale electric services to more than 5.3 million customers and owns generation, transmission and distribution facilities to support its services; it also has investments in gas infrastructure assets across the country. NEE, through NextEra Energy Resources, LLC, is the largest generator of renewable energy from the wind and sun in North America based on MWh produced. A Fortune 150 company and included in the S&P 100 index, NEE has been recognized often by third parties for its efforts in sustainability, corporate responsibility, ethics and compliance, and diversity, and has been ranked No. 1 in the electric and gas utilities industry in Fortune's 2017 list of "World's Most Admired Companies."

NEE's business strategy has emphasized the development, acquisition and operation of renewable, nuclear and natural gas-fired generation facilities in response to long-term federal policy trends supportive of zero and low air emissions sources of power. NEE's generation fleet has significantly lower rates of emissions of CO<sub>2</sub>, SO<sub>2</sub> and NO<sub>x</sub> than the average rates of the U.S. electric power industry with approximately 97% coming from renewable, nuclear and natural gas-fired facilities (measured by MWh produced).

NEE was incorporated in 1984 under the laws of Florida and conducts its operations principally through two wholly owned subsidiaries, Florida Power & Light Company (FPL) and NextEra Energy Resources, LLC (NextEra). NextEra Energy Capital Holdings, Inc. (NEECH), another wholly owned subsidiary of NEE, owns and provides funding for NextEra's and NEE's operating subsidiaries, other than FPL and its subsidiaries. NEE's two principal businesses also constitute NEE's reportable segments for financial reporting purposes.

As a competitive energy business, NextEra's primary business objective is the development, construction and operation of power plants. The company has been generating clean energy for more than 25 years. Together with its affiliated entities, NextEra is the world's largest generator of energy (MWh) from the wind and the sun, comprising a portfolio of more than 14,250 MW of wind and almost 2,100 MW of solar. NextEra believes that the green attributes of our generation assets, operational excellence, creditworthiness and our ability to offer and manage reliable customized risk solutions to wholesale customers are competitive advantages.

A complete list of NextEra's operating assets can be found here:  
[https://www.nexteraenergyresources.com/pdf\\_redesign/portfolio\\_by\\_fuel.pdf](https://www.nexteraenergyresources.com/pdf_redesign/portfolio_by_fuel.pdf)

Due to NextEra Energy's size, credit standing and available liquidity, we are one of the few companies in the energy industry that has the flexibility to initially fund the development and construction of a project using our balance sheet and is not obligated to obtain external financing at these stages. Current Senior Unsecured Debt Rating:

- ▶ S&P: A-/Stable
- ▶ Moody's: Baa1/Stable

Selected financial information is provided in the websites below:

- ▶ General financial information:  
<http://www.investor.nexteraenergy.com/phoenix.zhtml?c=88486&p=irol-irhome>
- ▶ Current bond ratings – see attached sheet for latest credit rating info in company website under Fixed Income:  
<http://www.investor.nexteraenergy.com/phoenix.zhtml?c=88486&p=irol-fixedIncome>
- ▶ Annual reports for the last three years -  
<http://www.investor.nexteraenergy.com/phoenix.zhtml?c=88486&p=irol-reportsCorporate>
- ▶ Audited financial statements – see financial statements included in the annual reports referenced above, or in the annual 10-K SEC filings  
<http://www.investor.nexteraenergy.com/phoenix.zhtml?c=88486&p=irol-sec>

### **2.303(4)(e) Written Qualifications of Report Preparers**

**CORE Consultants, Inc. (CORE)** – CORE is a Colorado company providing environmental permitting, natural and cultural resource management, construction compliance monitoring, GIS, civil engineering, and land surveying services to the renewable energy, electric transmission and land development industries. CORE has played a critical role in the development of over 15,000 MW of renewable energy projects and hundreds of miles of electric transmission lines throughout the U.S. CORE provides comprehensive services for all aspects of development, from greenfield siting and micrositing, through construction management and operational compliance.

**Terracon Consultants, Inc.** – Terracon provided a range of environmental consulting services for the Project. Terracon is a 100 percent employee-owned consulting engineering firm providing quality services to a diverse portfolio of private and public clients. Since 1965, Terracon has evolved into a successful multi-discipline firm specializing in environmental, geotechnical, facilities, and construction materials testing. Evaluating, identifying, and designing programs to minimize the impact of human activity on natural and cultural resources is the key to Terracon's natural/cultural resources program. Conservation of wildlife habitat, preserving archaeologically-significant sites, and protection of vegetation are the guiding concerns in considering opportunities and constraints in developing innovation solutions for environmentally sensitive areas. Terracon's national resources professionals include biologists, wetland specialists, ecologists, archaeologists, and architectural historians with many years of experience in dealing with local, state, and federal agencies in the areas of permitting and regulatory compliance.

**AECOM Technical Services, Inc.** – AECOM is one of the leading environmental, engineering, and power services providers in the world. With over 85,000 employees in 150+ countries, AECOM provides a global network of professionals who specialize in environmental, planning, engineering, architecture, and construction services. AECOM provides full life-cycle services to the power market including the wind, solar, and energy storage industry throughout North America and internationally. AECOM provides energy analysis and planning, environmental management and permitting, conceptual design, detailed design, engineering, procurement, project management, construction management, compliance monitoring, and asset management. AECOM's North America operations is comprised of over 40,000 professional staff of engineers, architects, planners, scientists, program and construction managers and operations and maintenance specialists all working together to develop innovative and cost-effective solutions.

**Tetra Tech, Inc.** - Tetra Tech is a full-service consulting and engineering firm with a substantial global presence. Tetra Tech's innovative, sustainable solutions help our clients address their water, environment,

infrastructure, resource management, energy, and international development challenges. Tetra Tech is proud to be home to leading technical experts in every sector and to use that expertise throughout the project life cycle. Tetra Tech has completed support services for over 1,000 power projects across North America.

### **2.303(5)(a) Vicinity Map**

A Project vicinity map is provided in **Appendix 5: Vicinity Map**.

### **2.303(5)(b) Executive Summary, Including Scope and Need**

This 1041 application is submitted by Grazing Yak Solar, LLC (Applicant) in request to construct a major facility of a public utility; i.e., the Grazing Yak Solar Project (Project) that will be owned and operated by the Applicant. The application addresses Chapter 2.303 and 5.201-5.202 of the El Paso County Guidelines and Regulations for Areas and Activities of State Interest. This portion of the 1041 application includes an explanation of the Project's conformance to Chapter 2.303 of the El Paso County Guidelines and Regulations for Areas and Activities of State Interest, and all applicable appendices to both Chapters 2.303 and 5.201-5.202 as outlined below. The Applicant will construct, operate, and maintain the Grazing Yak Solar Project, a 35-megawatt (MW) photovoltaic solar energy generation facility, to provide renewable energy to Colorado Springs Utilities (CSU), which provides energy to the electricity area of the CSU service area (**Appendix 6: CSU Service Area Map**). The Project's Power Purchase Agreement (PPA) states that the Project will provide energy to CSU for a term of 25 years (**Appendix 7: Power Purchase Agreement**).

The proposed Project includes solar panels, underground collection lines, DC to AC inverters, medium voltage transformers, circuit breakers and disconnect switches, upgrades within the existing Golden West Wind Energy Project ("Golden West") substation, two temporary laydown areas for use during construction, and the use of the existing Golden West Operations & Maintenance (O&M) building. The Project encompasses 377 acres.

The Grazing Yak solar array (solar array) will be located on an Applicant-owned 272-acre parcel most recently used as range land situated east and south of the intersection of McQueen Road and Washington Road. The parcel containing the solar array was deeded to the Applicant on March 1, 2019 and was issued a new Tax Schedule/Parcel Number (1200000390) by the county clerk and recorder.

The Project scope includes the installation of single axis tracking solar PV panels, DC to AC Inverters, medium voltage transformers, circuit breakers and disconnect switches, underground collection lines, and substation upgrades. The collection lines will transport energy from the inverters and will converge at the northeast corner of the solar array and run approximately one-mile north within a 300-foot wide collection line corridor to interconnect to the existing Golden West substation, owned and operated by the Applicant. Portions of the parcels on which the collection line corridor is located are leased by the Applicant (**Appendix 3: Project Lease Agreements and Deed**) The substation encompasses one acre and will be upgraded to accommodate the Project. The substation is owned by an affiliate of the Applicant, Golden West Power Partners, LLC. Substation modifications will consist of installation of a new feeder breaker and metering for the solar project and infrastructure to accommodate the breaker and metering. No new power transformers will be installed in the substation, and the height and dimensions of the substation modifications will mirror existing substation infrastructure. Energy will be transferred via an existing 29-mile transmission line to the Jackson-Fuller Substation located in Falcon, Colorado, at which point energy will be metered and delivered to CSU.

Two temporary laydown yards will be utilized during construction. A roughly 39-acre laydown yard (Laydown Yard 1) will be located within the Golden West Power Partners, LLC parcel (1200000339) located at the northern end of the collection line. A roughly 20-acre temporary laydown yard (Laydown Yard 2) will be located adjacent to the western edge of the solar array on the Balsick parcel (1200000387). Laydown Yard 2 will include three temporary construction trailers which will provide office space for Mortenson and NextEra on-site personnel, daily meeting spaces, conference areas, and medic offices to respond to personnel injuries during construction. No overnight employee housing will be located in the Project. Overnight security personnel will access the site during construction. A 48' x 12' trailer will provide space for safety and job site medics, a 60' x 36' trailer will provide office space for the contractor personnel and site orientation and training, and a 60' x 24' trailer will provide office space for NextEra personnel (**Appendix 9: 1041 Site Plan**). Laydown Yard 1 is authorized for temporary use under signature of the property owner's letter granting the Applicant authority to represent during the project permitting process. Laydown Yard 2 will be utilized under an option to purchase by the owner to the Applicant (**Appendix 3: Project Lease Agreements and Deed; Appendix 4: Authority to Represent Letters**).

The need for the Project was established primarily by CSU's Energy Vision renewable energy goals, which aims to produce 20% of energy generation from renewable energy sources by 2020, while maintaining a regional energy cost advantage. Approval of land use for a solar facility will satisfy multiple local, state, and federal statutes including Colorado's RES statute (Section 40-2-124, C.R.S.) which requires 30% of retail energy sales to be derived from renewable generation by 2020 from investor owned utilities and 10% for large municipal utilities. In addition, the Project will supply 35-MW of renewable energy to CSU, which will support their Energy Vision renewable energy goals, which aim to produce 20% of energy generation from renewable energy sources by 2020, while maintaining a regional energy cost advantage. Similarly, the Pikes Peak Area of Council Governments (PPACG) Regional Sustainability Project produced a plan titled "Looking to Our Future – Pikes Peak Region 2030" ("PPACG Regional Sustainability Plan") which outlines a renewable energy goal that by the year 2030, 50% of energy consumed in the region is renewable and/or sustainable, maximizing the amount of renewable energy produced in the region from a 2010 baseline.

El Paso County Planning and Community Development approvals associated with this 1041 application include a WSE-O (File No. 18-002) which was approved by the El Paso County Planning Commission on March 5, 2019 and unanimously by the Board of County Commissioners (BoCC) on April 9, 2019.

### **2.303(5)(c) Plans and Specifications of the Project in Sufficient Detail to Evaluate the Application Against the Applicable Review Criteria**

The Applicant submitted an interconnection request to Public Service Company of Colorado (PSCo) in November 2017 for the 35 MW Project. The combined Feasibility and System Impact Study was received on October 17, 2018. The Facilities Study agreement was received in late December, and the final large generator interconnection agreement (LGIA) is fully executed as of January 31, 2019 (**Appendix 8: Interconnect Agreement**).

The Project will encompass 377 acres, and will include the solar array, the collection line, two laydown yards, and the existing Golden West substation. The solar array will be located on approximately 272 acres owned by the Applicant and identified as parcel 1200000390. It is anticipated that the Project will use Jinko 390-395 W solar panels and 3.14 MVA Power Electronics inverters. The PV solar panels will be mounted on tracking systems that help minimize the angle between the solar panels and the sun, which maximizes solar energy capture and electric generation of the array. When fully extended in an upright position the panels would be no more than 14' from base elevation; when extended downward, the panels

would be a minimum of 2' from base elevation. Generated electricity will be delivered to up to 12 inverters located throughout the array that would convert the electricity from direct current to alternating current. An 8-foot tall chain link fence will be installed around the solar array for safety and security of the solar panel area. Collection lines from the inverters will converge at the northeast corner of the solar array; the collection lines will be buried underground and will run approximately one mile to the existing Golden West substation. Laydown Yard 2 will include three temporary construction trailers which will provide office space for Mortenson and NextEra on-site personnel, daily meeting spaces, conference areas, and medic offices to respond to personnel injuries during construction. No overnight employee housing will be located in the Project. Overnight security personnel will access the site during construction. A 48' x 12' trailer will provide space for safety and job site medics, a 60' x 36' trailer will provide office space for the contractor personnel and site orientation and training, and a 60' x 24' trailer will provide office space for NextEra personnel (**Appendix 9: 1041 Site Plan; Appendix 10: Approved WSE-O Plan**).

Substation modifications will consist of installation of a new feeder breaker and metering for the solar project and infrastructure to accommodate the breaker and metering. The new breaker will be installed at the end of the west medium voltage overhead bus and that overhead bus extended to that breaker. The modifications to the substation will not increase the height of any existing substation facilities. Substation modifications will not exceed existing substation facility heights of 35-feet. Two underground sets of feeder cables will enter the substation from the north via conduit and route to the new feeder breaker. In order to separately meter the solar power from the existing wind power, additional metering will need to be installed in both overhead medium voltage buses after all breakers. This will be done by replacing a short section of the existing buswork with high accuracy current measuring devices. Similar high accuracy metering will be included with the new breaker to measure the solar power only. Additional work will include installation of some new metering and control equipment in the existing control house and installation of underground communication cables. No new power transformers will be installed in the substation.

The following appendices are provided to support this 1041 application.

