

2.303(1) Completed Application Form	5
2.301(2) Additional Information, as Required by the Director	5
2.303(3) Certification of Deed Research of Mineral Owners and Notification to Mineral Owners of Surface Development.....	5
2.303(4) Information Describing the Applicant.....	5
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	5
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.....	6
2.303(4)(c) Written Authorization of the Application Package by the Project Owner, if Different than the Applicant	6
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	6
2.303(4)(e) Written Qualifications of Report Preparers.....	6
2.303(5) Information Describing the Project.....	8
2.303(5)(a) Vicinity Map.....	8
2.303(5)(b) Executive Summary, Including Scope and Need	8
2.303(5)(d) Description of Alternatives Considered.....	9
2.303(5)(e) Schedules for Designing, Permitting, Constructing and Operating the Project; Include Estimated Project Life.....	9
2.303(5)(f) Project Need and Alternatives Considered.....	10
2.303(5)(g) Conservation Techniques to be used During Construction and Operation of the Project:.....	10
2.303(5)(h) Description of Demands the Project Expects to meet and the Basis for Projections	12
2.303(5)(i) List of Adjacent Property Owners	12
2.303(6) Information Describing the Project.....	12
2.303(6)(a) Description of Property Rights Affected by the Project.....	12
2.303(6)(b) Federal, State and Local Permits and Approvals.....	13
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.....	14
2.303(7) Land Use.....	18
2.303(7)(a) Project Map Detailing Current Land Use and Zoning, Including Adjacent Lands	18

2.303(7)(b) Affected Public Land Boundaries and Impacts.....	18
2.303(7)(c) Specify Whether and how the Proposed Project Conforms to the El Paso County Master Plan	18
2.303(7)(d) Specify Whether and how the Proposed Project Conforms to Applicable Regional and State Planning Policies	34
2.303(7)(e) Specify Whether and how the Proposed Project Conforms Applicable Federal Land Management Policies	36
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	36
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.....	36
2.303(7)(h) Specify if Excess Service Capabilities Created by the Proposed Project will Likely Generate Sprawl or Strip Development.....	37
2.303(7)(i) Specify Whether Demand for the Project is Associated with Development Within or Contiguous to Existing Service Areas.....	37
2.303(8) Surface and Subsurface Drainage Analysis	37
2.303(9) Financial Feasibility of the Project.....	38
2.303(9)(a) Relevant Bond Issue, Loan, and other Financing Approvals or Certifications	38
2.303(9)(b) Business Plan Describing the Financial Feasibility of the Project	38
2.303(10) Local Infrastructure and Service Impacts.....	38
2.303(11) Recreational Opportunities.....	39
2.303(12) Areas of Paleontological, Historic or Archaeological Importance.....	39
2.303(13) Nuisance – Descriptions of Noise, Glare, Dust, Fumes, Vibration and Odor Levels Anticipated to be Caused by the Project	39
2.303(14) Air Quality.....	39
2.303(15) Visual Quality.....	40
2.303(16) Surface Water Quality.....	41
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	41
2.303(16)(b) Existing Data Monitoring Sources.....	41
2.303(16)(c) Immediate and Long-term Impacts to Surface Water Quantity and Quality.....	42
2.303(17) Groundwater Quality	42
2.303(17)(a) Map and Description of all Groundwater Relevant to the Project.....	42
2.303(17)(a)(i) Seasonal Water Levels in Portions of Aquifer Affected by the Project.....	42
2.303(17)(a)(vii) Existing Groundwater Quality and Classification	43

2.303(17)(a)(viii) Location of all Water Wells Potentially Affected by the Project	43
2.303(17)(b) Description of the Impacts and net Effect of the Project on Groundwater	43
2.303(18) Water Quantity.....	43
2.303(18)(a) Map and Description of Existing Stream Flows and Reservoir Levels Relevant to the Project	43
2.303(18)(b) Map and Description of Minimum Stream Flows Held by the Colorado Water Conservation Board	43
2.303(18)(c) Description of Impacts and net effect on Water Quantity	43
2.303(18)(d) Statement of Methods for Efficient Utilization of Water	44
2.303(19) Floodplains, Wetlands and Riparian Areas; Terrestrial and Aquatic Animals, Plant Life and Habitat.....	44
2.303(20) Soils, Geologic Conditions and Natural Hazards.....	47
2.303(20)(a) Map and/or Description of Soils, Geologic Conditions, and Natural Hazards.....	47
2.303(20)(b) Description of Risks to the Project from Natural Hazards.....	47
2.303(20)(c) Description of Impacts and Net Effect of Project on Soil and Geologic Conditions	47
2.303(21) Hazardous Materials.....	47
2.303(21)(a) Description of Hazardous Materials to be Used for the Project.....	47
2.303(21)(b) Location of Storage Areas and Spill Containment Plans and Structures	47
2.303(22) Monitoring and Mitigation Plan.....	48
2.303(22)(a) Description of all Proposed Mitigation	48
2.303(22)(b) Methodology to Measure Impacts.....	48
2.303(22)(c) Description of Monitoring.....	48
5.201 Application Submission Requirements	49
5.201(1) Vicinity Map of Proposed Site and Surrounding Area, to Include:.....	49
5.201(1)(a) The Area Within a Fifty Mile Radius of the Site.....	49
5.201(1)(b) If New Transmission Line is Proposed, a Map Showing all Transmission Lines Within a Two-Mile Radius of Alternatives Studied.....	49
5.201(1)(c) For Upgrades to Existing Transmission Lines, a Map Showing Existing Transmission Lines Within One Mile	49
5.201(1)(d) For all Other Major Facilities, the Area Within Ten Miles of the Site.....	49
5.201(2) Type of Facility:	49
5.201(2)(a) Voltage and Length of Transmission Line	49
5.201(2)(b) Type of Poles Used, with Graphic Depictions	49
5.201(2)(c) Power Source and Generating Capacity.....	49