**Appendices**

1041 Application Form	1	2.303 (Items 1-23)
Certification of Deed Research and Notification to Mineral Owners	2	2.303 (Items 1-23)
Project Lease Agreements and Deed	3	2.303 (Items 1-23)
Authority to Represent Letters	4	2.303 (Items 1-23)
Vicinity Map	5	2.303 (Items 1-23)
CSU Service Area Map	6	2.303 (Items 1-23)
Power Purchase Agreement	7	2.303 (Items 1-23)
Interconnect Agreement	8	2.303 (Items 1-23)
1041 Site Plan	9	2.303 (Items 1-23)
Approved WSE-O Plan	10	2.303 (Items 1-23)
Noxious Weed Management Plan	11	2.303 (Items 1-23)
List of Adjacent Land Owners	12	2.303 (Items 1-23)
Zoning Map	13	2.303 (Items 1-23)
PPRBD Floodplain Correspondence	14	2.303 (Items 1-23)
Colorado Parks and Wildlife Correspondence	15	2.303 (Items 1-23)

Approved Jurisdictional Determination	16	2.303 (Items 1-23)
Public Lands Map	17	2.303 (Items 1-23)
Air Quality Management Plan	18	2.303 (Items 1-23)
Conceptual Drainage Report	19	2.303 (Items 1-23)
Sound Level Assessment and Noise Waiver Letters	20	2.303 (Items 1-23)
Wetlands, Waterbodies, and Threatened, Endangered and Species of Special Concern Report	21	2.303 (Items 1-23)
Operations & Maintenance plan	22	2.303 (Items 1-23)
Decommissioning Agreement and Statement	23	2.303 (Items 1-23)
Water Commitment Letter	24	2.303 (Items 1-23)
Cultural Resources Letter from SHPO and Intensive Cultural Resources Inventory	25	2.303 (Items 1-23)
Title Commitments	26	2.303 (Items 1-23)
Community Meeting Attendance Sheet	27	2.303 (Items 1-23)
Emergency Response Plan	28	2.303 (Items 1-23)
Wildland Fire and Hazard Mitigation Plan	29	2.303 (Items 1-23)
Fire Commitment Letter	30	2.303 (Items 1-23)
Visual Impact Analysis	31	2.303 (Items 1-23)
Determination of No FAA Notice Required	32	2.303 (Items 1-23)
Haul Route Plan	33	2.303 (Items 1-23)
Transportation Memorandum	34	2.303 (Items 1-23)
Road Condition Survey Statement	35	2.303 (Items 1-23)
Project Waivers	36	2.303 (Items 1-23)
Preliminary Geotechnical Engineering Report and Physical Characteristics Memo	37	2.303 (Items 1-23)
Summary of Project Lighting Memo and Lighting Plan	38	2.303 (Items 1-23)
Adjacent Property Owner Notification Letter and List of Landowners	39	2.303 (Items 1-23)
Phase I Environmental Site Assessment	40	2.303 (Items 1-23)
Soils Map	41	2.303 (Items 1-23)
I04I Affected Boundaries Map	42	2.303 (Items 1-23)
Regional Setting Map	43	5.201 (Items 1-11)
El Paso County WSE-O Location Map	44	5.201 (Items 1-11)
Electromagnetic Interference Report	45	5.201 (Items 1-11)

**2.303(5)(d) Description of Alternatives Considered**

The selection of the Project site is the result of a search for a suitable site for a new generation facility to provide renewable energy to CSU. CSU issued an RFP in January 2017 for 20 MW of renewable energy to support CSU in accomplishing their Energy Vision renewable energy goals, which aims to produce 20%

of energy generation from renewable energy sources by 2020 while maintaining a regional energy cost advantage. Cost is typically a major determining factor when selecting a project bid. NextEra developed four bids for the RFP which included the expansion of the existing Clear Springs Ranch (CSR) Solar Project, Golden West Wind II, the Williams Creek Solar Project, and the Grazing Yak Solar Project. CSU selected the Grazing Yak Solar Project for a number of reasons including the Project's high relative regional cost advantage and its low environmental impacts.

To develop a project that maintains a regional cost advantage and limits impacts, it is preferred to use existing infrastructure to the greatest extent possible. Of the multiple delivery options, the one that has the least impact is delivery into an existing substation. This avoids the impacts associated with new transmission lines required to connect to existing transmission lines. The current Project (preferred alternative) is the best location based on its proximity to an existing substation resulting in lower impacts, satisfaction of the need to produce renewable energy for CSU, and overall cost advantage which transfers directly to a regional cost advantage for CSU customers. In addition, the proposed Project location is situated adjacent to and overlaid with the existing Golden West wind WSE-O. Locating the Project adjacent to and overlaid with an existing WSE-O reduces the impacts to other, rural agriculture-zoned areas of the County.

The Williams Creek Solar Project, expansion of CSR Solar, and Golden West Wind II were not selected due to higher costs, or resulting in impacts greater than the Project at the time the evaluation was conducted. The Williams Creek Solar Project would require development and construction of additional facilities thereby exceeding the cost of the preferred Project and resulting in greater impacts to lands and residents. Expansion of CSR was not feasible because the current infrastructure would require a major upgrade to the Project substation and facilities to accommodate 20 MW, thereby exceeding the cost of the Project. The Golden West substation and Jackson Fuller substation have additional capacity and will not require major upgrades to accommodate up to 35 MW generated by the Project, resulting in a lower cost of energy to CSU. Generating renewable energy at a larger scale can reduce overall cost to the utility. The preferred Project's existing infrastructure with adequate substation capacity and the greater scale of energy production contributed to the overall lower cost when compared to Golden West Wind II, CSR Solar Expansion, and Williams Creek bids.

### **2.303(5)(e) Schedules for Designing, Permitting, Constructing and Operating the Project; Including the Estimated Project Life**

The development and construction schedules are sequenced to support a commercial operations date of December 2019. The Applicant commenced Project discussions with the County on February 7, 2018 for the early assistance meeting. The Project WSE-O was approved by the BoCC unanimously on April 9, 2019. It is anticipated that this 1041 application will be approved by the El Paso County Development Services Department (DSD) planning staff in late May 2019. The Site Development Plan (SDP) is currently under review by the county. It is anticipated that the SDP will be approved in June. Assuming timely approval of all permits and the SDP, construction will begin in June 2019 and will be completed by November 2019. The target for the commercial operations date is December 1, 2019. There is no phasing planned for construction; the Project would be constructed during one phase. The operational life of the Project is anticipated to last 25-years.

### **2.303(5)(f) Project Need and Alternatives Considered**

The need for the Project was established primarily by CSU's Energy Vision renewable energy goals, which aims to produce 20% of energy generation from renewable energy sources by 2020, while maintaining a regional energy cost advantage. Approval of land use for a solar facility will aid in satisfying multiple local,

state, and federal statutes including Colorado's RES statute (Section 40-2-124, C.R.S.) which requires 30% of retail energy sales to be derived from renewable generation by 2020 from investor owned utilities and 10% for large municipal utilities. In addition, the Project will supply 35-MW of renewable energy to CSU, which will support their Energy Vision renewable energy goals, which aim to produce 20% of energy generation from renewable energy sources by 2020, while maintaining a regional energy cost advantage. CSU's basis for issuance of the RFP for renewable energy is based on the current growth patterns of the Colorado Springs region. The University of Colorado – Colorado Springs (UCCS) Economic Forum releases a quarterly report<sup>1</sup> that details growth patterns of residential buildings in the Pikes Peak Region. The latest quarterly report from the UCCS Economic Forum identifies a continued growth and expansion of both single family and multi-family housing permits between the first quarters of 2016 and 2017 in the Pikes Peak region. The number of single-family home building permits issued in the Pikes Peak Region increased by 3%, while the number of multi-family home building permits issued in the Pikes Peak Region increased by 1,227%. In addition, the UCCS Economic Forum identified the percent of the population moving from a different state to El Paso County (7.1%), Colorado (4.1%), and the United States (2.3%)<sup>2</sup>. The higher percent of people moving to El Paso County likely contributes to the continued increase in building permits, which has resulted in additional power needs for the region.

The selection of the Project site is the result of a search for a suitable site for a new generation facility to provide renewable energy to CSU. CSU issued an RFP in January 2017 for 20 MW of renewable energy to support CSU in accomplishing their Energy Vision renewable energy goals, which aims to produce 20% of energy generation from renewable energy sources by 2020 while maintaining a regional energy cost advantage. Cost is typically a major determining factor when selecting a project bid. NextEra developed four bids for the RFP which included the expansion of the existing Clear Springs Ranch (CSR) Solar Project, Golden West Wind II, the Williams Creek Solar Project, and the Grazing Yak Solar Project. CSU selected the Grazing Yak Solar Project since the Project maintained the highest relative regional cost advantage and resulted in the lowest impacts.

To develop a project that maintains a regional cost advantage and limits impacts, it is preferred to use existing infrastructure to the greatest extent possible. Of the multiple delivery options, the one that has the least impact is delivery into an existing substation with available capacity. This avoids the impacts associated with new transmission lines required to connect to existing transmission lines. The current Project (preferred alternative) is the best location based on its proximity to an existing substation resulting in lower impacts, satisfaction of the need to produce renewable energy for CSU, and overall cost advantage which transfers directly to a regional cost advantage for CSU customers. In addition, the proposed Project location is situated adjacent to and overlaid with the existing Golden West wind WSE-O. Locating the Project adjacent to and overlaid with an existing WSE-O reduces the impacts to other, rural agriculture-zoned areas of the County.

At the time the evaluations were conducted, the Williams Creek Solar Project, expansion of CSR Solar, and Golden West Wind II were not selected due to higher costs or resulting in impacts greater than the Project. The Williams Creek Solar Project would require development and construction of additional

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<sup>1</sup> "Quarterly Economic Update, 1<sup>st</sup> Quarter, 2017 Data" University of Colorado – Colorado Springs, Economic Forum, May 2017.

<sup>2</sup> "The National, State, & Local Economies" University of Colorado – Colorado Springs, Economic Forum Presentation, October 4, 2018.

facilities thereby exceeding the cost of the preferred Project and resulting in greater impacts. Expansion of CSR was not feasible because the current infrastructure would require a major upgrade to the Project substation and facilities to accommodate 20 MW, thereby exceeding the cost of the Project. The Golden West substation and Jackson Fuller substation have additional capacity and will not require major upgrades to accommodate up to 35 MW generated by the Project, resulting in a lower cost of energy to CSU. Generating renewable energy at a larger scale can reduce overall cost to the utility. The preferred Project's existing infrastructure with adequate substation capacity and the greater scale of energy production contributed to the overall lower cost when compared to Golden West Wind II, CSR Solar Expansion, and Williams Creek bids.

### **2.303(5)(g) Conservation Techniques to be used During Construction and Operation of the Project:**

The Project would institute multiple conservation techniques during construction. Some of the techniques to be used include the following:

- Disturbance of vegetation would be limited to that which is necessary for Project construction and maintenance.
- Stormwater Management best management practices (BMPs) would be used to minimize stormwater related impacts during construction activities.
- Should construction begin during ground nesting season, a qualified biologist would conduct ground nesting bird clearance surveys prior to ground disturbance. Should the biologist observe ground nesting migratory birds, Colorado Parks and Wildlife (CPW) would be contacted to determine an appropriate spatial buffer which would be avoided until the nest fledged.
- Project construction BMPs will be in place for work within the existing non-jurisdictional unnamed stormwater swales leading to Horse Creek, including building a single road crossing along the east edge of the solar array.
- Project construction will trench across Horse Creek and will return the contours of the existing drainage and floodplain to their original condition.
- An 8-foot tall chain-link fence is proposed to enclose the solar array to prevent wildlife from jumping.

Conservation techniques to be employed during operation of the Project include:

- Non-native vegetation and noxious weeds will be managed on the Project as required for Project operation; management would follow methods described in the Project-specific Noxious Weed Management Plan (**Appendix I I: Noxious Weed Management Plan**).
- Revegetation methods will include broadcast seeding and protecting newly sown seeds from wind and water erosion with appropriate BMPs. The exact method of revegetation is dependent upon the time of year at which construction would start. As such, specific revegetation methods will be detailed during the Site Development Plan phase.

Additional information on specific BMPs to be used during construction will be documented in the Project Stormwater Management Plan (SWMP) and Spill Prevention, Control, and Countermeasure (SPCC) Plan that will be developed prior to construction and will be on site at all times.

### **2.303(5)(h) Description of Demands the Project Expects to meet and the Basis for Projections**

The Project will produce 35-MW of solar-generated power at full capacity, which will be provided to CSU as described in the executed PPA between the Applicant and the CSU (**Appendix 7: Power Purchase Agreement**). CSU is the single off-taker of the 35 MW of solar power that will be generated by the Project. The Applicant is providing 35 MW of solar-generated renewable power in response to the CSU RFP of 20 MW issued in December 2017. The anticipated operational life expectancy of the Project is 25 years. Over the life of the Project, power generated will support CSU in attaining their Energy Vision renewable energy goals, which aim to produce 20% of energy generation from renewable energy sources by 2020, while maintaining a regional energy cost advantage. CSU's basis for issuance of the RFP for renewable energy is based on the current growth patterns of the Colorado Springs region. The University of Colorado – Colorado Springs (UCCS) Economic Forum releases a quarterly report<sup>1</sup> that details growth patterns of residential buildings in the Pikes Peak Region. The latest quarterly report from the UCCS Economic Forum identifies a continued growth and expansion of both single family and multi-family housing permits between the first quarters of 2016 and 2017 in the Pikes Peak region. The number of single-family home building permits issued in the Pikes Peak Region increased by 3%, while the number of multi-family home building permits issued in the Pikes Peak Region increased by 1,227%. In addition, the UCCS Economic Forum identified the percent of the population moving from a different state to El Paso County (7.1%), Colorado (4.1%), and the United States (2.3%)<sup>2</sup>. The higher percent of people moving to El Paso County likely contributes to the continued increase in building permits, which has resulted in additional power needs for the region.

### **2.303(5)(i) List of Adjacent Property Owners**

A list of adjacent property owners is provided as **Appendix 12: List of Adjacent Land Owners**.

## **2.303(6) Information Describing the Project**

### **2.303(6)(a) Description of Property Rights Affected by the Project**

The Project will be constructed on private lands zoned A-35 in eastern, unincorporated El Paso County. The existing Golden West WSE-O is overlaid with the private lands abutting the majority of the Project (**Appendix 13: Zoning Map**). The Project collection line traverses the Golden West WSE-O and is overlaid again with the Grazing Yak approved WSE-O. The Project has secured Authority to Represent letters from all landowners whose properties intersect with the Project. The Applicant has the option to buy the land on which the solar array is located; the County clerk and recorder will assign a new parcel number and address to the approximately 272 acres on which the solar array is located. The Applicant has secured lease agreements from landowners whose properties are crossed by the underground collection line (**Appendix 3: Project Lease Agreements and Deed**). Temporary laydown yards located on the Balsick and Golden West Power Partners, LLC parcels are authorized under signature of the authority to represent those landowners in all matters relating to Project permitting and approval, and to utilize the property during the Project development process (**Appendix 4: Authority to Represent Letters**). No other property rights are anticipated to be impacted by construction of the Project.

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<sup>1</sup> “Quarterly Economic Update, 1<sup>st</sup> Quarter, 2017 Data” University of Colorado – Colorado Springs, Economic Forum, May 2017.

<sup>2</sup> “The National, State, & Local Economies” University of Colorado – Colorado Springs, Economic Forum Presentation, October 4, 2018.

**2.303(6)(b) Federal, State and Local Permits and Approvals**

The Project would obtain and comply with all approvals required by County, federal and state regulatory authorities for the construction and operation of a solar facility. No federal permits have been identified at the development stage of the Project. Installation of the Project collection lines will require trenching across the Horse Creek Zone-A floodplain. The Applicant has obtained correspondence with the Pikes Peak Regional Building Department stating that no floodplain permit, or documentation will be required since trenching will not result in alteration of the floodplain (**Appendix 14: PPRBD Floodplain Correspondence**). Reseeding and contouring of the floodplain will occur following the completion of trenching; elevations of the floodplain contours will be returned to their original condition. Permits that will be required for the Project are included in **Table I**, below.

**Table I. Grazing Yak Solar Project Permits**

<b>Agency</b>	<b>Permit</b>	<b>Notes</b>
<b>State</b>		
Colorado Department of Public Health and Environment (CDPHE)	Air Pollutant Emission Notice and Application for Construction Permit	Permit would be obtained prior to Project construction.
CDPHE	Stormwater Discharge Permit	Permit would be obtained prior to Project construction.
<b>County</b>		
County – Planning and Community Development Department	WSE-O Approval	The WSE-O application for the Project was approved by the BoCC on April 9, 2019.
County – Planning and Community Development Department	I04I Areas and Activities of State Interest Approval	The I04I for the Project is currently under review and is anticipated to be administratively approved by DSD planning staff.
County – Planning and Community Development Department	Site Development Plan	Administrative approval of Site Development Plans will be required for the Project.
County – Public Works	Construction Permit	Permit will be obtained prior to Project construction.
County – Public Works	Erosion and Stormwater Quality Control Permit	Permit would be obtained prior to Project construction.
Pikes Peak Regional Building Department (PPRBD)	Building Permit	Permit would be obtained prior to Project construction, if applicable.

**2.303(6)(c) Copies of Relevant Federal and State Consultation Correspondence Prepared for the Project; a Description of all Mitigation Required by Federal, State and Local Authorities; and Copies of and Draft or Final Environmental Assessment or Impact Statements Required for the Project**

The Applicant has included in this application several due diligence studies to identify the potential for Project impacts that would require state and federal permits. The Applicant consulted with the State Historic Preservation Office (SHPO) on potential effects to resources potentially eligible for the state historic register resulting from development of the Project. SHPO determined that no such resources are

located in the proposed Project (**Appendix 25: Cultural Resources Letter from SHPO and Intensive Cultural Resources Inventory**). In addition, the Applicant contracted AECOM to prepare an Intensive Cultural Resources Inventory. The report indicated that no resources were considered eligible for the National Historic Register, and that no further work was recommended (**Appendix 25: Cultural Resources Letter from SHPO and Intensive Cultural Resources Inventory**). AECOM did identify that the erosion control furrows and dam (stock pond) located in the Project could be considered as contributing to the rural landscape. However, similar erosion control furrows abound in the area. Grading of the erosion control furrows in the Project would not collectively impact these regional erosional control features. The dam will be avoided during construction.

Installation of the Project collection lines will require trenching across the Horse Creek Zone-A floodplain. The Applicant has obtained correspondence with the Pikes Peak Regional Building Department stating that no floodplain permit, or documentation will be required since trenching will not result in alteration of the floodplain (**Appendix 14: PPRBD Floodplain Correspondence**). Reseeding and contouring of the floodplain will occur following the completion of trenching; elevations of the floodplain contours will be returned to their original condition.

CORE conducted a desktop review and natural resources survey to identify the potential for the presence of state or federally listed threatened and endangered species (TES) and state species of concern (SC), and potential waters of the U.S. (WOUS) in the solar array and the collection line (Study Area). The desktop review and natural resources surveys indicated that no federally or state listed species, or their associated habitat, have the potential to occur or were observed on the Project. Swift fox (*Vulpes velox*) has the potential to den in the Project; however, no swift fox or dens were observed during the natural resources survey.

CPW was consulted to issue Project-specific recommendations. The Applicant received those Project specific recommendations on November 30, 2018 and has agreed to comply with the CPW recommendations identified in the Project recommendation letter. The Applicant responded to CPW on January 2, 2019 describing the ways in which the Project will adhere to the CPW recommendations to avoid and minimize impacts to wildlife that may utilize the Project and their associated habitat (**Appendix 15: Colorado Parks and Wildlife Correspondence**).

The U.S. Army Corps of Engineers (USACE) provided an approved Jurisdictional Determination (JD) for the Project on November 2, 2018. The approved JD indicated that no jurisdictional water features are located on the Project (**Appendix 16: Approved Jurisdictional Determination**).

The Applicant understands that the County Environmental Services Division has requested documentation from the U.S. Fish and Wildlife Service (USFWS) that the Project will not impact Preble's Meadow Jumping Mouse (PMJM; *Zapus hudsonius prebleii*). CORE queried the USFWS's Information and Planning for Conservation (IPaC) database to identify the likelihood for the potential presence of threatened and endangered species, or their associated habitat. The query did not identify PMJM nor any associated habitat. CPW maintains a Species Activity Mapping (SAM) database that characterizes the overall range of PMJM in Colorado. The Project is located outside of the overall range of PMJM in Colorado. The site visit to conduct a natural resources survey on August 23, 2018 indicated that no suitable habitat for the PMJM is present in or in the vicinity of the Project. Therefore, the likelihood for the potential presence of Preble's meadow jumping mouse (PMJM) can be characterized as not possible and was not discussed in the report. CORE discussed the request for documentation relating to the PMJM with EPC Environmental

Services Division on January 8, 2019. EPC Environmental Services Division agreed to amend the comment to exclude the request for documentation from the USFWS related to PMJM.

## **2.303(7) Land Use**

### **2.303(7)(a) Project Map Detailing Current Land Use and Zoning, Including Adjacent Lands**

The Project is zoned A-35 (Agricultural) and is surrounded by parcels assigned the same zoning (**Appendix 10: Approved WSE-O Plan**). The Golden West Wind WSE-O bounds the Project to the north, south, and west. Golden West Wind Partners, LLC, a subsidiary of NextEra, is the owner and operator of Golden West. Land use surrounding the Project consists of rangeland, some homesteads, and a wind energy project.

The submittal of this 1041 application request would allow for the siting of a solar generation facility within the parcels zoned A-35 within the approved WSE-O boundary. Since a solar facility is considered an activity of state interest, this 1041 Permit application is being submitted as part of the project land use permitting process.

### **2.303(7)(b) Affected Public Land Boundaries and Impacts**

The Project is located on private lands that are owned or leased by the Project. The solar array is situated on approximately 272 acres within a parcel owned by the Applicant (1200000390). The Applicant was deeded the parcel on March 1, 2019 (**Appendix 4: Project Lease Agreements and Deed**). An address was issued for the solar array, 31275 Washington Road. The Applicant will lease the lands on which the collection line easement traverses for the life of the Project. No public lands are located within or adjacent to the Project, excepting the county Right-of-Way (**Appendix 17: Public Lands Map**).

### **2.303(7)(c) Specify Whether and how the Proposed Project Conforms to the El Paso County Master Plan**

The activities associated with the Project are compatible with the current County Master Plan (Master Plan) which consists of the County Policy Plan (CPP), small area plans (SAPs), the Parks Master Plan, the Master Plan for Mineral Extraction, drainage basin planning studies and the major transportation corridors plan. The Master Plan guides land use in the County. The Master Plan has been reviewed as part of this process and specific component plans under the Master Plan have been identified and reviewed further as they are impacted by the location and nature of the Project, including the CPP. The Project is located in an area of the County that is proposed to be included in the Eastern County SAP. At present, there is no Eastern County SAP issued from the County Planning and Community Development Department. The following is a summary of key elements of the CPP with a detailed discussion of those elements that are relevant to the Project. Specific sections, goals, and policies from the CPP are outlined below.

The following Sections 1.0 through 13.0 reflect components of Chapter I of the CPP and describe how the Project would conform to those components.

## **Conformance to Goals and Policies of the County Policy Plan (CPP)**

### **CPP 1.0 Small Area Plans**

The County has developed SAPs to provide a framework for development within areas of the County that have similar land use patterns. The Project is situated within the portion of the County that is

proposed to be included in the Eastern County SAP. At present, there are no planning districts or goals and policies identified for the proposed Eastern County SAP.

## **CPP 2.0 Natural Systems**

Goal 2.1: Preserve, enhance and restore the environment to acceptable health standards.

Solar energy generation is a clean, renewable energy that will not contribute to the pollution in the area. Construction and operation activities will be planned to minimize and mitigate negative effects to the environment.

### ***Air and Water Quality***

*Policy 2.1.1 Meet the Federal Clean Air and Clean Water Acts and its amendments.*

The Project will acquire the applicable construction permits, adhering to federal air and water regulations prior to construction. The solar generation facility will not require operating air or water permits.

The Project would not result in adverse impacts to air quality. Some particulate emissions from dust generation would result from the operation of heavy equipment during construction. However, these emissions would be temporary and limited to active areas of construction. Best Management Practices (BMPs) would be implemented during construction to mitigate dust emissions. Specifically, water trucks will be utilized to spray disturbed areas to minimize dust emissions (**Appendix 18: Air Quality Management Plan**).

*Policy 2.1.9 Encourage approaches to land use that promote innovative techniques to protect water quality and encourage mitigation to reduce pollution from non-point sources such as run-off from roads, parking lots and lawn chemicals.*

The Applicant contracted CORE to prepare a Conceptual Drainage Report for the initial submittal of the Project WSE-O application (**Appendix 19: Conceptual Drainage Report**). The report identified major and minor drainage basins in the Project. The Project will not impact historic flow rates of major or minor drainage basins within the Project. Most internal access roads will consist of 12-foot wide native compacted soils to 12-inches in depth. Only the main access road to the solar array will be 20-foot wide and require gravel. Stormwater detention facilities will be installed to maintain historic flows associated with stormwater runoff resulting from the gravel road locations within the solar array. The Storm Water Management Plan (SWMP), Grading Erosion and Sediment Control (GESCC) plan, and SPCC plan will be completed prior to construction and will include both temporary and permanent BMPs to prevent erosion and sedimentation to drainage basins within the solar array or collection line corridor resulting from grading. The SWMP and GESCC will be submitted as part of the application for a County Erosion and Storm Water Quality Control Permit (ESQCP) prior to construction.

### **Noise Control**

*Policy 2.1.7 Encourage the adoption of noise level standards which limit or mitigate adverse impacts to surrounding land-owners.*

*Policy 2.1.8 Carefully consider all proposed land uses adjacent to interstate highways, railroads, military training areas, and in designated flight zones to protect them from associated disruptive noise levels.*

The Applicant retained Epsilon to perform a Project noise study (**Appendix 20: Sound Level Assessment and Noise Waiver Letters**). Predicted decibel levels of construction noise were modeled at the solar array

boundary, and at receptors within a one-mile radius of the solar array. The Sound Level Assessment assessed predictable construction and operations noise of the Project and determined that during the construction phase, noise may exceed decibel levels listed in the County Ordinance Concerning Noise Levels in Unincorporated El Paso County (Ordinance No. 02-1) at the solar array property boundary when activities are close to the edge of the solar array property boundary. Noise levels would meet County Ordinance thresholds at all adjacent residences (receptors). Construction activities would typically be limited to normal working hours between 7:00 am and 6:00 pm, Monday through Saturday. Work outside of these hours would be limited and would be restricted away from the solar array boundary to meet permissible construction noise levels outlined in the ordinance. The Applicant is in the process of obtaining waivers from adjacent landowners that state their support for the Project, regardless of the potential for some construction noise exceeding the County Ordinance thresholds at the boundary of the solar array.

Noise produced during Project operations will be negligible to sound receptors within the one-mile radius of the solar array. Solar panels are silent; however, inverters do emit sound (**Appendix 20: Sound Level Assessment and Noise Waiver Letters**). The sound emitted from an inverter has a similar intensity as an air conditioner and the sound dissipates significantly and quickly with distance. The noise study determined that no noise will be received by any sound receptors (occupied residential or occupied work space) within a one-mile radius of the solar array.

### **Wildlife and Vegetation Impacts**

Goal 2.2 Protect the flora and fauna found in the County's five life zones and transitional communities.

*Policy 2.1.2 Encourage local environmental regulations governing protection of natural resources to be consistent with state and federal regulations*

*Policy 2.2.1. Encourage a coordinated and systematic planning approach to identify, locate and protect critical areas of wildlife habitat from all five life zones and transitional communities.*

*Policy 2.2.3 Evaluate the impact from proposed developments on watersheds and wildlife habitat with appropriate governmental agencies early in the development process.*

*Policy 2.2.4 Provide incentives to encourage development to incorporate sensitive planning that ensures the protection of watersheds and wildlife habitat*

*Policy 2.2.7 Comply with requirements of the federal Endangered Species Act*

*Policy 2.2.8 Encourage the protection and preservation of state listed endangered and threatened species, species of special concern, and species with immediate conservation needs*

The Applicant has conducted multiple environmental studies. The Applicant contracted CORE to complete a natural resources survey to assess habitat and wildlife species that may occur on the Project area (**Appendix 21: Wetlands, Waterbodies, and Threatened, Endangered and Species of Special Concern Report**). CORE conducted a desktop review and natural resources survey to identify the potential for the presence of state or federally listed threatened and endangered species (TES) and state species of concern (SC), and potential WOUS in the solar array and the collection line (Study Area). The desktop review and natural resources surveys indicated that no federally or state listed species, or their associated habitat, have the potential to occur or were observed on the Project. Swift fox (*Vulpes velox*) has the potential to den in the Project; however, no swift fox or dens were observed during the natural resources survey (**Appendix 21: Wetlands, Waterbodies, and Threatened, Endangered and Species of Special Concern Report**). To avoid potential impacts to swift fox, the Applicant will conduct swift fox surveys during the pupping season. The Applicant recognizes that general wildlife, including big game, do have potential to occur in the solar array area.

CORE received an approved JD from the USACE for the Project on November 2, 2018. The approved JD indicated that no jurisdictional water features are located on the Project (**Appendix 16: Approved Jurisdictional Determination**).

CPW was consulted to issue Project-specific recommendations. The Applicant received those Project specific recommendations on November 30, 2018 and has agreed to comply with the CPW recommendations identified in the Project recommendation letter. The Applicant responded to CPW on January 2, 2019 describing the ways in which the Project will adhere to the CPW recommendations to avoid and minimize impacts to wildlife that may utilize the Project and their associated habitat (**Appendix 15: Colorado Parks and Wildlife Correspondence**).

According to USGS National Land Cover Database, the primary land cover type in the Project area is grassland/herbaceous. Herbaceous plants observed in the Study Area were dominated by buffalo grass (*Bouteloua gracilis*), arctic sage (*Artemisia frigida*), meadow barley (*Hordeum brachyantherum*), needle and thread (*Hesperotipa comata*), sulphur buckwheat (*Polygonum umbellatum*), and blazing star (*Liatris squarrosa*). Vegetation that will be temporarily impacted by construction will be reseeded following construction with a native seed mix. Reseeded areas will be protected from erosion with appropriate BMPs. Revegetation methods will likely include broadcast seeding and/or drill seeding a mix of native grasses. It is anticipated that weed stubble, following noxious weed treatment and mowing of the site, will secure seed in the topsoil. The exact method of revegetation is dependent upon the time of year at which construction would start. As such, specific revegetation methods will be detailed during the Site Development Plan phase.

#### **Noxious Weed Control and Revegetation**

The Applicant contracted CORE to prepare a Noxious Weed Management Plan (**Appendix 11: Noxious Weed Management Plan**). Pre-construction surveys and treatment will conform to applicable County requirements for noxious weed control and management. Revegetation of the site, where possible, will occur following construction according to procedures noted above. The Project will be monitored and treated for noxious weeds as needed and as determined by the Applicant following commercial operations date.

#### **Wetlands**

The potential for the presence of WOUS was described in the Wetlands, Waterbodies, and Threatened, Endangered, and Species of Special Concern Report (**Appendix 21: Wetlands, Waterbodies, and Threatened, Endangered and Species of Special Concern Report**). CORE performed a desktop review and natural resources survey to identify the potential for the presence of WOUS. The desktop review indicated that an unnamed tributary to Horse Creek drains the solar array in an easterly direction, and a stock pond is located along the tributary in the central portion of the solar array. Horse Creek traverses the central portion of the collection line corridor. A FEMA Zone A floodplain is located across the main channel of Horse Creek traversing the collection line corridor. CORE performed a natural resources survey on August 23, 2018. The unnamed tributary presented as an upland swale with no defined bed and bank. The stock pond was dammed with no apparent outlet to downstream. The dam will not be impacted during construction of the Project. It is CORE's opinion that no potentially jurisdictional water features are located on the solar array or collection line corridor. CORE received an approved JD from the USACE for the Project on November 2, 2018. The approved JD indicated that no jurisdictional water features are located on the Project (**Appendix 16: Approved Jurisdictional Determination**).

### **Hazardous Materials**

Construction, operation and maintenance activities will comply with applicable local, state and federal laws and regulations regarding the use of hazardous substances. Fuel will be stored within Laydown Yard 2 during construction (**Appendix 9: 1041 Site Plan**). Diesel fuel (1,500 gallons) and unleaded gas fuel (500 gallons) will be contained within double-walled tanks with secondary containment in accordance with OSHA outdoor portable tank storage requirements (1926.152(c)(4) (**Appendix 28: Emergency Response Plan**). A SPCC Plan will be provided prior to storing fuels on site. Enclosed containment would be provided for trash. Construction waste, including solid waste, petroleum products or other potentially hazardous materials may be transported to a licensed recycling or disposal facility authorized to accept such materials. Spill prevention materials will be maintained on site as required. Hazardous materials related to construction will be removed from the Laydown yard 2 at the completion of construction. Operational personnel will follow guidelines posted in the Project Operations & Maintenance Plan (**Appendix 22: Operations & Maintenance Plan**). The Applicant has prepared a Decommissioning Agreement to ensure Project components are disposed of properly at the termination of Project operations (**Appendix 23: Decommissioning Agreement and Statement**).