5.201(2)(d) The Functions and Size of Substations	49
5.201(2)(e) The Diameters and Lengths of Pipelines	49
5.201(2)(f) Capacities of Storage Tanks and Types of Derivatives to be Stored.....	50
5.201(2)(g) Corridor Locations and Dimensions	50
5.201(2)(h) Service Area	50
5.201(3) Resource Area (i.e. Source of Power Generation)	50
5.201(4) Projected Development Schedule	50
5.201(4)(a) Timetable for Planning (Permits, Zoning, etc.)	50
5.201(4)(b) Estimated Beginning of Construction, Completion of Construction and Beginning of Operation of the Facility.....	50
5.201(5) Hazards and Emergency Procedures:	50
5.201(5)(a) Description of Hazards, if any, Including Fire, Explosion and any Other Dangers to Employees and the General Public.....	50
5.201(5)(b) Describe Hazards of Environmental Damage.....	51
5.201(5)(c) Description of Emergency Procedures	51
5.201(6) Description of Non-structural Alternatives to the Project.....	51
5.201(7) Analysis of Structural Alternatives to the Project.....	51
5.201(8) Description of Need for the Proposed Development:.....	52
5.201(8)(a) Present Population of Area to be Served and Population When Operating at Full Capacity	52
5.201(8)(b) Predominant Type of Users or Communities to be Served.....	52
5.201(8)(c) The Percentage of Design Capacity at Which the System is Currently Operating	52
5.201(8)(d) If Proposal is for a New Facility and the Capacity Exceeds a ten-year Projected Increase in Demand, a Detailed Explanation of the Excess Service Capacity and Cost.....	52
5.201(8)(e) Relationship to the Applicants Long-range Planning and Capital Improvement Programs	52
5.201(8)(f) Description of User Needs and User Patterns to be Fulfilled by the Project..	52
5.201(8)(g) Description of Relationship of the Project to Other Existing and Planned Utility Facilities of a Similar Nature, Other Communication or Energy Generation and Transmission Facilities, Local Government Capital Improvement Programs and Special District Expansion Programs	52
5.201(9) Environmental Impact Analysis.....	53
5.201(9)(a) Land Use:	53
5.201(9)(a)(9)(i) Describe how Proposed Development will use Existing Easements or Rights-of-way for any Associated Distribution or Collector Networks.....	53

5.201(9)(b) Information Regarding Other Utility Facilities:	53
5.201(9)(b)(i) Map Showing Existing Major Facility of a Public Utility within the County of the Type Proposed for Development.....	53
5.201(9)(b)(ii) The Design Capacity of Each Such Facility, the Excess Capacity of Each Such Facility and the Percentage of Capacity at Which Each Such Facility Operates.....	53
5.201(9)(b)(iii) Can Present Facilities be Upgraded to Adequately Accommodate a Ten- year Projected Increase in Demand for Services to be Offered by the Proposed Project	53
5.201(10) For Power Plant Applicants, a Map Locating and Describing Resource Areas to be Utilized as Source of Energy	54
5.201(11) For Applicants Seeking Permit for the Construction of Transmission Lines or Substations:	54
5.201(11)(a) Computer Modeled Electromagnetic Field Measurement Within the Proposed Transmission Line Easement for the Portion of the Transmission Line Between Substations and Transition Sites.....	54
5.201(11)(b) Measures Taken to Comply with the Concept of Prudent Avoidance with Respect to Planning, Siting, Construction and Operation of Transmission Lines	54

2.303(1) Completed Application Form

The application form is attached as **Appendix A: 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 B: 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:

Front Range-Midway Solar Project, LLC
Dave Iadarola, Project Developer
diadarola@tradewindenergy.com
16105 W 113th Street

Lenexa, KS 66219
Fax: (913) 888-0390
Organization Type: a Delaware limited liability company
Business: wind and solar project development

Owner: Front Range-Midway Solar Project, LLC
9070 and 9310 Rancho Colorado Boulevard
Fountain, CO 81008

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 Front Range-Midway Solar Project (Project) is in a development and approval stage. As such, an engineering procurement and construction contractor would be determined at a later date, prior to construction. This information would be provided to the county prior to obtaining a building permit. The Project has enclosed a request for a condition of approval pursuant to Section 2.303 of Appendix B to the EPC Land Development Code (LDC) a waiver of the requirement that the Project 1041 application provide the information requested in criteria 2.303(4)(b) at the time of this application.

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

Not applicable. Front Range-Midway Solar, LLC would be the Project owner.

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

The Front Range-Midway Solar Project, LLC (Project Company) is a fully owned subsidiary of Tradewind Energy, Inc. (TWE). TWE was founded in 2002 in Lenexa, Kansas and has since established itself as a leading wind and solar company with projects in over 20 states throughout the U.S. TWE owns over 6 gigawatts (GW) of wind development assets and 5 GW of solar development assets. TWE's business model develops projects and then transfers those projects to another entity which would construct, own, and operate the Project. TWE has partnered with Enel Green Power North America, Inc. (EGP-NA) on over 3 GW of renewable energy projects throughout the U.S., and EGP-NA is anticipated to be the owner and operator for the Project. EGP-NA is a worldwide leader in renewable energy generation and has constructed projects in 22 U.S. states, and two Canadian provinces. These projects include wind, solar, geothermal, and hydropower technologies. EGP-NA is a subsidiary of Enel which is a publicly traded company.

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

CORE Consultants, Inc. – 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 greenfielding and micro-siting, 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.