### **CPP 3.0 Water Resources**

Goal 3.1 Protect and enhance the quality, quantity and dependability of water supplies.

*Policy 3.1.7 Carefully analyze each new development's proposed use of water.*

*Policy 3.3.2 Consider the water requirements for natural areas adjacent to proposed developments*

*Policy 3.3.4 Implement appropriate measures to protect and/or mitigate effects of point and non-point sources of pollution to surface water*

*Policy 3.3.6 Evaluate the consequences to surface water from new development including run off of natural soils, as well as chemical compounds that may result from the proposed uses including pesticides, herbicides and hydrocarbons*

The Project will have negligible impacts on water quantity. Construction of the Project will require minimal water use; water will be used for dust control and mitigation during the movement and use of heavy equipment. Water will be purchased and hauled from a local water supplier by a water truck and will be applied to the ground during earth disturbing activities to minimize the production of dust. This will require approximately four million gallons for the term of construction. The Applicant has procured a Water Commitment Letter from a local water supplier (**Appendix 24: Water Commitment Letter**).

No washing of panels will occur throughout the lifetime of the Project. The Applicant conducted a cost-benefit analysis of panel washing versus the result of not washing panels; i.e., a decrease in revenue from a decrease in production of solar energy. The Applicant determined that the loss in revenue due to decreased production is not offset by the cost of water to wash the panels

The Applicant has reviewed the Pikes Peak Area Council of Governments (PPACG) 208 Plan and determined that the Project will cause minimal to no impact to ground or surface water surrounding the Project. The Applicant will follow BMPs that will prevent erosion and sedimentation to the Horse Creek watershed. The Project will not discharge materials into Horse Creek or the associated drainage in the solar array. The proposed locations of solar arrays and facilities will avoid Horse Creek. Installation of the collection lines will require trenching across Horse Creek resulting in temporary impacts to the existing contours of the drainage, but contours of Horse Creek will be returned to their pre-construction condition and elevation at the completion of the collection line installation and no floodplain permit will

be required (**Appendix 14: PPRBD Floodplain Correspondence**). GESC, SWMP, and SPCC plans will be developed to manage on-site pollutants during construction and as needed for operations.

#### **CPP 4.0 Historic Resources**

Goal 4.1 Encourage preservation and enhancement of historical resources.

The Applicant has consulted with the State Historic Preservation Office (SHPO) on potential effects to resources potentially eligible for the state historic register resulting from development of the Project. SHPO determined that no resources are located in the solar array or underground collection line corridor (**Appendix 25: Cultural Resources Letter from SHPO and Intensive Cultural Resources Inventory**). In addition, the Applicant contracted AECOM to prepare an Intensive Cultural Resources Inventory. The report indicated that no resources were considered eligible for the Nation Historic Register, and that no further work was recommended (**Appendix 25: Cultural Resources Letter from SHPO and Intensive Cultural Resources Inventory**). AECOM did identify that the erosion control furrows and dam (stock pond) located in the Project could be considered as contributing to the rural landscape. However, similar erosion control furrows abound in the area. Grading of the erosion control furrows in the Project would not collectively impact these regional erosional control features. The dam will be avoided during construction.

#### **CPP 5.0 Economic Development**

Goal 5.1 *Maintain a land use environment which encourages quality economic development that is compatible with surrounding land uses.*

The Project may benefit local businesses in the County during Project construction since approximately 100 to 150 construction jobs will be created. Construction of the Project could positively impact short-term regional growth in the County. Population growth and development in the County are likely to continue regardless of whether the Project is constructed.

The Project offers community economic development with the expectation of approximately \$190,000 of sales tax during construction going towards the State of Colorado, El Paso County, and Pikes Peak Transportation Authority. Approximately \$5 Million of property tax over the life of the Project will go to El Paso County for general use, El Paso County Road and Bridge, Calhan school district, Calhan Fire Protection, and Pikes Peak Library. The production of additional solar energy to the grid provides a diversified energy source for CSU to support their Energy Vision renewable energy goals, which aim to produce 20% of energy generation from renewable energy sources by 2020, while maintaining a regional energy cost advantage.

#### **CPP 6.0 Growth and Land Use**

Goal 6.1.b *Support growth and development in the unincorporated County in a manner which reasonably limits long term public costs, provides for the development of supporting infrastructure, preserves environmental quality, provides economic opportunities, and otherwise enhances the quality of life.*

The Project may benefit local businesses in the County during Project construction since approximately 100 to 150 construction jobs will be created. Construction of the Project could positively impact short-term regional growth in the County. Population growth and development in the County are anticipated to continue regardless of whether the Project is constructed.

The Project would be located solely within properties leased or owned by the Applicant (**Appendix 3: Project Lease Agreements and Deed**; **Appendix 26: Title Commitments**). Grazing Yak, LLC has purchased and was deeded the 272 acres on which the solar array is proposed on March 1, 2019. Development and construction of the Project would not negatively impact land use types on adjoining parcels; i.e., adjoining parcels; i.e., adjoining parcels are zoned A-35 and are used for rangeland. The Project facilities will maintain a 25-foot setback from the property line per the County Land Use Code Chapter 5: Use and Dimensional Standards Table 5-4. The residence to the north of the solar array will be separated from the Project parcel with an area of approximately 46 acres following approval of the Project. In addition to rangeland surrounding the Project, there is the existing Golden West Wind Energy Project to the north, south, and west. The Project collection line corridor will overlay the Golden West WSE-O to the north. Golden West Power Partners, LLC, a subsidiary of the NextEra, is the owner and operator of Golden West. The Project would be owned and operated by Grazing Yak Solar, LLC, also a subsidiary of NextEra. Approving the solar project immediately adjacent to the existing wind project would prevent additional agricultural lands disturbance in other parts of the unincorporated portion of the County, and would complement the existing approved WSE-O. The Project has been sited and designed to reduce impacts to the environment and existing infrastructure.

The Project will have little impact on regional growth. Regional growth in the areas served by the Project is projected to occur regardless of whether the Project is constructed. Once operational, the Project will provide renewable solar energy to support growth and development in an environmentally sensitive way.

*Policy 6.1.3: Encourage new development which is contiguous and compatible with previously developed areas in terms of factors such as density, land use and access.*

The proposed use is contiguous and compatible with the existing land uses surrounding the Project. Land use types surrounding the Project include rangeland with some scattered residences. The residence to the north of the solar array will include a 46-acre parcel from the Project area parcel. The Project is bound to the north, south, and west by the Golden West Wind Energy Project. Approval of the Grazing Yak Solar Project will be contiguous with the Golden West WSE-O and would complement that approved use since both Projects provide renewable sources of energy that support the Colorado RES, as well as the CSU Energy Vision renewable energy goals.

*Policy 6.1.6: Direct development toward areas where the necessary urban-level supporting facilities and services are available or will be developed concurrently.*

The Project does not require urban-level supporting facilities and services. Constructing the Project in this agricultural zone will preclude development in this area. Solar energy generated by the Project will be transferred via underground collection lines to the existing Golden West substation. From the Golden West substation, energy will travel via the Golden West 230 kV transmission line to the existing Jackson-Fuller substation. No new overhead lines or substation will be constructed to support the Project.

*Policy 6.1.8: Encourage incorporating buffers or transitions between areas of varying use or density where possible.*

Proposed setbacks are equal to or greater than the required setbacks established by the underlying zoning (A-35; **Appendix 13: Zoning Map**). The residence to the north of the solar array will remain on an approximately 46-acre parcel that will incorporate the setbacks established by the zoning ordinances as set forth in Chapter 5 of the County LDC. The Project facilities are setback from parcel boundaries to

the north, south, east, and west by 25-feet at a minimum. The Applicant held a community meeting on September 18, 2018 to address any concerns of landowners in the vicinity of the Project. The Applicant invited members of the County Planning & Community Development Department. Eleven (11) community members attended the meeting to ask questions about the Project (**Appendix 27: Community Meeting Attendance Sheet**).

*Policy 6.1.10: Ensure that new development will not create a disproportionately high demand on public services and facilities by virtue of its location, design or timing.*

Once operational, the Project will be an unmanned facility. Due to the limited required maintenance and remote electronic monitoring of the facility, the proposed use would not affect the existing transportation network, nor create a high demand on public services or facilities. The Applicant has developed an Emergency Response Plan (**Appendix 28: Emergency Response Plan**) to respond to natural hazards including fire. The Project will follow the emergency response plan in place for Golden West. The risk of fire on the site is minimal since mowing of potential wild fire fuel sources would occur during the growing season. Nonetheless, the Applicant has developed a Wildland Fire and Hazard Mitigation Plan (**Appendix 29: Wildland Fire and Hazard Mitigation Plan**). The Project is located in a low fire hazard zone within the County as it is non-forested. Once operational, the Project will add to the electric energy supply to provide public services to others that obtain energy from CSU. In addition, the Project has obtained a fire commitment letter from the Calhan Fire District to service the Project in case of emergency (**Appendix 30: Fire Commitment Letter**).

*Policy 6.1.11: Plan and implement land development so that it will be functionally and aesthetically integrated within the context of adjoining properties and uses.*

The solar array will integrate aesthetically with the surrounding Golden West Project. The Applicant contracted CORE to complete a visual impact analysis to determine what can be seen once the Project is constructed (**Appendix 31: Visual Impact Analysis**). The map containing the viewshed model identifies that the project can be seen by areas immediately adjacent to the solar array and from the north and east of the solar array. Areas to the west and south over a half mile away cannot view the solar array due to the rolling topography. As depicted in the photo simulations, the solar arrays will be visible from Washington Road, and minimally visible from Funk Road and Judge Orr Road. Therefore, the solar arrays will not significantly impact the viewshed in the surrounding area. Also, given the existing landscape of the wind turbines, the solar panels are integrated within the context of adjoining properties and uses. As part of the visual impact analysis, CORE completed a glare analysis using the ForgeSolar GlareGauge analysis tool. Solar panel technology has advanced to reduce glare in order to minimize impacts to migratory birds and wildlife, overhead aircraft, and local traffic. The glare analysis conducted for the Project determined that the solar arrays will not produce significant glare (**Appendix 31: Visual Impact Analysis**), and therefore will have minimal impacts to migratory birds and wildlife, overhead aircraft, or local traffic.

The Applicant held a community meeting on September 18, 2018 and invited members of the County Planning & Community Development Department (**Appendix 27: Community Meeting Attendance Sheet**). No visual impact concerns were raised at that time. The residence located 500-feet north of the solar array is owned by the landowner that deeded the solar array parcel to the Applicant and is in full support of the Project, as evidenced by the sale, and by her signature on a letter granting authority to represent Henriatte Long (Long parcel owner) as the agent in all matters pertaining to the Project county permitting, and otherwise utilize the property with respect to all Project permits (**Appendix 4: Authority to Represent Letters**). The solar array is visible from the Pachak residence (1200000388) that is located immediately

north of the Long parcel. Pachak has also signed a letter granting the Applicant the authority to represent Pachak during the Project permitting and approval process and is in full support of the Project (**Appendix 4: Authority to Represent Letters**). No visual concern comments were raised by Long or Pachak. No other letters of complaints were received from the public/adjacent property owner.

*Policy 6.1.16: Allow for new and innovative concepts in land use design and planning if it can be demonstrated that off-site impacts will not be increased, and the health, safety and welfare of property owners and residents will be protected.*

Utilization of the Project site for generating electricity from renewable energy rather than fossil fuels offers significant public health benefits. Solar generated energy has no emissions and requires essentially no water to operate and thus does not pollute water resources or strain local water supplies. Solar development of the Project site would be an innovative use of the land that would not adversely impact adjacent and surrounding residents and property owners and would be protective of human health and the environment.

Goal 6.2 Protect and Enhance Existing and Developing Neighborhoods.

*Policy 6.2.1: Fully consider the potential impact of proposed zone changes and development on the integrity of existing neighborhoods.*

The Project is sited adjacent to the existing Golden West WSE-O on parcels zoned A-35. There are few existing residences in the vicinity of the Project; the Project would maintain a minimum setback of 500 feet from all neighboring residences, including the residence located immediate north of the solar array. The Project would not negatively impact the integrity of the existing neighborhoods since land use is largely rangeland, with a few Rural Residential (RR-5) parcels in the vicinity. The Project would complement the existing Golden West and would minimize impacts to other unincorporated, agriculture-zoned portions of the County.

*Policy 6.2.10: Utilize buffer zones to provide mutually compatible transitions between neighborhoods and adjoining development with differing uses or densities.*

The Project area is sited a minimum of 500 feet from adjacent and nearby residences, which includes one residence 500 feet north of solar array boundary. In addition, the proposed Project will be contiguous with adjoining land uses since Golden West bounds the Project to the north, south, and west.

*Policy 6.6.6: Consider the development of cooperative building, zoning and infrastructure standards in areas that interface with municipalities and military properties.*

The proposed Project is located adjacent to rangeland zoned A-35. In addition, the Project is surrounded by the existing Golden West. The Project would be consistent and contiguous with the existing Golden West and does not interface with any local municipalities. The Project does not interface with military properties. A screening was conducted to determine if Project facilities required notification to the Federal Aviation Administration (FAA) due to hazards of tall structures sited near airports or frequencies emitted. The Applicant used the FAA Notice Criteria Tool to determine requirements for filing with the FAA for the proposed Project facilities. The FAA Notice Criteria Tool determined that no notice to the FAA would be required since Project facilities do not exceed the height thresholds for FAA notification (**Appendix 32: Determination of No FAA Notice Required**).

### **CPP 7.0 Special and Unique Land Uses**

The purpose of this section of this regulation is to address some of the land uses which are ancillary to traditional residential, commercial, office, industrial and agricultural categories. Examples of these special uses would include waste facilities, transmission facilities, recreational facilities, and mining facilities. Since solar facilities were not originally included in this list of special and unique land uses, the application process was created to address renewable energy use, including solar facilities and ancillary facilities. Nonetheless, some goals and policies in this section apply to the development of a solar facility.

*Policy 7.5.1: Encourage the multiple uses of utility sites and corridors where feasible and appropriate.*

Solar energy generated by this Project will interconnect with the existing Golden West substation, where it will be transferred via the existing Golden West transmission line to the Jackson-Fuller substation. In addition, the northern portion of the Project collection line corridor, running approximately one mile north from the northeast corner of the Project area, will be sited immediately east and adjacent to the Golden West collection line corridor. In addition, the Project is sited in a location that is bound by Golden West to the north, south, and west (**Appendix 13: Zoning Map**).

### **CPP 8.0 Parks, Trails, and Open Space**

The Project is located on rangeland zoned A-35. Parcels zoned A-35 abut the Project on all sides. The adjacent properties are privately owned and do not provide parks, trails, or open space for any County residents. As such, the Project would not impact any existing County parks, trails, or open spaces and fully conforms to the goals and policies within this section of the CPP.

### **CPP 9.0 Transportation**

The Project is not anticipated to impact local traffic patterns over the long term; traffic resulting from construction would be temporary and would include the delivery of solar panels and associated components that would be delivered to the site via flat-bed trucks. Approximate staging area locations for incoming equipment and materials are depicted in the approved WSE-O Plan (**Appendix 10: Approved WSE-O Plan**). The staging areas will be used temporarily during construction and returned to pre-construction conditions, utilizing native seed mix to revegetate the disturbed areas. Temporary staging areas will consist of Laydown Yard 1 and Laydown Yard 2. Laydown Yard 2 will include three construction trailers that will provide a parking area for all contractors and site personnel during construction (**Appendix 9: 1041 Site Plan**). No overnight employee housing will be located in the Project. Overnight security personnel will access the site during construction.