West Consultants, Inc. – WEST provided a range of environmental consulting services for the Project. WEST specializes in offering its clients a unique combination of field ecology and statistics to help solve natural resource problems. They have a permanent core of over 140 ecologists, biometricians and support staff with a broad experience in basic and applied ecological studies and the sophisticated analysis of natural resource data. This unique blend of disciplines and their years of experience in both areas allow us to provide original solutions to a wide range of natural resource issues. In particular, WEST has been a leader in impact assessment, monitoring, natural resources research, and permitting of renewable energy development since 1994. They have completed natural resource studies, evaluations, or conservation plans for over 1,700 wind and solar energy projects throughout the U.S. Additionally, WEST has played a leading role in understanding, assessing, and placing into perspective the impacts of renewable projects on wildlife and habitat using scientifically credible and defensible risk assessment, monitoring and research methods. WEST has successfully worked for all stakeholders involved in wind issues, including state and federal agencies, industry, consultants, utilities, and conservation organizations across the U.S. The staff at WEST has also published several wind or solar power-related articles in peer-reviewed scientific journals and books. WEST staff was lead authors on key documents such as "Comprehensive Guide to Studying Wind Energy/Wildlife Interactions" for the National Wind Coordinating Collaborative and were part of the Federal Advisory Committee that made recommendations to help develop the USFWS Land-Based Wind Energy Guidelines.

Centennial Archeology – CA provided cultural and archeological consulting support to the Project. CA was founded in 1984 and for 30 years has successfully conducted archaeological and historical studies throughout the western United States. International projects have been undertaken in Africa, Asia, and South America. CA specializes in the management and supervision of cultural resource projects of any size. CA maintains on its professional staff the following demonstrated expertise: archaeological and historical (including architectural) site survey and documentation; archaeological and historic site significance evaluation; lithic and ground stone artifact analysis; ceramic artifact analysis; faunal analysis; historic artifact analysis; spatial analysis of archaeological data (GIS); technical report production including both writing and technical editing; graphics design and production; and electronic site mapping (all phases from data collection to final map production).

Westwood Professional Services- Westwood provided engineering support to the Project. Westwood was built on a commitment to support its clients with the best quality surveying and

engineering services and products. Embedded in their core services are multi-disciplined teams that specialize in the unique needs of their markets. The expertise of Westwood's solar energy team was established by supporting more than 7 GW of ground mounted, commercial rooftop, and solar and storage projects since 2010. Westwood supports the permitting, design and construction of their client's projects. Westwood's expertise in successfully handling complex projects is recognized across the nation.

2.303(5) Information Describing the Project

2.303(5)(a) Vicinity Map

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

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

The Project would consist of a 100.2 megawatt (MW) distributed generation photovoltaic (PV) solar facility that would encompass approximately 1,170 acres in El Paso County (EPC), Colorado. The Project is located west of Interstate-25 (I-25) approximately 20 miles south of downtown Colorado Springs on private and county owned lands secured by the Project through direct ownership, lease and easement agreements. The Project is bounded on the west by county lands and by dispersed residential development to the northwest and southwest, by rangeland to the north, by a gravel pit to the east, and by the Midway Waste Management Landfill to the south (**Appendix C**). Other facilities in the near vicinity include the Pikes Peak International Raceway approximately 1.5 miles to the north and the Fort Carson Military Reservation approximately one mile to the west.

The purpose of the Project is to construct, operate, and maintain a 100.2-MW photovoltaic solar facility to provide clean, cost effective, renewable energy to one or more public utility companies operating within EPC. The need for the Project was established by multiple factors including local and state statutes including Colorado's renewable energy standard (RES) statute (Section 40-2-124, C.R.S) which requires 30% of retail energy sales to be derived from renewable generation from investor owned utilities and 10% for large municipal utilities by the year 2020. 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. 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. Two existing substations are located in the southwestern portion of the proposed Project boundary; however, the substation properties are not included within the proposed Project Wind/Solar Energy Generation Overlay (WSEO) boundary. The Midway substation is operated by the Western Area Power Administration (WAPA), a federal power marketing agency within the U.S. Department of Energy (DOE) and the Public Service Company of Colorado (PSCo) substation is owned by Xcel Energy. Three public utility transmission lines converge at the Midway substation including Black Hills, CSU, and Tri-State. The PSCo substation is directly adjacent to the WAPA substation. The Project currently has executed interconnection agreements in place with WAPA and PSCo (**Appendix D: Interconnection Agreements**).

EPC has agreed to review this 1041 application in anticipation of one or more of the aforementioned public utilities issuing RFPs for solar generated electricity in the near future. Upon approval of the Project by the EPC Board of County Commissioners (BOCC), it is anticipated that construction would commence

once a Power Purchase Agreement (PPA) is in place. The Project has submitted a request for a condition of approval a waiver of the requirement that a zoning applicant provide a PPA at the time of an application for the Project WSEO pursuant to Section 2.303 of Appendix B to the EPC LDC.

The Project scope includes the installation of single axis tracking solar PV panels, DC to AC Inverters, pad mount transformers, switches, meteorological stations, a new aboveground transmission line connecting the Project to the WAPA or PSCo substations, located adjacent to the Project site, and underground collection lines

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

The Project site encompasses approximately 1,170 acres. PV solar panels would 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 is sent to inverters located throughout the array that would convert the electricity from direct current to alternating current. A series of underground electric collection lines would transfer the electricity from the inverters to a Project substation, from which an overhead electrical transmission line would then transfer the electricity to the Midway or PSCo substation (**Appendix E: Preliminary Site Plan; Appendix F: WSEO Overlay Plan**). The Midway complex is made up of the WAPA substation where WAPA, Black Hills, CSU, and Tri-State transmission lines converge. The PSCo substation, owned by Xcel Energy, is directly adjacent to Midway and is electrically connected to WAPA. Presently, the Project does not have a PPA in place. However, EPC has agreed to review this 1041 application in anticipation of one or more the aforementioned public utilities issuing RFPs for solar generated electricity in the near future. The Project has submitted a request for a condition of approval a waiver of the requirement that a zoning applicant provide a PPA at the time of an application for the Project WSEO pursuant to Section 2.303 of Appendix B to the EPC LDC.