Haul routes to the Project entrance would come from the north via North Calhan Highway to Washington, or from the south via State Highway 94 to Calhan Highway and Judge Orr Road (**Appendix 33: Haul Route Plan**). Haul routes are provided on the haul route plan that would be used to access a laydown area proposed on the parcel containing the existing Golden West substation and O&M building on Funk Road and transport supplies to the solar array via either McQueen or Currier Road (**Appendix 33: Haul Route Plan**).

The Applicant retained Sustainable Traffic Solutions to assess traffic on the haul routes leading to the Project (**Appendix 34: Transportation Memorandum**). The study has assessed the main haul routes from US Highways 24 and 94 to Calhan Highway leading to the solar array. The traffic study determined that Project construction traffic would increase traffic in the area for the limited time of the delivery of Project components and transport of heavy equipment. After delivery of Project components, traffic would

increase during construction in the vicinity of the Project as a result of contractor vehicles traveling to and from the Project. The construction traffic would be restricted to the established haul routes as described above.

Haul routes were designed for contractors and their drivers to avoid any potential traffic bottleneck issues during construction (**Appendix 33: Haul Route Plan**). Project roads would be constructed first, to support solar component deliveries to different areas of the Project and would provide a means of travel throughout the site.

- Solar modules would be delivered to the site on either 40-foot flatbed trucks or in 40-foot containers with a maximum of 220 trucks are expected with a maximum of 9 trucks per day over a seven-week period.
- Racking material would be delivered in a maximum of 200 container trucks over a six-week period.
- Inverters will be brought to the Project site in up to 24 deliveries over a six-week period.
- One oversized crane will be delivered and then demobilized.
- The balance of solar array equipment will be delivered in approximately 30 loads over a six-week period; container size will be 40 feet or smaller.
- A combined total of approximately 474 loads is estimated for the materials listed above.
- The construction trailers/offices would require two trucks for delivery and two trucks for demobilization.
- Peak construction traffic is expected between August and October 2019; approximately 150 employees are expected during this time, generating no more than 150 roundtrips per day to and from the Project site; employee parking will be onsite at the staging area.
- Water trucks used for construction and fugitive dust control will use a designated haul route from the likely source, located approximately 19 miles from the Project site located on Handle Road, with up to 6 trucks a day for 3 months and tapering off for the last 3 months of construction. Water trucks will not visit the site during Project operation.

During operation of the Project, the site will be visited routinely to perform maintenance and operation activities. Access for these activities would be via Washington Road (**Appendix 33: Haul Route Plan**).

A haul route video survey was conducted on August 28, 2018 and November 5, 2018 to record the current road conditions of the haul routes leading to the solar array (**Appendix 35: Road Condition Survey Statement**). The haul route video survey was submitted via FedEx to the County Planning & Community Development Department as part of the WSE-O application. The video indicated generally good conditions of haul route roads with ruts starting to form on McQueen Road.

The Applicant requested and received approval for a waiver for the Development Impact Mitigation Agreement since delivery of Project components and equipment will have minimal impacts on the roads along the haul route (**Appendix 36: Project Waivers**). The Applicant agrees to return roads to the condition as recorded in the haul route video survey, and understands that El Paso County Public Works will monitor roads during construction and would request that road conditions along the haul route would be returned to their original condition or better than prior to construction. Construction traffic would enter the site via access off Washington Road.

No traffic detours are anticipated for construction. Temporary signage at the site entrance may be installed during the construction period.

*Policy 9.3.1 Place a high priority on maintaining the environmental condition when planning or building roads.*

*Policy 9.3.4 Provide for noise attenuation and visual screening along major transportation corridors by incorporating techniques including setbacks, buffers, berms, and vegetation treatments.*

The Project does not include public roads. Construction and operation and maintenance personnel will utilize a private Project access road constructed off Washington Road. Proposed haul routes include routes along North Calhan Highway, Calhan Highway, Judge Orr Road, Washington Road, and Funk Road to arrive and depart from the Project access along Washington Road, and laydown yards along Washington Road and Funk Road (**Appendix 33: Haul Route Plan**).

Based on recommendations in the geotechnical report (**Appendix 37: Preliminary Geotechnical Engineering Report and Physical Characteristics Memo**), the private Project access roads would consist of native compacted soil located between solar arrays to allow maintenance technicians access to individual arrays during routine maintenance. The entrance road will be graveled to accommodate higher volumes of traffic (**Appendix 9: 1041 Site Plan**).

CORE assessed visual impacts of the Project (**Appendix 31: Visual Impact Analysis**). The photo simulation determined that there will be minimal visual impacts to the surrounding viewshed. The solar arrays will be visible from Washington Road, and minimally visible from Funk Road and Judge Orr Road. However, given the existing landscape of the wind turbines, the solar arrays will not significantly impact the viewshed in the surrounding area. Also, the solar panel arrays are setback approximately 900 feet from Washington Road, making them less visible from the road and homes to the north of Washington Road. The solar panels do not produce glare to avoid impacts to vehicular traffic (**Appendix 31: Visual Impact Analysis**).

One residence is located in the vicinity of the Project area 500-feet north of solar array, with a second residence located on the parcel immediately north of the solar array across Washington Road (over 1000 feet north of the solar array). The structure located on the parcel to the east of the solar array is an unoccupied storage shed and not a residence. Solar panels will measure approximately 10-14 feet at full tilt; inverters and transformers will not exceed 18 feet in height. The map containing the viewshed model identifies that the project can be seen by areas immediately adjacent to the solar array and from the north and east of the solar array (**Appendix 31: Visual Impact Analysis**). Areas to the west and south over a half mile away cannot view the solar array due to the rolling topography. As depicted in the photo simulations, the solar arrays will be visible from Washington Road, and minimally visible from Funk Road and Judge Orr Road. Therefore, the solar arrays will not significantly impact the viewshed in the surrounding area.

The Applicant held a community meeting on September 18, 2018 and invited members of the County Planning & Community Development Department (**Appendix 27: Community Meeting Attendance Sheet**). No visual impact concerns were raised at that time. The residence located 500-feet north of the solar array is owned by the landowner that deeded the solar array parcel to the Applicant and is in full support of the Project, as evidenced by the sale, and by her signature on a letter granting authority to represent Henriatte Long (Long parcel owner) as the agent in all matters pertaining to the Project county permitting, and otherwise utilize the property with respect to all Project permits (**Appendix 4: Authority to Represent Letters**). The solar array is visible from the Pachak residence (1200000388) that is located immediately north of the Long parcel. Pachak has also signed a letter granting the Applicant the authority to represent Pachak during the Project permitting and approval process and is in full support of the Project (**Appendix**

**4: Authority to Represent Letters).** No visual concern comments were raised by Long or Pachak. No other letters of complaints were received from the public/adjacent property owner.

The Project is not located close to a major transportation corridor. The closest major transportation corridor is Judge Orr Road, located approximately one mile south of the Project area. Construction noise would not reach traffic along Judge Orr Road.

#### **CPP 10.0 Water and Wastewater Facilities**

The Project will not have an adverse impact to water or sewer demands as the Project does not require water or wastewater facilities. Sanitary or other wastewater is not anticipated to be released into WOUS during construction, operation or maintenance of the Project.

Construction personnel would use portable sanitary units during construction, and they would carry in drinking water. Approximately four-million gallons of water will be used for dust mitigation, purchased from a commercial supplier. No washing of panels will occur throughout the lifetime of the Project. The Applicant conducted a cost-benefit analysis of panel washing versus the result of not washing panels; i.e., a decrease in revenue from a decrease in production of solar energy. The Applicant determined that the loss in revenue due to decreased production is not offset by the cost of water to wash the panels

*Policy 10.2.2 Carefully consider the availability of water and wastewater services prior to approving new development.*

The Project will not require long term water or wastewater services. Construction personnel will utilize portable sanitary units and will carry in drinking water. It is anticipated that approximately four-million gallons of water will be utilized during construction for dust mitigation, purchased from a commercial supplier (**Appendix 24: Water Commitment Letter**).

#### **CPP 11.0 Drainage and Flood Protection**

The Project will protect the general drainage patterns on the site, allowing for continuation of the stormwater drainage into Horse Creek, with no changes to floodplains or groundwater hydrology. Groundwater recharge will continue on site, as rainwater flows off the panels onto the vegetated ground.

Currently there are erosion control furrows installed in the 1900s across the site to detain stormwater and prevent erosion. It is anticipated that grading will be required to flatten the erosion control furrows in some locations within the solar array for adequate structural support and aspect of the solar panels. Grading will not alter the overall drainage basins identified in the Conceptual Drainage Report, and stormwater flow will continue to drain into Horse Creek (**Appendix 19: Conceptual Drainage Report**). Existing stormwater drainages will remain, and the solar arrays will be setback from the drainages. A culvert may be installed at the drainage crossing, and BMPs will be implemented at appropriate locations. The entrance road will be graveled and will require detention facilities as shown in the Conceptual Drainage Report (**Appendix 19: Conceptual Drainage Report**).

The Project will not create runoff in excess of historical levels, change historic topography or adversely affect drainage (**Appendix 19: Conceptual Drainage Report**). The Applicant or its contractor will obtain a permit for storm water discharges associated with construction activities in compliance with the Colorado Water Quality Control Act and will provide, maintain, and operate temporary facilities to control erosion and sediment releases, and to protect Project facilities from flooding during construction in accordance with the permit. The Project or contractor will comply with the permit by implementing a SWMP that

identifies possible pollutant sources that may contribute pollutants to stormwater and identify and implement BMPs that will reduce or eliminate potential water quality impacts. The final SWMP, GESC, and ESQCP application will be submitted to the County in conjunction with the construction permit(s) required for the Project.

There are not expected to be facilities or structures associated with Project construction that will impact flood elevations. Floodplain map revisions are not expected to be required for construction of the Project and no floodplain permits would be required (**Appendix 14: PPRBD Floodplain Correspondence**). The collection line corridor will cross a FEMA Zone-A floodplain located across Horse Creek north of the Project area. The contractor will either bore under or trench across the drainage and associated floodplain. The floodplain elevation will not be altered in either option. Boring would avoid impacts to Horse Creek and floodplain; trenching impacts would be temporary in nature and recontouring and reseeded would occur immediately following installation of the collection lines.

*Policy 11.1.4 Require development plans to effectively address both quantitative and qualitative impacts of drainage within the project site*

*Policy 11.1.8 Promote planning approaches which allow for interim solutions for drainage problems in less developed basins*

*Policy 11.4.7 Limit new development in and modification of flood plains in accordance with regionally adopted flood-plain regulations*

Based on recommendations in the geotechnical report (**Appendix 37: Preliminary Geotechnical Engineering Report and Physical Characteristics Memo**), the private Project access roads would consist of native compacted soil located between solar arrays to allow maintenance technicians access to individual arrays during routine maintenance. The entrance road will be graveled to accommodate higher volumes of traffic. The Project design will account for effects on drainage and will maintain the general pre-existing drainage patterns. Detention facilities will be installed to preserve historic flows that will result from stormwater runoff associated with the proposed gravel road locations (**Appendix 19: Conceptual Drainage Report**).

During construction, BMPs will minimize erosion and sedimentation due to grading of soils. No floodplains will be permanently impacted by the Project construction; temporary impacts may result from trenching across the floodplain of Horse Creek for the underground collection line if boring underneath the floodplain is not feasible. The trench will be backfilled immediately following installation of the collection lines and reseeded with a native seed mix. The original contours of the floodplain will not be altered.

## **CPP 12.0 Other Services and Utilities**

Goal 12.4 Reduce the adverse impacts and maximize the efficiency of energy generation, transmission and distribution systems.

The Project will produce 35-MW of clean renewable energy to be provided to CSU in support of their Energy Vision renewable energy goals, which aims to produce 20% of energy generation from renewable energy sources by 2020, while maintaining a regional energy cost advantage. The Project will maximize efficiency of existing infrastructure and zoning overlays by interconnecting to the existing Golden West substation, which is a part of the existing Golden West WSE-O. Energy will be transferred via the existing Golden West transmission line to the Jackson-Fuller substation. Essentially, the proposed Project will utilize existing infrastructure to transfer energy produced by the solar arrays.

*Policy 12.4.1: Ensure that electric, natural gas, petroleum and other facilities (generation, distribution, pipelines and storage) are located in a manner which is safe, environmentally sensitive and which does not unreasonably burden particular property owners with adverse impacts.*

The Project is sited on private property in a rural area used for rangeland. The area surrounding the property includes Golden West, and the Project will utilize the existing Golden West substation for interconnection. Visual impacts of the project are relatively low due to the low height of the panels. The underground collection line is designed to reduce impacts to adjacent property owners.

Any contractors working on the Project during construction will have a safety plan and Emergency Response Plan (**Appendix 28: Emergency Response Plan**). All construction activities occurring on the Project will meet the Applicant's corporate standards for environmental responsibility and stewardship.

*Policy 12.4.3: Promote energy efficiency through careful siting, design and landscaping, especially the use of passive solar.*

The Project will provide renewable energy and was sited in an area specifically identified for maximum efficiency in solar energy uptake. In addition, the Project will interconnect to existing energy transfer infrastructure located within the adjacent Golden West WSE-O, thereby minimizing its impact to the landscape. The Project does not include landscaping; disturbed areas would be reseeded with native seed mixes following construction.

*Policy 12.4.7: Allow for the effective use of renewable energy resources especially where it minimizes the local impacts on neighboring properties and non-renewable energy use.*

The Project is sited on private property in a rural area used for rangeland. The area surrounding the property includes Golden West, and the Project will utilize the existing Golden West substation for interconnection. The Project will provide 35-MW of renewable energy to CSU to support their Energy Vision renewable energy goals, which aim to produce 20% of energy generation from renewable energy sources by 2020, while maintaining a regional energy cost advantage. In effect, the Project will reduce the local use of non-renewable energy sources since CSU provides electricity to residents of the Pikes Peak region (**Appendix 6: CSU Service Area Map**).

Visual impacts of the project are relatively low due to the low height of the panels. The Project solar panels will not result in glare to flight or ground observation points (**Appendix 31: Visual Impact Analysis**). The Applicant prepared a Summary of Project Lighting Memo to ensure that construction light pollution does not exceed County standards nor impact nearby residents or nocturnal wildlife (**Appendix 38: Summary of Project Lighting Memo and Lighting Plan**). There will be no permanently installed lighting located on the Project for operations and maintenance. The majority of construction and maintenance will occur during daylight hours. In the event that lighting is needed during evening hours, temporary lighting would be placed in a manner compliant with Chapter 6 of the El Paso County Land Development Code and regulations of the Occupational Health and Safety Administration and other applicable codes, standards, laws and regulations (**Appendix 38: Summary of Project Lighting Memo and Lighting Plan**).

### **CPP 13.0 Housing**

The Project is not anticipated to impact housing availability. Adequate hotel/motel rooms exist approximately forty minutes west of the Project to accommodate the number of contractors for the duration of construction who may travel from outside of the County.

### **CPP 14.0 Public Finance Districts**

The Project will not require a public finance district.

### **CPP 15.0 Land Development Regulations**

The Project will follow existing County land development requirements and will not require a change to the land development regulations.