2.303(5)(d) Description of Alternatives Considered

Finding locations where large amounts of electricity generation can be injected into the transmission grid is difficult. Prior to commencing the application process to develop this site, numerous analyses were conducted on potential sites throughout Colorado to assess feasibility. Prior to selecting the Project site location, the Project identified and analyzed approximately 20 site locations within El Paso County for utility-scale solar development feasibility. The analysis began with a desktop review of multiple layers of GIS data to identify sites characterized by large (1,000 acres), open tracts of land, with minimal slope, free of environmental constraints and in close proximity to electrical power transmission. Site reconnaissance were then conducted to verify the desktop analysis and to further analyze these alternative locations. Of the approximately 20 site locations analyzed, the Project site location was selected due to its location adjacent to two substations where available capacity was anticipated. In addition, several transmission lines transect the Project site location. Co-locating utility-scale solar development with existing electrical power transmission infrastructure significantly reduces a Project's environmental and visual impacts.

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

Preliminary Project development began in 2014, at which point it was determined what land would be needed to accommodate the Project design. EPC discussions on permitting requirements commenced at this time. At present, there is no PPA between the Project and any utility offtakers. It is anticipated that a

PPA would be executed between the Project and a utility associated with one of the entities with service to the local substations. The Project has submitted a request for a condition of approval a waiver of the requirement that a zoning applicant provide a PPA at the time of an application for the Project WSEO pursuant to Section 2.303 of Appendix B to the EPC LDC. Since the WAPA substation is a federal entity, an interconnection agreement between the Project and the WAPA substation established a federal nexus. As such, approval of an interconnection agreement between the Project and the WAPA substation required National Environmental Policy Act (NEPA) review with the Department of Energy (DOE) acting as the lead agency in the review. NEPA review of the Project interconnection with the WAPA substation commenced in late 2015. In 2016, the DOE issued a Finding of No Significant Impact (FONSI) for the Project (**Appendix G: Project FONSI and Fort Carson Approval Letter**). At present, design of the Project and county permitting is underway. It is anticipated that upon Project approval by the EPC Board of Commissioners (BOCC), a PPA with one or multiple public utilities could be under negotiation. It is expected that the Project would be approved in early 2018 and that construction could begin as early as the spring of 2019. The life expectancy for the Project to provide renewable energy is 25 years at a minimum and 35 years at a maximum.

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

The need for the Project was established by multiple factors including local, state, and federal statutes. The Colorado RES statute (Section 40-2-124, C.R.S) requires electricity providers to obtain a minimum percentage of their power from renewable energy resources. This Project would support Colorado power providers in achieving that state required standard. Multiple utilities along the Front Range have issued RFPs for solar renewable energy sources to satisfy those local, state, and federal statutes. The Project would satisfy those RFPs issued by supplying 100.2 MW of solar produced renewable energy to be distributed to utility customers along the Front Range.

Finding locations where large amounts of electricity generation can be injected into the transmission grid is difficult. Prior to commencing the application process to develop this site, numerous analyses were conducted on potential sites throughout Colorado to assess feasibility. Prior to selecting the Project site location, the Project Company analyzed approximately 20 site locations within El Paso County for utility-scale solar development feasibility. The analysis began with a desktop review of multiple layers of GIS data to identify sites characterized by large (1,000 acres), open tracts of land, with minimal slope, free of environmental constraints and in close proximity to electrical power transmission. Site reconnaissance were then conducted to verify the desktop analysis and to glean additional information. Of the approximately 20 site locations analyzed, the Project site location was selected due it its location adjacent to two substations where available capacity was anticipated.

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.

- Trees would either be cleared outside of the nesting raptor season (April 1 – July 15); or surveys would be conducted by a qualified biologist prior to commencing construction. There is potential for ground-nesting migratory birds to nest past July 15. Ground nesting birds can be cryptic depending on species and ground cover. As such, a qualified biologist would determine if ground clearance surveys are necessary should initial ground disturbing activities occur past July 15.
- Black tailed prairie dog (State Species of Concern) was identified on the Project Site. Prairie dog colonies are potential habitat for burrowing owl (State Threatened). Per CPW recommendations, the prairie dogs would be relocated prior to commencing earth-moving activities. If a relocation site is not available, prairie dogs would be humanely treated prior to construction. CPW issued additional Project-specific recommendations since the first submittal of the Project WSEO application. The Project has issued a response letter which is appended to the original USFWS and CPW correspondence (**Appendix M**).
- The Project understands that there is suitable habitat on the site for nesting raptors, ground nesting grassland species, and other species of state status or state concern including burrowing owl and mountain plover. Additionally, the Project understands there is potential for the presence of denning swift fox on the Project. As such, the Project has committed to conducting pre-construction surveys to confirm the presence or absence of any of the above listed state status, state species of concern, or nesting birds. Project correspondence with the USFWS and CPW is included in **Appendix M**.
- Should pre-construction surveys locate nesting burrowing owls, active nests would be avoided until after the owls have migrated from the area. A qualified biologist would perform the pre-construction surveys and monitor any burrowing owls identified during construction
- Project construction would avoid the isolated stock pond located in the north central portion of the Project. In addition, Project construction would avoid any drainages on the Project that convey significant flows during precipitation events.
- Project construction would avoid two potential archeological sites identified during the NEPA process. These sites identified in the Class III Cultural Resources Inventory (Appendix L) are identified on maps included in **Appendix F: WSEO Overlay Plan** and **Appendix A8: Physical Constraints Map**.

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

- Non-native vegetation and noxious weeds would be managed on the Project site as required for Project operation; management would follow methods described in the Project-specific Noxious Weed Management Plan (**Appendix H: Noxious Weed Management Plan**). Revegetation methods would 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, would 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 would be detailed during the Site Development Plan phase. Operations would require regular mowing to prevent shading of the solar panels.

- Project lighting would be limited to inverter pads and the Project substation and would be downcast to preserve the night sky and limit potential effects on nocturnal wildlife (**Appendix I: Summary of Project Lighting Memo and Lighting Plan**).

Additional information on specific BMPs to be used during construction would be documented in the Project Stormwater Management Plan (SWMP) and Spill Prevention, Control, and Countermeasure (SPCC) Plan that would be developed prior to construction and would 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 would produce 100.2-MW of power at full capacity. The anticipated operational life expectancy of the Project is 25 years at a minimum and 35 years at a maximum. Over the life of the Project, power generated would support public power providers in achieving the standard set forth by the Colorado RES statute. Potential utility offtakers include Black Hills, Colorado Springs Utilities (CSU), Tri-State G&T, Xcel, and WAPA. All utilities (except WAPA) have been active buyers of solar power within the past three years and are seeking to purchase additional power produced through solar facilities. Presently, there is no PPA in place. However, EPC has agreed to review this 1041 application in anticipation of one or more of the aforementioned public utilities issuing RFPs for solar generated electricity in the near future. The Project has submitted a request for a condition of approval a waiver of the requirement that a zoning applicant provide a PPA at the time of an application for the Project WSEO pursuant to Section 2.303 of Appendix B to the EPC LDC.

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

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

2.303(6) Information Describing the Project

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

The Project would be constructed on private and county owned lands secured by the Project through direct ownership, lease and easement agreements. Mineral right holders within the Project area were mailed a preliminary notice in December 2017 regarding the Project and advising them of their right to comment or obtain information from the County (**Appendix B**). At that time, the hearing date had not been scheduled. Once an initial public hearing has been scheduled, the Applicant will mail an additional notice via certified mail, return receipt requested to mineral rights owners in the Project area and those requesting notice at least 30 days prior to the hearing providing the date, time and location of the hearing, the location of the project, name of the applicant and notice that the public will be given the opportunity to comment on the Project at the Planning Commission and BOCC public hearings. Adjacent landowners within 500 feet of the Project boundary have been noticed of upcoming public hearings with no specific dates. Once dates are scheduled for the Planning Commission and BOCC public hearings, the Applicant will work with the County to make sure that all applicable adjacent landowners and mineral rights owners are properly noticed of the scheduled hearing and their opportunity to comment.

The Project could potentially cross multiple easements located on the property (**Appendix A7: Site Plan with Easements**) however the actual location of crossings would not be known until the Site Plan Development stage. The Applicant has submitted a request for a waiver of the requirement to provide crossing agreements. Instead, Applicant requests easement crossing agreements be accepted by the County prior to the ground disturbance of each crossing. Since obtaining easement crossing agreements

can require extensive and lengthy coordination with the easement holder, this condition would ensure that the necessary agreements are in place prior to each easement crossing without delaying the overall construction for the Project. Easement crossing locations would be provided at the Site Development Plan stage.

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. Permits that may be required for the Project are included in **Table I.** below.

Table I. *Front Range-Midway Solar Project Permits*

	Agency	Permit	Notes
Federal			
	U.S. Army Corps of Engineers (USACE)	Nationwide Permit 51 (Land-based renewable energy generation facilities)	No Waters of the U.S. (WOUS) are located on the Project site. It is not anticipated that a nationwide permit would be required.
	USACE	Nationwide Permit 12 (Utilities; i.e. power lines and collection systems)	No WOUS are located within the transmission line corridor. It is not anticipated that a nationwide permit would be required.
	U.S. DOE, WAPA	The NEPA requires FONSI by lead agency (DOE); DOE must consult with State Historic Preservation Office (SHPO), U.S. Fish and Wildlife Service (USFWS), Colorado Parks and Wildlife (CPW), Farm Service Agency (FSA)	A review of the Project Final Environmental Assessment resulted in a Finding of No Significant Impact (FONSI) awarded September 21, 2016 (Appendix G)
State			
	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.
County			
	EPC	WSEO Generation Plan Overlay	The WSEO application for the Project is currently under review by EPC.

	EPC	Site Development Plan	Administrative approval of Site Development Plans would be required for the Project.
	EPC	Construction Permit	Permit would be obtained prior to Project construction.
	EPC	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.
	PPRBD	Floodplain Development Permit	Not anticipated; no floodplains located in the Project.

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 Project would potentially require an interconnection to the Midway substation operated by the Western Area Power Administration (WAPA), a federal power marketing agency within the U.S. Department of Energy (DOE). Since the WAPA substation is a federal entity, an interconnection agreement between the Project and the WAPA substation would establish a federal nexus. As such, approval of an interconnection agreement between the Project and the WAPA substation requires National Environmental Policy Act (NEPA) review with the Department of Energy (DOE) acting as the lead agency in the review. NEPA review of the Project interconnection with the WAPA substation commenced in late 2015. Western Ecosystems Technology, Inc. (WEST) was contracted to evaluate the Project's potential impact on multiple resources including, but not limited to: public health and safety, air quality; water, vegetation, wildlife, special status species and cultural resources (**Appendix K: Final Environmental Assessment**). The Final Environmental Assessment (EA) identified no significant impacts to environmental resources resulting from the Project. The draft EA was distributed to interested agencies, tribes, groups, and individuals on July 19, 2016 and received no comments during the comment period. Based on the information presented in the EA, WAPA issued a FONSI for the Project (**Appendix G**). Further, WAPA determined that the Project incorporated WAPA's Standard Construction Practices and Best Management Practices (BMPs). As such, WAPA determined that the Project would not result in potential impacts that would be considered significant and no mitigation measures would be required additional to those embedded within the Project description. In addition, the Project conducted a voluntary public scoping effort between August 5, 2015 and September 10, 2015 during which interested parties located proximally to the Project could provide comments. Fort Carson Military Base (Fort Carson) is located approximately 1.5 miles to the west of the Project and was given the opportunity to comment on the Project during the public scoping effort. Fort Carson personnel did not oppose the Project. In addition, the Army Compatible Use Buffer Program, which gives Fort Carson the right of first refusal for any potential development on the 120 acres of EPC owned land within the Project, was discussed during the public scoping effort. Based on an agreement between EPC and Fort Carson, EPC must receive approval from Fort Carson prior to permitting any development action on those 120 acres.