The WSE-O was specifically created by the County for the purpose of wind and/or solar projects. The El Paso County 1041 criteria were implemented to ensure that areas and activities of state interest, including construction of a major facility of a public utility such as a solar project, would not negatively impact the public health, safety, and welfare of the residents of El Paso County. No other variances for the development of this land use will be required. Public meetings were held in association with the requirements of the land use processes, including the WSE-O and 1041 hearings. A community meeting for affected adjacent landowners was held on September 18, 2018. Notifications were sent to all landowners within one mile of the project that included information on the proposed project, permitting, a comment opportunity, and details for the community meeting (**Appendix 39: Adjacent Property Owner Notification Letter and List of Landowners**). All mineral rights owners were notified of the Applicant's request for the Project WSE-O (**Appendix 2: Certification of Deed Research and Notification to Mineral Owners**). Adjacent landowners and mineral rights owners were notified of the scheduled WSE-O Planning Commission hearing and right to comment and were notified again for the Board of County Commissioners hearing that occurred on April 9, 2019. The Project WSE-O was approved unanimously on April 9, 2019.

### **2.303(7)(d) Specify Whether and how the Proposed Project Conforms to Applicable Regional and State Planning Policies**

The Project conforms to multiple local and state statutes and policies including Colorado's RES (C.R.S § 40-2-124) which requires 30% of retail energy sales to be derived from renewable generation for investor owned utilities and 10% for large municipal utilities by the year 2020. Other statutes and policy directives that require or encourage the production of renewable energy include the Colorado Governor's Climate Action Plan, and local initiatives of Colorado rural cooperatives, municipal utilities, and generation and transmission associations. The Project will support CSU's Energy Vision renewable energy goals, which aims to produce 20% of energy generation from renewable energy sources by 2020, while maintaining a regional energy cost advantage.

The Colorado State Energy Report 2014 provides the framework for the state to pursue its energy policies based on four key values: Growing Jobs and Spurring Innovation, Protecting Colorado's World-Class Environment, Streamlining Government and Encouraging Collaboration. The report includes a goal to grow jobs and spur innovation by developing Colorado's resources and technologies, "accelerate the development of renewable energy resources through implementation of Colorado's renewable energy standard (RES)". In 2013, Colorado passed Senate Bill 252, increasing portions of the RES and adding new eligible sources to promote economic development and energy market advances, encourage Colorado-based clean and innovative energy solutions, increase energy security, and protect the environment." In addition, the state produced a report<sup>3</sup>, which noted the following.

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<sup>3</sup> "Connecting Colorado's Renewable Resources to the Markets," Report of the Colorado Senate Bill 07-091, Renewable Resource Generation Development Areas Task Force, December 21, 2007.

“Solar energy is virtually limitless, non-polluting, quiet, has no security implications, generates skilled jobs and does not exacerbate greenhouse gases. These benefits have resulted in polling data that repeatedly demonstrates that the public overwhelmingly favors solar over other energy options.... The current higher initial cost of solar energy electric generating technology results in very low penetration levels under traditional processes. To overcome this barrier, development of solar energy currently requires effective policies that take into account solar’s long-term benefits.”

The Colorado Blueprint is a statewide strategic plan published in July 2011 that provides a framework for statewide and regional economic development. A specific goal stated for Region 4, including El Paso County, is to “Attract new business – Clean Tech-Renewable Energy”.

The Project would conform to Colorado state planning policies by developing the state’s solar resources, contributing 35 MW of renewable solar energy to CSU. Doing so would support the state’s utilities efforts to meet the state requirement that 30% of retail energy sales are derived from renewable generation by 2020.

The PPACG Regional Sustainability Plan addresses renewable energy goals for the Pikes Peak region. GOAL 1: By 2030, the region has made considerable progress toward 100% sustainable energy usage. Specifically, the PPACG Regional Sustainability Plan outlines a renewable energy goal that by the year 2030, 50% of energy consumed in the region is renewable and/or sustainable, maximizing the amount of renewable energy produced in the region from a 2010 baseline. Among strategies outlined to reach this goal, the Plan includes a general strategy to encourage utility-scale renewable energy projects within the region and an economic development strategy to support local sustainable industry development.

The Project conforms to this goal and strategies since it will develop a utility-scale solar energy facility within El Paso County that will contribute 35 MW of renewable energy to CSU that will supply energy to consumers in the Pikes Peak region.

**2.303(7)(e) Specify Whether and how the Proposed Project Conforms to Applicable Federal Land Management Policies**

The Project will be developed on privately-owned land parcels and would not impact federal lands in the County. In addition, no federal permits are required for development or construction of the Project.

**2.303(7)(f) If Relevant to the Project Design, Describe the Agricultural Productivity Capability of the Land in the Project Area, Using Soil Conservation Service Soils Classification Data**

Prime farmland is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber and oilseed crops; and is available for these uses and is not urban, built up, or water areas (Natural Resource Conservation Service [NRCS] 2008). The NRCS El Paso County Soil Survey soil survey identified six soil associations in the areas requiring ground disturbance (solar array and collection line) (**Table 2**). None of the soils occurring on the Project area are characterized as unique or prime farmland by the NRCS.

**Table 2. Soil Associations in the Solar Array and Collection Line Corridor**

Soil Association	Location	Acres
Truckton-Bresser complex, eroded	Array	16.90
Ascalon sandy loam, 1 to 3 percent slopes	Array	21.39
Truckton sandy loam, 3 to 9 percent slopes	Array	150.58
Bresser sandy loam, 3 to 5 percent slopes	Array	79.34
Ellicott loamy coarse sand, 0 to 5 percent slopes	Collection Line	3.22
Bresser sandy loam, 0 to 5 percent slopes	Collection Line	27.33
Ustic Torrfluvents, loamy	Collection Line	2.43
Truckton sandy loam, 3 to 9 percent slopes	Collection Line	12.33

**2.303(7)(g) Probability of Affect from Earthquakes, Floods, Fires, Snow, Slides, Avalanches, Rockslides, or Landslides and Measures to that will be taken to Reduce Impacts**

Terracon conducted a preliminary geotechnical engineering investigation of the Project (**Appendix 37: Preliminary Geotechnical Engineering Report and Physical Characteristics Memo**). Field investigations, laboratory testing, and geotechnical analyses were conducted for the following site elements: subsurface soil conditions, groundwater conditions, foundation design and construction, earthwork, and drainage. Based on the geotechnical analyses, Terracon determined that development of the site is considered feasible from a geotechnical standpoint provided specific mitigation measures are practiced during construction. Specifically, site preparation, soil types, and compaction levels would be followed to prevent flooding and improper drainage. In addition, the Colorado Geological Survey commented on the Project during the first submittal of the Project WSE-O application. The Colorado Geological Survey comments were received on December 18, 2018 and indicated no geologic hazard concerns provided the Project follow construction recommendations identified in the Geotechnical Engineering Report.

There is low risk of earthquakes, as the Project is located in a low-activity seismic zone I (**Appendix 37: Preliminary Geotechnical Engineering Report and Physical Characteristics Memo**). The Conceptual Drainage Report indicates low risk for flooding (**Appendix 19: Conceptual Drainage Report**). The risk of fire on the site is minimal since mowing of potential fuel sources will occur during the growing season. Nonetheless, the Applicant has developed a Wildland Fire and Hazard Mitigation Plan (**Appendix 29: Wildland Fire and Hazard Mitigation Plan**). The Project is located in a low fire hazard zone within the County as it is non-forested. The Colorado State Forest Service commented on the Project during the first submittal of the WSE-O application. The Colorado State Forest Service comments were received on December 5, 2018 and indicated that no additional fire mitigation plans, or other actions are necessary for final approval by the Colorado State Forest Service. The Project has obtained a fire commitment letter from the Calhan Fire District (**Appendix 30: Fire Commitment Letter**). Fuel will be contained within Laydown Yard 2 in accordance with OSHA outdoor portable tank storage regulation 1926.152(c)(4) during construction (**Appendix 28: Emergency Response Plan**). Aggregate will cover the Laydown area during construction and will be maintained to prevent vegetation growth within the laydown area. Grasslands will be a minimum of 25-feet from fuel storage areas. Fire extinguishers will be located no more than 75-feet from each fuel storage location. A detailed fire and explosion response protocol as it relates to construction will be submitted with the SDP. Should all safety measures fail, the Calhan Fire Department will attend the site for all construction-related fire emergencies. The Colorado Springs Region receives an average annual snowfall of 33 inches according to the National Weather Service National Oceanic and Atmospheric Administration. Snowdrifts along fence lines are typical in the vicinity of the Project; many properties have rows of trees planted as snow breaks. However, no snow breaks are currently located on the solar array

property and collection line properties. As such, the proposed Project will not significantly increase snow drifts in the vicinity.

No other natural hazards with the potential to affect the Project have been identified.

**2.303(7)(h) Specify if Excess Service Capabilities Created by the Proposed Project will Likely Generate Sprawl or Strip Development**

The Project would not be open to the public nor would it maintain any permanent on-site employees. For these reasons, it is not expected that the Project would have any impact on local service capabilities or contribute to sprawl or strip development.

**2.303(7)(i) Specify Whether Demand for the Project is Associated with Development Within or Contiguous to Existing Service Areas.**

Demand for the Project is associated with a need from Colorado Springs Utility to provide renewable energy to their consumers which supports CSU's Energy Vision renewable energy goals, which aims to produce 20% of energy generation from renewable energy sources by 2020, while maintaining a regional energy cost advantage. In addition, the Project supports Colorado's RES (C.R.S § 40-2-124) which requires 30% of retail energy sales to be derived from renewable generation for investor owned utilities and 10% for large municipal utilities by the year 2020. There is no specific program to which solar-generated energy will be dedicated. As such, energy generated by the Project will be distributed to CSU customers across the Pikes Peak region whom reside in their electricity service area (**Appendix 6: CSU Service Area Map**). CSU's basis for issuance of the RFP for renewable energy is based on the current growth patterns of the Colorado Springs region. The University of Colorado – Colorado Springs (UCCS) Economic Forum releases a quarterly report<sup>1</sup> that details growth patterns of residential buildings in the Pikes Peak Region. The latest quarterly report from the UCCS Economic Forum identifies a continued growth and expansion of both single family and multi-family housing permits between the first quarters of 2016 and 2017 in the Pikes Peak region. The number of single-family home building permits issued in the Pikes Peak Region increased by 3%, while the number of multi-family home building permits issued in the Pikes Peak Region increased by 1,227%. In addition, the UCCS Economic Forum identified the percent of the population moving from a different state to El Paso County (7.1%), Colorado (4.1%), and the United States (2.3%)<sup>2</sup>. The higher percent of people moving to El Paso County likely contributes to the large and continued increase in building permits, which has resulted in additional power needs for the region.

**2.303(8) Surface and Subsurface Drainage Analysis**

The Project Conceptual Drainage Report provides plans to remediate changes in the site drainage patterns resulting from the development of the Project (**Appendix 19: Conceptual Drainage Report**). Project access roads will include the development of approximately 16,530 linear feet of gravel roads that will increase the impervious surface area within the solar array. Gravel access roads will measure 20 feet in width from Washington Road to the entrance gate; remaining gravel access roads will measure 12-feet in width. The remainder of access roads within the solar array will consist of native-compacted soils and will measure

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<sup>1</sup> "Quarterly Economic Update, 1<sup>st</sup> Quarter, 2017 Data" University of Colorado – Colorado Springs, Economic Forum, May 2017.

<sup>2</sup> "The National, State, & Local Economies" University of Colorado – Colorado Springs, Economic Forum Presentation, October 4, 2018.

12-feet in width. Project drainage design includes development of an extended detention basin that will detain 1.4-acre feet of stormwater runoff. The detention basin will release flows at the eastern edge of the solar array into the stormwater drainage that traverses the Project solar array and leads to Horse Creek (**Appendix 19: Conceptual Drainage Report**). The Project is not anticipated to impact hydrologic flow of surface water or groundwater, nor affect groundwater recharge. Existing drainage patterns will be preserved through the development. The Project will not create runoff in excess of historical levels, change existing topography or adversely affect drainage. The Project or its contractor will obtain a permit for stormwater discharges associated with construction activities in compliance with the provisions of the Colorado Water Quality Control Act and will provide, maintain, and operate temporary facilities to control erosion and sediment releases, and to protect Project facilities from flooding during construction in accordance with the permit. The Project or contractor will comply with the permit by implementing a SWMP that identifies possible pollutant sources that may contribute pollutants to stormwater and identify and implement BMPs that will reduce or eliminate potential water quality impacts. The final SWMP and ESQCP will be submitted to the county in conjunction with the construction permit(s) required for the Project. There are not expected to be facilities or structures associated with Project construction that will impact flood elevations. Site topography will be returned to existing grade where possible and in accordance with the design. Flood plain map revisions are not expected to be required for construction of the Project and no floodplain permits will be required (**Appendix 14: PPRBD Floodplain Correspondence; Appendix 19: Conceptual Drainage Report**).

## **2.303(9) Financial Feasibility of the Project**

### **2.303(9)(a) Relevant Bond Issue, Loan, and other Financing Approvals or Certifications**

#### **2.303(9)(b) Business Plan Describing the Financial Feasibility of the Project**

Section 2.303(9) addresses financial health of the Project. Grazing Yak Solar, LLC is an affiliate of NextEra Energy Resources (NEER), a private, large-scale energy development company. Grazing Yak Solar, LLC will sell solar energy produced by the Project to Colorado Springs Utility through a PPA. The development and construction of the Project is not contingent upon obtaining external financing for either the construction or operation period of the Project. As such, no bonds or loans were secured for the Project since no external financing is needed. Due to NEER's size, credit standing and available liquidity, NEER is one of the few companies in the energy industry that has the flexibility to initially fund the development and construction of a project using our balance sheet and are not obligated to obtain external financing at these stages. Construction costs are anticipated to be approximately 40 million dollars; no debt will be incurred by the Project as the Applicant will pay all construction costs during construction. In addition, the Applicant purchased the property on which the solar array is proposed. The solar array property was deeded to the Applicant on March 1, 2019 and was recorded by the county clerk and recorder as a new parcel (**Appendix 3: Project Lease Agreements and Deed; Appendix 42: 1041 Affected Boundaries Map; 1200000390**).

As of the close of 2017, NEER operates approximately 46,000 MW of electric generation facilities located in 33 states in the U.S., and four provinces in Spain and Canada. Additionally, NEER owns or operates approximately 11% of the installed base of U.S. universal solar power production capacity. NEER has conducted a thorough analysis of the Project and based on the economics is confident that the Project is financially feasible.

NextEra has a current market capitalization of over \$84 Billion. The 2017 annual report is available online at the following web address:

<http://www.investor.nexteraenergy.com/~media/Files/N/NEE-IR/documents/annual-reports/nextera-energy-2017-annual-report.pdf>

Operating costs will be minimal and will be much smaller than the revenue generated by the PPA. Operating costs will include the following:

- Preventative and corrective maintenance on solar, and mid high voltage equipment up to the point of interconnection.
- Remote monitoring 24 hours per day, seven days per week from the centralized NextEra Fleet Performance & Diagnostic Center in Juno Beach, Florida
- Technical support from equipment Subject Matter Experts
- Environmental compliance monitoring conducted routinely
- Site vegetation management as required following Commercial Operation Day
- Electricity, phone, T-1 line (Supervisory Control and Data Acquisition [SCADA]) service
- Training for technicians conducting routine maintenance
- Site general and administrative costs

Operational costs may include agreements for services such as emergency fire services, grass trimming, and security. Required services will be determined prior to the start of operations. The Project has obtained a fire commitment letter from the Calhan Fire District to service the Project in case of emergency (**Appendix 30: Fire Commitment Letter**).

### **2.303(10) Local Infrastructure and Service Impacts**

There are no anticipated negative impacts to federal, state or county roads. Limited maintenance and electronic monitoring of the facility would not affect the existing transportation network or public services. No added services would be required for emergency service agencies for the Project, with the exception of the fire commitment from the Calhan Fire District. The Project is not anticipated to impact local traffic patterns over the long term; traffic resulting from construction would be temporary and would include the delivery of solar panels and associated components that would be delivered to the site via flat-bed trucks. Approximate staging area locations for incoming equipment and materials are depicted in the approved WSE-O Plan (**Appendix 10: Approved WSE-O Plan**). The staging areas will be used temporarily during construction and returned to pre-construction conditions, utilizing native seed mix to revegetate the disturbed areas.