Fort Carson issued a letter stating their approval of Project development on the 120 acres of EPC owned land on March 13, 2017 (**Appendix G**).

Centennial Archaeology (CA) performed an intensive Class III Cultural Resources pedestrian survey of the Project in 2015 (**Appendix L: Class III Cultural Resources Inventory**). The survey identified 32 isolated finds and six new sites. The isolated finds were considered prehistoric in nature and consisted of either single occurrences or small quantities of debitage; i.e., the material produced as the result of manufacturing chipped stone tools and lithics reduction. Two sites were determined by CA to be potentially eligible for listing on the National Register of Historic Places (NRHP). The Project activities would avoid the potentially eligible sites as shown in **Appendix F: WSEO Overlay Plan** and **Appendix A8: Physical Constraints Map**. The remaining four sites and isolated finds were deemed ineligible by CA for NRHP listing. CA did not recommend further investigation of the remaining items. SHPO concurred with this finding (**Appendix K**).

The Project Company solicited input from the USFWS on July 16, 2014 for comments on the Project's potential to impact federally threatened and endangered species (TES). The USFWS responded on July 29, 2014 with recommendations for mitigation measures to avoid impacts to federal TES, migratory birds and bald and golden eagles, and state species of concern (SOC). USFWS correspondence included recommendations to avoid impacts to migratory birds and eagles, and state species of concern (**Appendix M: Wetlands, Waterbodies, and Threatened, Endangered, and Species of Special Concern Report; USFWS and CPW Correspondence**). Specifically, the USFWS recommended Project construction occur outside of the typical breeding season for migratory birds. If construction must occur during breeding season or at any other time that may result in take of a migratory bird, then pre-construction field surveys are recommended. The USFWS also recommended the Project observe CPW's *Recommended Buffer Zones and Seasonal Restrictions for Colorado Raptors*, review the Avian Power Line Interaction Committee's (APLIC) guidelines to address and mitigate wildlife-power line electrocutions, and conducting pre-construction surveys for black-tailed prairie dogs (*Cynomys ludovicianus*) and their dependent sensitive species. The Project is committed to conducting avoidance and minimization measures to minimize impact to species. USFWS recommendations are included below (**Appendix M**).

- Construction should occur outside of the typical breeding season for migratory birds in Colorado; highest levels of activity occur between April 1 and July 15. If construction occurs during this seasonal period, the USFWS recommends that a qualified biologist conduct pre-construction surveys to identify active nests and/or confirm the absence of nesting birds. USFWS does note that the migratory bird nesting season may continue after July 15. The Project would conduct ground clearance surveys prior to new ground-disturbing activities through August 15 as determined necessary by a qualified biologist. Additionally, the Project should follow the CPW protocol *Recommended Buffer Zones and Seasonal Restrictions for Colorado Raptors* should surveys identify active nesting raptors within or adjacent to the Project.
- To avoid electrocution to eagles and some raptors, the Project should bury distribution lines or build overhead electrical lines with at least 10-foot cross arms on three phase line, or at least five feet of spacing between electrical phases.
- Consult with CPW regarding the potential for the occurrence for SOC on the Project, including black-tailed prairie dogs and burrowing owl.

The Project solicited input from CPW for comments on the Project's potential to impact state TES and SOC. CPW responded on August 25, 2014 with general comments on state TES and SOC included in the desktop review and recommendations for mitigation measures to avoid impacts to state TES and SOC (**Appendix M**). CPW issued additional Project-specific recommendations since the first submittal of the Project WSEO application on October 24, 2017. The Project issued a letter of response detailing avoidance measures on January 2, 2018 (**Appendix M**). The latest CPW recommendations and Project responses are summarized below:

CPW Recommendation

CPW recommends the habitat with water on the Project area remain undisturbed and contiguous with undeveloped and around it. CPW would be happy to work with FRMW and consultants to help identify potential layouts within the proposed footprint that would avoid or minimize potential impacts to these species.

Project Response

A wetlands survey was completed for the Project site in 2015. The study identified a single water feature: a stock pond created by damming a dry drainage way on site. The stock pond did not include characteristics of jurisdictional waters, but Project infrastructure would avoid the water feature and surrounding area nonetheless. Project design is still preliminary, but it is anticipated that the Project fence line would be setback, at minimum, approximately 150 feet from the stock pond.

CPW Recommendation

CPW prefers that native vegetation be retained on-site during the operational lifespan of the Project. Proper reclamation, from a wildlife perspective, involves not only stabilizing the soil and establishing ground cover, but fostering plant communities with a diversity of species and plant types which will fully serve the nutritional needs of wildlife. Strict adherence to the NRCS's recommendations is advised. CPW would appreciate the opportunity to review the Project's Noxious Weed Management Plan prior to construction.

Project Response

The local Natural Resources Conservation Service - El Paso County office reviewed the Project's noxious weed management plan and commented that they were satisfied with the noxious weed management plan. The noxious weed management plan is available for review on the El Paso County Development Application Review website. Per the noxious weed management plan, the site would be re-vegetated with a native seed mix. Site stabilization would be monitored per the SWMP and the Grading and Erosion Control (GEC) Plan, which requires that the site be monitored after construction until vegetation on lands disturbed during construction is restored to reach 70 % coverage

CPW Recommendation

CPW recommends a smooth top to the fence to prevent wildlife from impaling themselves. If wildlife exclusion fencing is installed CPW would request that the solar facility is checked regularly or structures are installed to allow animals to escape, in the unlikely event that a deer or other wildlife become trapped in the facility.