Haul routes to the Project entrance would come from the north via North Calhan Highway to Washington, or from the south via State Highway 94 to Calhan Highway and Judge Orr Road (**Appendix 33: Haul Route Plan**). Haul routes are provided on the haul route plan that would be used to access a laydown area proposed on the parcel containing the existing Golden West substation and O&M building on Funk Road and transport supplies to the solar array via either McQueen or Currier Road (**Appendix 33: Haul Route Plan**).

The Applicant retained Sustainable Traffic Solutions to assess traffic on the haul routes leading to the Project (**Appendix 34: Transportation Memorandum**). The study assessed the main haul routes from US Highways 24 and 94 to Calhan Highway leading to the solar array. The traffic study determined that Project construction traffic would increase traffic in the area for the limited time of the delivery of Project components and transport of heavy equipment. After delivery of Project components, traffic would increase during construction in the vicinity of the Project as a result of contractor vehicles traveling to and from the Project. The construction traffic would be restricted to the established haul routes as described above.

Haul routes were designed for contractors and their drivers to avoid any potential traffic bottleneck issues during construction (**Appendix 33: Haul Route Plan**). Project roads would be constructed first, to support solar component deliveries to different areas of the Project and would provide a means of travel throughout the site.

- Solar modules would be delivered to the site on either 40-foot flatbed trucks or in 40-foot containers with a maximum of 220 trucks are expected with a maximum of 9 trucks per day over a seven-week period.
- Racking material would be delivered in a maximum of 200 container trucks over a six-week period.
- Inverters will be brought to the Project site in up to 24 deliveries over a six-week period.
- One oversized crane will be delivered and then demobilized.
- The balance of solar array equipment will be delivered in approximately 30 loads over a six-week period; container size will be 40 feet or smaller.
- The construction trailers/offices would require two trucks for delivery and two trucks for demobilization.
- Peak construction traffic is expected between August and October 2019; approximately 150 employees are expected during this time, generating no more than 150 roundtrips per day to and from the Project site; employee parking will be onsite at the staging area.
- Water trucks used for construction and fugitive dust control will use a designated haul route from the likely source, located approximately 19 miles from the Project site located on Handle Road, with up to 6 trucks a day for 3 months and tapering off for the last 3 months of construction.

During operation of the Project, the site will be visited routinely to perform maintenance and operation activities. Access for these activities would be via Washington Road (**Appendix 33: Haul Route Plan**).

A haul route video survey was conducted on August 28, and November 5, 2018 to record the current road conditions of the haul routes leading to the solar array (**Appendix 35: Road Condition Survey Statement**). The haul route video survey was submitted to the County Planning & Community Development Department via mail as part of the WSE-O application. The video indicated generally good conditions of haul route roads with ruts starting to form on McQueen Road. The Applicant understands that El Paso County Public Works will monitor road conditions during construction and that it will be requested that road conditions be returned to their prior condition or better at the complete of construction.

No new wastewater or water facilities would be required for construction or operation of the Project. Construction personnel would utilize portable restrooms, and potable water would be provided on-site. Water required for dust mitigation would be obtained from a private landowner local to the Project.

### **2.303(11) Recreational Opportunities**

The proposed Project would not result in impacts to current or proposed recreational opportunities. The site is composed of land zoned as A-35 (Agricultural). There are no County or state recreation areas on or adjacent to the Project. The Paint Mines Interpretive Park is located approximately two miles from the Project but would not be impacted by Project development or construction. The Project will be located adjacent to the existing Golden West WSE-O, and approximately one mile south of the existing Golden West substation.

### **2.303(12) Areas of Paleontological, Historic or Archaeological Importance**

The Applicant contracted AECOM to prepare an Intensive Cultural Resources Inventory (**Appendix 25: Cultural Resources Letter from SHPO and Intensive Cultural Resources Inventory**). The report indicated that no resources were considered eligible for the Nation Historic Register, and that no further work was recommended. AECOM did identify that the erosion control furrows and dam (stock pond) located in the Project could be considered as contributing to the rural landscape. However, similar erosion control furrows abound in the area. Grading of the erosion control furrows in the Project would not collectively impact these regional erosional control features. The dam will be avoided during construction. The Applicant has consulted with the SHPO on potential effects to resources potentially eligible for the state historic register resulting from development of the Project. SHPO determined that no resources are located in the solar array or underground collection line corridor (**Appendix 25: Cultural Resources Letter from SHPO and Intensive Cultural Resources Inventory**).

### **2.303(13) Nuisance – Descriptions of Noise, Glare, Dust, Fumes, Vibration and Odor Levels Anticipated to be Caused by the Project**

The Project would not substantially increase nuisance levels. The Applicant retained Epsilon to perform a Project noise study (**Appendix 20: Sound Level Assessment and Noise Waiver Letters**). Predicted decibel levels of construction noise were modeled at the solar array boundary, and at receptors within a one-mile radius of the solar array. The Noise Study assessed predictable construction and operations noise of the Project and determined that during the construction phase, noise may exceed decibel levels listed in the County Ordinance Concerning Noise Levels in Unincorporated El Paso County (Ordinance No. 02-1) at the solar array property boundary when activities are close to the edge of the solar array property boundary. Noise levels would meet County Ordinance thresholds at all adjacent residences (receptors). Construction activities would typically be limited to normal working hours between 7:00 am and 6:00 pm, Monday through Saturday. Work outside of these hours would be limited and would be restricted away from the solar array boundary to meet permissible construction noise levels outlined in the ordinance. The Applicant is in the process of obtaining waivers from adjacent landowners that state their support for the Project, regardless of the potential for some construction noise exceeding the County Ordinance thresholds at the boundary of the solar array. Noise levels associated with installation of the underground collection line will not exceed County Ordinance thresholds.

Noise produced during Project operations will be negligible to sound receptors within the one-mile radius of the solar array. Solar panels are silent; however, inverters do emit sound (**Appendix 20: Sound Level Assessment and Noise Waiver Letters**). The sound emitted from an inverter has a similar intensity as an air conditioner and the sound dissipates significantly and quickly with distance. The noise study determined that no noise will be received by any sound receptors (occupied residential or occupied work space) within a one-mile radius of the solar array.

CORE completed a glare analysis using the ForgeSolar GlareGauge analysis tool. Solar panel technology has advanced to reduce glare in order to minimize impacts to migratory birds and wildlife, overhead aircraft, and local traffic. The glare analysis conducted for the Project determined that the solar arrays will not produce significant glare (**Appendix 31: Visual Impacts Analysis**), and therefore will have minimal impacts to migratory birds and wildlife, overhead aircraft, or local traffic.

There is the potential for a minor increase in fugitive dust during construction activities; however, fugitive dust will be temporary and mitigated through the use of watering trucks and other BMPs identified in the Project APEN that will be submitted prior to construction. Up to four-million gallons of water will be used for dust mitigation, purchased from a commercial supplier. (**Appendix 24: Water Commitment Letter**).

Fumes, vibration and odor levels are not expected to change as a result of the Project operation.

### **2.303(14) Air Quality**

Land development projects that are greater than or equal to 25 contiguous acres and/or six months in duration typically require the submission of an APEN and an air permit. The APEN form is used to record general project information (e.g., project description, location, size, and duration) regarding the land development project. The APEN form also includes detailed information on the Fugitive Dust Control Plan (FDCCP) for land development. An APEN would be submitted for this Project prior to earth disturbing activities and in accordance with the Project Air Quality Management Plan (**Appendix 18: Air Quality Management Plan**).

The Environmental Protection Agency (EPA) sets forth the National Ambient Air Quality Standards (NAAQS) pursuant to the Clean Air Act. Colorado administers the NAAQS through issuance of the APEN. The standards identify six pollutants that are considered harmful to people's health in excess of the NAAQS. The Project is located in the Pikes Peak air quality monitoring region as identified by the CDPHE. Multiple air quality monitoring stations are located within the Pikes Peak area; however, no monitoring stations are located east of the monitoring stations located along the I-25 corridor in Colorado Springs. As of January 2019, the Pikes Peak monitoring area is considered an attainment area across all NAAQS. Development of the Project would not impact seasonal air circulation patterns.

Air quality impacts associated with construction projects generally arise from fugitive dust generation during the operation of heavy equipment. Large earth-moving equipment, skid loaders, trucks, and other mobile sources may be powered by diesel or gasoline and are sources of combustion emissions, which include NO<sub>x</sub>, CO, VOCs, particulate matter (PM), small amounts of SO<sub>2</sub>, trace amounts of hazardous air pollutants (HAPs), and greenhouse gas (GHG). Seasonal winds have the potential to move emissions outside of the Project area; however, emissions would be minimal and transient in nature during the period of construction (six to eight months) and would not significantly contribute to the ozone levels in Arapahoe County.

It is anticipated that construction would result in additional particulate matter in the Pikes Peak monitoring area in the form of dust. Water would be applied regularly during construction to prevent the addition of particulate matter into the local air shed in the form of dust.

Seasonal patterns would have minimal impacts on emissions and fugitive dust emission. Since construction may occur during the late spring and summer months, water would be applied more regularly since evaporative rates, and sometimes winds, are greater during the warmer seasons. Water would be applied according to BMPs.

### **2.303(15) Visual Quality**

CORE completed a visual impact analysis to determine what can be seen once the Project is constructed (**Appendix 31: Visual Impact Analysis**). The map containing the viewshed model identifies that the project can be seen by areas immediately adjacent to the solar array and from the north and east of the solar array. Areas to the west and south over a half mile away cannot view the solar array due to the rolling topography. As depicted in the photo simulations, the solar arrays will be visible from Washington Road, and minimally visible from Funk Road and Judge Orr Road. Properties surrounding the solar array include the Webb parcel (1200000262), the Minix parcel (1200000263), the Wilson parcel (1300000422), the Balsick parcel (1200000387), and the Long parcel (1200000390). Of those parcels, a residence is located on only the Long parcel. No other parcels contain occupied structures from which the arrays would be visible. The residence located 500-feet north of the solar array is owned by the landowner that deeded the solar array parcel to the Applicant and is in full support of the Project, as evidenced by the sale, and by her signature on a letter granting authority to represent Henriatte Long (Long parcel owner) as the agent in all matters pertaining to the Project county permitting, and otherwise utilize the property with respect to all Project permits. The solar array is visible from the Pachak residence (1200000388) that is located immediately north of the Long parcel. Pachak has also signed a letter granting the Applicant the authority to represent Pachak during the Project permitting and approval process and is in full support of the Project (**Appendix 4: Authority to Represent Letters**). No visual concern comments were raised by Long or Pachak. In addition, the Applicant held a community meeting on September 18, 2018 to address any concerns of landowners in the vicinity of the Project (**Appendix 27: Community Meeting Attendance Sheet**). The Applicant invited members of the County Planning & Community Development Department (DSD). Eleven (11) community members attended the meeting to ask questions about the Project (**Appendix 27: Community Meeting Attendance Sheet**). Visual impact concerns were not raised during the meeting. No other letters of complaints were received from the public/adjacent property owner.

The solar arrays will not significantly impact the viewshed in the surrounding area and no screening is proposed. Also, given the existing landscape of the wind turbines, the solar panels are integrated within the context of adjoining properties and uses. As part of the visual impact analysis, CORE completed a glare analysis using the ForgeSolar GlareGauge analysis tool. Solar panel technology has advanced to reduce glare in order to minimize impacts to migratory birds and wildlife, overhead aircraft, and local traffic. The glare analysis conducted for the Project determined that the solar arrays will not produce significant glare (**Appendix 31: Visual Impact Analysis**), and therefore will have minimal impacts to migratory birds and wildlife, overhead aircraft, or local traffic.

## 2.303(16) Surface Water Quality

### 2.303(16)(a) Map and Description of Surface Waters Relevant to the Project, Including Description of Applicable Regional Water Quality Management Plan, NPDES Phase II Permit and EPC ESQCP, Section 404 Clean Water Act and Assessment of Compliance with these Provisions

The Project is located in the Fountain Watershed (USGS 8-Digit HUC 11020003). It is not anticipated that the Project would impact hydrologic flow of surface water. Existing surface water drainage patterns will be preserved after site development. The Project will not create runoff in excess of historical levels, change existing topography or adversely affect drainage (**Appendix 19: Conceptual Drainage Report**). Project access roads will include the development of approximately 16,530 linear feet of gravel roads that will increase the impervious surface area within the solar array. Gravel access roads will measure 20 feet in width from Washington Road to the entrance gate; remaining gravel access roads will measure 12-feet in width. The remainder of access roads within the solar array will consist of native-compacted soils and will measure 12-feet in width. Project drainage design includes development of an extended detention basin that will detain 1.4-acre-feet of stormwater runoff. The detention basin will release flows at the eastern edge of the solar array into the drainage to Horse Creek at historic rates. The Applicant or its contractor will obtain a permit for stormwater discharges associated with construction activities in compliance with the provisions of the Colorado Water Quality Control Act and would provide, maintain, and operate temporary facilities to control erosion and sediment releases, and to protect Project facilities from flooding during construction in accordance with the permit. The Applicant or contractor will comply with the permit by implementing a SWMP that identifies possible pollutant sources that may contribute pollutants to stormwater and identify and implement BMPs that would reduce or eliminate potential water quality impacts. The final SWMP and county ESQCP will be developed and submitted to the county in conjunction with the construction permit(s) required for the Project.

There will be no facilities or structures associated with construction of the Project that will impact flood elevations. Site topography will be returned to existing grade where possible following construction and in accordance with the approved Project design. Floodplain map revisions will not be required for construction of the Project. It is not anticipated that a Floodplain Development Permit from the Pikes Peak Regional Building Department would be required for construction; however, one would be acquired prior to construction if needed.

The potential for the presence of WOUS was described in the Wetlands, Waterbodies, and Threatened, Endangered, and Species of Special Concern Report (**Appendix 21: Wetlands, Waterbodies, and Threatened, Endangered and Species of Special Concern Report**). CORE performed a desktop review and natural resources survey to identify the potential for the presence of WOUS. The desktop review indicated that an unnamed tributary to Horse Creek drains the solar array in an easterly direction, and a stock pond is located along the tributary in the central portion of the solar array. Horse Creek traverses the central portion of the collection line corridor. A FEMA Zone A floodplain is located across the main channel of Horse Creek traversing the collection line corridor. The PPRBD Flood Plain Manager indicated that no permits are required to trench across the Horse Creek Zone-A floodplain for installation of the collection lines (**Appendix 14: PPRBD Floodplain Correspondence**). CORE performed a natural resources survey on August 23, 2018. The unnamed tributary presented as an upland swale with no defined bed and bank. The stock pond was dammed with no apparent outlet to downstream. It is CORE's opinion that no potentially jurisdictional water features are located on the solar array or collection line corridor. CORE received an approved JD from the USACE for the Project on November 2, 2018. The approved JD

indicated that no jurisdictional water features are located on the Project (**Appendix 16: Approved Jurisdictional Determination**).

### **2.303(16)(b) Existing Data Monitoring Sources**

Not applicable. No water wells were monitored for the Project.

### **2.303(16)(c) Immediate and Long-term Impacts to Surface Water Quantity and Quality**

Any impacts to surface water quality during construction will be minimized by implementing BMPs and a Project-specific SWMP. An ESQCP application will be submitted to the county in conjunction with the construction permit(s) required for the Project. Site drainage will not change significantly as a result of Project construction; a detention basin will collect additional stormwater runoff from the gravel access roads and will release flows into the Horse Creek drainage at historic rates (**Appendix 19: Conceptual Drainage Report**). The Project will not alter or impede flows in the stormwater swale leading to Horse Creek (**Appendix 19: Conceptual Drainage Report**). The collection lines will trench across or bore under the Horse Creek crossing location; contours will be returned to original elevations prior to installation of the collection lines.

## **2.303(17) Groundwater Quality**

### **2.303(17)(a) Map and Description of all Groundwater Relevant to the Project**

#### *2.303(17)(a)(i) Seasonal Water Levels in Portions of Aquifer Affected by the Project*

Tetra Tech conducted a Phase I Environmental Site Assessment (ESA) for the Project in November 2018 (**Appendix 36: Phase I Environmental Site Assessment**). The ESA indicated that the estimated depth to groundwater in the area is approximately 1,000 feet in the Denver Basin Denver Aquifer. Water wells in the area of the Project are generally over 1,000 feet deep. Any excavation or pile driving for Project facilities will not exceed 20 feet in depth and will not impact groundwater.

#### *2.303(17)(a)(ii) Artesian pressure*

Since solar facilities will not use groundwater or impact groundwater, artesian pressure was not assessed.

#### *2.303(17)(a)(iii) Groundwater flow directions and levels*

Since solar facilities will not use groundwater or impact groundwater, no groundwater monitoring wells were installed in the Project.

#### *2.303(17)(a)(iv) Existing aquifer recharge rates and methodology used to calculate recharge*

Since solar facilities will not use or impact groundwater, existing aquifer recharge rates were not measured.

#### *2.303(17)(a)(v) Ability of aquifer to impound groundwater and storage capacity*

Operation of the solar facilities will not use or impact groundwater, therefore the ability of the aquifer to impound groundwater and storage capacity were not measured.

*2.303(17)(a)(vi) Seepage losses expected*

Given the minimal impervious surface added and the runoff of precipitation from the solar panels, seepage losses are not expected.

*2.303(17)(a)(vii) Existing Groundwater Quality and Classification*

The ESA did not indicate the presence of any hazardous materials that would indicate poor quality of existing groundwater. It is assumed that groundwater is located at depths over 1,000 feet within the Denver Basin Denver Aquifer.

*2.303(17)(a)(viii) Location of all Water Wells Potentially Affected by the Project*

There are no groundwater wells located on the Project property.

**2.303(17)(b) Description of the Impacts and net Effect of the Project on Groundwater**

The Project is anticipated to have little effect on groundwater for the following reasons:

- The Project does not involve the use or installation of groundwater wells.
- No construction activities will occur below the water table.
- The amount of impervious surface to be installed is minimal and is therefore anticipated to have little effect on recharge of the underlying gravels and alluviums.

## **2.303(18) Water Quantity**

**2.303(18)(a) Map and Description of Existing Stream Flows and Reservoir Levels Relevant to the Project**

There are no perennial streams or reservoirs on the Project site; no stream flows or reservoir levels will be affected by the Project (**Appendix 19: Conceptual Drainage Report**).

**2.303(18)(b) Map and Description of Minimum Stream Flows Held by the Colorado Water Conservation**

**Board**

No stream flows will be affected by construction of the Project; there are no perennial streams on the Project.

**2.303(18)(c) Description of Impacts and net effect on Water Quantity**

The Project would have negligible impacts on water quantity. No washing of panels will occur throughout the lifetime of the Project. The Applicant conducted a cost-benefit analysis of panel washing versus the result of not washing panels; i.e., a decrease in revenue from a decrease in production of solar energy. The Applicant determined that the loss in revenue due to decreased production is not offset by the cost of water to wash the panels. Fugitive dust mitigation and soil treatment during construction will require approximately four million gallons of water. The Applicant has procured a Water Commitment Letter from a water supplier (**Appendix 24: Water Commitment Letter**).

**2.303(18)(d) Statement of Methods for Efficient Utilization of Water**

Water use will be limited to dust mitigation and soil treatment during Project construction. No washing of panels will occur throughout the lifetime of the Project. The Applicant conducted a cost-benefit analysis

of panel washing versus the result of not washing panels; i.e., a decrease in revenue from a decrease in production of solar energy. The Applicant determined that the loss in revenue due to decreased production is not offset by the cost of water to wash the panels.

## **2.303(19) Floodplains, Wetlands and Riparian Areas; Terrestrial and Aquatic Animals, Plant Life and Habitat**

The Project will be developed with a commitment to environmental stewardship. CORE completed a natural resource survey to assess habitat and wildlife species that may occur on the Project area (**Appendix 21: Wetlands, Waterbodies, and Threatened, Endangered and Species of Special Concern Report**). CORE conducted a desktop review and natural resources survey to identify the potential for the presence of state or federally listed TES and SC, and potential WOUS in the solar array and the collection line (Study Area). The desktop review and natural resources surveys indicated that no federally or state listed species, or their associated habitat, have the potential to occur or were observed on the Project. Swift fox (*Vulpes velox*) has the potential to den in the Project; however, no swift fox or dens were observed during the natural resources survey (**Appendix 21: Wetlands, Waterbodies, and Threatened, Endangered and Species of Special Concern Report**). To avoid potential impacts to swift fox, the Applicant will conduct swift fox surveys during the pupping season should ground disturbance be required during this period. The Applicant recognizes that general wildlife, including big game, do have potential to occur in the solar array. As such, the contractor will install an 8-foot fence to encompass the Project to deter ungulates from attempting to jump over the fence. The Applicant correspondence with CPW details methods by which impacts to wildlife, plant life, and habitat will be avoided and minimized (**Appendix 15: Colorado Parks and Wildlife Correspondence**).

The potential for the presence of WOUS was described in the Wetlands, Waterbodies, and Threatened, Endangered, and Species of Special Concern Report (**Appendix 21: Wetlands, Waterbodies, and Threatened, Endangered and Species of Special Concern Report**). CORE performed a desktop review and natural resources survey to identify the potential for the presence of WOUS. The desktop review indicated that an unnamed tributary to Horse Creek drains the solar array in an easterly direction, and a stock pond is located along the tributary in the central portion of the solar array. Horse Creek traverses the central portion of the collection line easement. A FEMA Zone A floodplain is located across the main channel of Horse Creek traversing the collection line easement. The PPRBD Flood Plain Manager indicated that no permits are required to trench across the Horse Creek Zone-A floodplain for installation of the collection lines (**Appendix 14: PPRBD Floodplain Correspondence**). CORE performed a natural resources survey on August 23, 2018. The unnamed tributary presented as an upland swale with no defined bed and bank. The stock pond was dammed with no apparent outlet to downstream. The dam will not be impacted by construction of the Project. It is CORE's opinion that no potentially jurisdictional water features are located on the solar array or collection line easement. CORE received an approved JD from the USACE for the Project on November 2, 2018. The approved JD indicated that no jurisdictional water features are located on the Project (**Appendix 16: Approved Jurisdictional Determination**).

According to USGS National Land Cover Database, the primary land cover type in the Project area is grassland/herbaceous. Herbaceous plants observed in the Study Area were dominated by buffalo grass (*Bouteloua gracilis*), arctic sage (*Artemisia frigida*), meadow barley (*Hordeum brachyantherum*), needle and thread (*Hesperotipa comata*), sulphur buckwheat (*Polygonum umbellatum*), and blazing star (*Liatris squarrosa*). Vegetation that will be temporarily impacted by construction will be reseeded following construction with

a native seed mix. Reseeded areas will be protected from erosion with appropriate BMPs. Revegetation methods will likely include broadcast seeding and/or drill seeding a mix of native grasses. It is anticipated that weed stubble, following noxious weed treatment and mowing of the site, will secure seed in the topsoil. The exact method of revegetation is dependent upon the time of year at which construction would start. As such, specific revegetation methods will be detailed during the Site Development Plan phase.

## **2.303(20) Soils, Geologic Conditions and Natural Hazards**

### **2.303(20)(a) Map and/or Description of Soils, Geologic Conditions, and Natural Hazards**

The Project is located in a low hazard/non-forested area of the county (**Appendix 29: Wildland Fire and Hazard Mitigation Plan**). As such, risk of wildfire is minimal on the Project. In addition, the chance of wildfire would not likely increase significantly as a result of Project development. Soil types are depicted in the Project Soils Map (**Appendix 41: Project Soils Map**). The Project Preliminary Geotechnical Engineering Report indicated that Project soils are adequate for the proposed building methods, including pile driving. No other natural hazards with the potential to affect the Project have been identified (**Appendix 37: Preliminary Geotechnical Engineering Report and Physical Characteristics Memo**). In addition, the Colorado Geological Survey commented on the Project during the first submittal of the Project WSE-O application. The Colorado Geological Survey comments were received on December 18, 2018 and indicated no geologic hazard concerns provided the Project follow construction recommendations identified in the Geotechnical Engineering Report.

### **2.303(20)(b) Description of Risks to the Project from Natural Hazards**

As described in sec. 2.203(20)(a) above, there is a minimal risk for wildfire on the Project site. Should wildfire occur, the Calhan Fire District would respond. The Project has obtained a Fire Commitment Letter from the district to respond to any fire emergency on the Project during construction and operations (**Appendix 30: Fire Commitment Letter**). Fuel will be stored within the Laydown Yard 2 during construction in accordance with OSHA outdoor portable tank storage regulation 1926.152(c)(4) (**Appendix 28: Emergency Response Plan**). Aggregate will cover the Laydown 2 area during construction and will be maintained to prevent vegetation growth within the laydown area. Grasslands will be a minimum of 25-feet from fuel storage areas. Fire extinguishers will be located no more than 75-feet from each fuel storage location. A detailed fire and explosion response protocol as it relates to construction will be submitted with the SDP. Should all safety measures fail, the Calhan Fire Department will attend the site for all construction-related fire emergencies. A detailed fire and explosion protocol will be submitted with the SDP. The risk of fire is greatly reduced during operations as no spark producing equipment will be in operation, and no fuel will remain on site. During operations, the Calhan Fire Department will attend to fires within the solar array from the fence line and will ensure that fire does not escape the solar array. Other natural hazard risks include heavy snow storms or high winds, and the Project design considers snow loads and wind. The greatest risk of damage to site solar facilities is from a tornado. No other natural hazards with the potential to affect the Project have been identified.

### **2.303(20)(c) Description of Impacts and Net Effect of Project on Soil and Geologic Conditions**

The Project will have minimal impacts to local soils and no impact to geologic conditions. Soil disturbance will be limited to grading required for solar panel installation, site access, gravel access road installation, and collection line installation. The Project will prepare a GEC Plan that would be approved by the county, prior to commencing construction.

## 2.303(21) Hazardous Materials

### 2.303(21)(a) Description of Hazardous Materials to be Used for the Project

During Project construction, hazardous materials used on site will be limited to petroleum products, including unleaded gasoline, diesel fuel, oil, and lubricants for construction equipment. Fuels will be stored within Laydown Yard 2 during construction. The fuel storage area will include three tanks which will contain 500-gallons of unleaded gasoline, 500-gallons of on-road diesel fuel, and 1,000-gallons of off-road diesel fuel. Fuel will be stored in accordance with OSHA outdoor portable tank storage regulation 1926.152(c)(4) (**Appendix 28: Emergency Response Plan**). Aggregate will cover the Laydown 2 area during construction and will be maintained to prevent vegetation growth within the laydown area. Grasslands will be a minimum of 25-feet from fuel storage areas. Fire extinguishers will be located no more than 75-feet and no less than 2-feet from each fuel storage location. A detailed fire and explosion response protocol as it relates to construction will be submitted with the SDP. Construction equipment will be maintained at all times to minimize leaks of motor oils, hydraulic fluids, and fuels. All vehicle refueling and maintenance of vehicles authorized for highway travel will be conducted off-site. An SPCC Plan will be prepared for the Project and will contain information regarding training, equipment inspection and maintenance, and refueling of construction vehicles, with an emphasis on spill prevention. Hazardous materials will not be stored on the Project site during the operational period.

### 2.303(21)(b) Location of Storage Areas and Spill Containment Plans and Structures

The location of storage areas for hazardous materials will be described in the Project SPCC Plan. The SPCC Plan will be completed prior to the initiation of construction activities. Unleaded gasoline and diesel fuel will be located within Laydown Yard 2 (**Appendix 9: 1041 Site Plan**)

## 2.303(22) Monitoring and Mitigation Plan

### 2.303(22)(a) Description of all Proposed Mitigation

Mitigation techniques for the Project would include:

- Disturbance of vegetation will be limited to that which is necessary for Project construction and maintenance.
- Stormwater management best management practices (BMPs) would be used to minimize stormwater related impacts during construction activities. Current drainage patterns will be preserved through use of a stormwater BMP (detention pond). Stormwater will be released from the proposed stormwater detention facility into the drainage at historic flow rate (**Appendix 19: Conceptual Drainage Report**).
- A qualified biologist will clear the solar array and collection line easement prior to ground-disturbing activities for active swift fox dens and ground-nesting migratory birds, dependent upon seasonal timing of construction. Should the biologist observe denning swift fox or ground-nesting migratory birds, CPW will be contacted to identify appropriate spatial buffers for monitoring until denning and nesting is complete.

- Project facilities will avoid the drainage that traverses the central portion of the solar array and will not be altered during construction.
- Non-native vegetation and noxious weeds will be managed on the Project as required for Project operation; management will follow methods described in the Project-specific Noxious Weed Management Plan (**Appendix 11: Noxious Weed Management Plan**). Revegetation methods will include broadcast seeding and protecting newly sown seeds from wind and water erosion with appropriate BMPs. The exact method of revegetation is dependent upon the time of year at which construction would start. As such, specific revegetation methods will be detailed during the Site Development Plan phase. Operations will require regular mowing to prevent shading of the solar panels.
- BMPs identified in the Project's SPCC Plan will be implemented.
- BMPs identified in the Project's SWMP will be implemented.
- A haul route video survey was conducted on August 28, 2018 and November 5, 2018 to record the current road conditions of the haul routes leading to the solar array (**Appendix 35: Road Condition Survey Statement**). The haul route video survey was submitted via to the County Planning & Community Development Department as part of the WSE-O application. The video indicated generally good conditions of haul route roads with ruts starting to form on McQueen Road. The Applicant understands that road conditions of the haul route will be video-recorded at the completion of construction and that the El Paso County Public Works Department may request specific work to be done to the roads to return them to their original condition prior to construction.
- The Applicant has submitted a Decommissioning Agreement in lieu of a Decommissioning Plan. A statement describing the intent and rationale of the Decommissioning Agreement is attached (**Appendix 23: Decommissioning Agreement and Statement**).

### **2.303(22)(b) Methodology to Measure Impacts**

Methodologies to measure Project impacts will include:

- Routine SPCC Plan inspections and reporting;
- Routine SWMP inspections and reporting;
- Pre-construction surveys and biologist monitoring as needed.

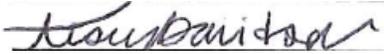
### **2.303(22)(c) Description of Monitoring**

Monitoring protocols will include:

- SWMP BMPs will be monitored during construction activities;
- SPCC Plan BMPs will be monitored during construction activities;
- Monitoring of energy production will occur to ensure adherence to the PPA;
- If necessary, denning swift fox and ground-nesting migratory birds will be monitored;
- Monitoring for necessity of site mowing will maintain low vegetation coverage to avoid shading of solar panels.

Your review of this application is appreciated, and we look forward to any questions or comments regarding the information herein. Please let us know if there is any additional information required. If you have any questions regarding this submittal and the associated appendices please feel free to contact Alsey Davidson, project developer, at 561.814.7287.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Alsey Davidson", is written over a horizontal line.

Alsey Davidson  
Project Developer  
Grazing Yak Solar, LLC