Project Response

The Project would utilize security fence with barbed-wire strands to prevent trespassing and minimize the risk of electrocution. The security fence would be a total of seven feet in height and include six feet of chain link fencing and one foot of barbed wire strands. The security fence would also act as exclusion fencing to keep wildlife out. Per the CPW *Fencing with Wildlife in Mind*, a 7- to 8-foot fence is an effective barrier to deer and elk. Operation and maintenance staff would routinely visit the site and would be trained to contact the CPW – District Wildlife Manager if trapped wildlife within the Project site cannot be easily released.

CPW Recommendation

CPW recommends that new lines follow existing transmission line infrastructure corridors wherever possible. Also recommend that FRMW consult "Suggested Practices for Avian Protection on Power Lines, the State of the Art in 2006" and the "Reducing Avian Collisions with Power Lines: The State of the Art in 2012" for proper design considerations to minimize raptor electrocution.

Project Response

The Project substation would tie in to one of two existing substations within the Project boundary via a new Project transmission line. The Project transmission line would be located entirely within the Project area; the length would be determined prior to construction, but would not exceed approximately 1,500 feet. The Project transmission line would be located immediately adjacent to existing transmission lines. See **Appendix A6: Existing Transmission Lines Map**. The Project would consult the cited documents for proper design considerations to minimize raptor electrocution.

CPW Recommendation

Consultation with US Fish and Wildlife Service (USFWS) is recommended to ensure compliance with the MBTA and the BGEPA. Surveys for active nests should occur prior to construction should construction occur during the breeding and nesting season.

Project Response

The Project has been developed in coordination with the USFWS. A July 29, 2014 response letter from USFWS included several recommendations for the Project. The recommendations were reviewed and in 2015, a qualified third-party biologist was engaged to conduct a threatened and endangered species survey for the Project. The resulting study is available for review on the El Paso County Development Application Review website. If Project construction occurs during the nesting season, between March 1 and October 31, additional surveys would be conducted so that appropriate avoidance and minimization measures can be implemented during construction.

CPW Recommendation

There is suitable habitat on the site for nesting raptors. CPW recommends the use of preconstruction surveys, as well as continuation of those surveys during construction, to identify all raptor nests within the Project area and implement appropriate restrictions. CPW recommends adherence to the "Recommended Buffer Zones and Seasonal Restrictions for Colorado Raptors".

Project Response

The Project has noted in the WSEO Letter of Intent (LOI) that if construction occurs between March 1 and October 31, pre-construction surveys would be conducted so that avoidance and minimization measures can be implemented during construction. The WSEO LOI is available for review on the El Paso County Development Application Review website.

CPW Recommendation

CPW recommends taking special precautions regarding burrowing owl, black-tailed prairie dog, swift fox, mountain plover, Townsend's big eared bat, and northern leopard frog.

Project Response

Based on the threatened and endangered species study completed for the Project in 2015, black tailed prairie dog (State Species of Concern) was identified on the Project Site. Prairie dog colonies are potential habitat for burrowing owl (State Threatened). Per previous CPW recommendations, the prairie dogs would be relocated prior to commencing earth-moving activities. If a relocation site is not available, prairie dogs would be humanely treated prior to construction. Furthermore, the Project would follow CPW recommended measures to avoid impact to the burrowing owl. If construction occurs between March 1st

and October 31st, the site would be surveyed for the presence of burrowing owls prior to commencing earth-moving activities. If burrowing owls are identified, their habitat would be avoided until after the owls have migrated from the area. A qualified biologist would perform the pre-construction surveys and monitor any burrowing owls identified during construction. Swift fox have the potential to occur in the Project area; however, by relocating or humanely eradicating black tailed prairie dogs prior to commencing construction, the likelihood for swift fox occurrence within the Project area would be minimized. Roosting habitat for Townsend's big-eared bat was not identified within the Project area; however, the species could use the stock pond on site to forage. The stock pond on-site would not be impacted by Project infrastructure. Suitable habitat for the northern leopard frog was not identified on the Project site.

2.303(7) Land Use

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

The majority of the Project is zoned RR-2.5 (Residential Rural). Parcels are approximately 2.5 acres within this zoning designation. Land to the northwest of the WAPA and PSCo substation is zoned RR-5 (Residential Rural); RR-5 is designated rural-residential parcels that are five-acres in size. A single parcel located south of the WAPA and PSCo substation is zoned I-3 (Heavy Industrial); a Southwest Generation natural gas-fueled electric generation unit is located on this parcel (**Appendix N: El Paso County Zoning Map**).

The submittal of this 1041 application and accompanying WSEO request would allow for the overlay of a solar generation facility within the parcels zoned RR-2.5, RR-5, and I-3 within the proposed WSEO boundary. Since a solar facility is considered an activity of state interest, this 1041 Permit application is being submitted as part of the rezoning application process.

The 2011 National Land Cover Database depicts small portions of developed-high, medium, and low intensity at the existing substations, natural gas-fired power plant, and existing county roads (**Appendix O: Land Use/Land Cover Map**). The proposed transmission line would be located within the Project boundary (**Appendix E**).

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

Public land has been leased for the Project. The solar arrays would be located on lands held by the Project; Fountain Valley Power, LLC; SWG Fountain Valley II LLC; Public Service Company of Colorado, Powell Homes, LLC; El Paso County; and Midway Development Company, Inc. The WAPA substation is located on federal lands administered by the Department of the Interior (DOI) Bureau of Reclamation. Public lands in the vicinity include state land board lands to the south and northeast, the Fort Carson Military base to the west, and the Clear Spring Ranch Regional park to the north (**Appendix P: Public Lands Map**). The Project would not negatively impact public lands.

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 EPC 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 EPC. 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 and the applicable SAP (South

Central Comprehensive Plan). The following is a summary of key elements of the CPP, and the South Central Comprehensive Plan (SCCP) with a detailed discussion of those elements of both plans 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.

CPP 1.0 Small Area Plans

EPC has developed SAPs to provide a framework for development within areas of the County that have similar land use patterns. The Project is proposed within the portion of EPC that is addressed under the SCCP. The SCCP provides a framework for potential growth and development in the South Central Area. Additionally, the South Central Area is divided further into planning districts to allow for planning and development that is more specifically appropriate for the unique characteristics of particular areas within the South Central Area. The Project is located within the West Area planning district. The Project's conformance to the relative goals and policies of the West Area planning district are discussed below, following this discussion detailing the Project's conformance to the CPP.

Policy 1.1.5 Specifically encourage the active participation of affected municipalities in the development of new and revised SAPs.

The Project would endeavor to participate in revisions to SAPs when applicable to affected Project land uses in unincorporated EPC.

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 would not contribute to the pollution in the area. Construction and operation activities would be planned to minimize and mitigate any negative effects to the environment.

The Project has taken a conservative approach to due diligence by conducting multiple environmental studies and coordinating with the appropriate regulatory agencies including CPW and the USFWS. In 2013, the Project conducted a Critical Issues Analysis (CIA) and submitted it to the USFWS and CPW for concurrence in 2014 (**Appendix Q: Critical Issues Analysis**). Both agencies provided feedback; and in 2015, wetlands, threatened and endangered species and cultural resource field surveys were conducted (**Appendix M**). Both the USFWS and CPW had the opportunity to comment on the WSEO application initially submitted by the Project on October 24, 2017. Additional comments were provided by CPW, and the Project issued a letter of response detailing avoidance measures on January 2, 2018 (**Appendix M**).

The Project would potentially require an interconnection to the Midway substation operated by the Western Area Power Administration (WAPA), a federal power marketing agency within the U.S. Department of Energy (DOE). Since the WAPA substation is a federal entity, an interconnection agreement between the Project and the WAPA substation established a federal nexus. As such, approval of an interconnection agreement between the Project and the WAPA substation required National Environmental Policy Act (NEPA) review with the Department of Energy (DOE) acting as the lead agency in the review. NEPA review of the Project interconnection with the WAPA substation commenced in late 2015 and evaluated the Project's potential impact on multiple resources including, but not limited to:

public health and safety, air quality; water, vegetation, wildlife, special status species and cultural resources. The NEPA review concluded with a Finding of No Significant Impact (FONSI) issued on September 21, 2016. (**Appendix G**)

2.1 Air Quality

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 would be utilized to spray disturbed areas to minimize dust emissions. The Project would submit an Air Pollutant Emissions Notice (APEN) prior to the start of earth moving activities, in accordance with the EPC Land Development Code Section 6.3.1 and as outlined in the Project Air Quality Management Plan (**Appendix R: Air Quality Management Plan**).

2.2 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.

During the construction phase, noise would not exceed decibel levels listed in the EPC Noise Ordinance. 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 comply with EPC regulations. Haul routes would lead directly from the Project to Interstate 25 and would not impact or increase noise on County Right of Way (ROW). A Haul Route Plan has been prepared as part of the Transportation Memo (**Appendix S: Transportation Memorandum, Haul Route Plan, and Traffic Data Collection**).

Solar panels themselves are silent, however inverters do emit sound. The sound emitted from an inverter has a similar intensity as an air conditioner and the sound dissipates significantly and quickly with distance. It is unlikely that a person standing outside of the perimeter fence line would be able to distinguish sound emitted from the inverters.

2.3 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 contracted Western Ecosystems Technology, Inc. (WEST) to prepare a *Wetlands, Waterbodies, and Threatened, Endangered, and Species of Special Concern Report* in August of 2015 (**Appendix M**). The findings of this report were included in the NEPA review completed for the Project, which concluded in a FONSI on September 21, 2016 (**Appendix G**).

No federally listed species or their associated habitat were identified at the Project site. Black tailed prairie dog (State Species of Concern) was identified on the Project Site. Prairie dog colonies are potential habitat for burrowing owl (State Threatened). Per CPW recommendations, the prairie dogs would be relocated prior to commencing earth-moving activities. If a relocation site is not available, prairie dogs would be humanely treated prior to construction. CPW issued additional Project-specific recommendations since the first submittal of this WSEO application. The Project has issued a response letter which is appended to the original USFWS and CPW correspondence. The Project understands that there is suitable habitat on the site for nesting raptors, ground nesting grassland species, and other species of state status or state concern including burrowing owl and mountain plover. Additionally, the Project understands there is potential for denning swift fox on the Project site. As such, the Project has committed to conducting pre-construction surveys to confirm the presence or absence of any of the above listed state status, state species of concern, or nesting birds. Project correspondence with the USFWS and CPW are included in **Appendix M**.

According to USGS National Land Cover Database, the primary cover type in the Project area is grassland/herbaceous with a small area of scrub/shrub.

Vegetation that would be temporarily impacted by construction would be reseeded following construction with a native seed mix. Reseeded areas would be protected from erosion with appropriate best management practices (BMPs). Revegetation methods would 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, would 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 would be detailed during the Site Development Plan phase.

2.4 Noxious Weed Control and Revegetation

The Applicant contracted CORE Consultants, Inc. (CORE) to prepare a *Noxious Weed Management Plan* (**Appendix H**). Pre-construction surveys and treatment would conform to applicable EPC requirements for noxious weed control and management. Revegetation of the site, where possible, would occur following construction following procedures outlined above.

2.5 Wetlands

The potential for the presence of Waters of the U.S. (WOUS) was described in the *Wetlands, Waterbodies, and Threatened, Endangered, and Species of Special Concern Report* (**Appendix M**). No WOUS are located on the Project. Some non-jurisdictional drainages are located on the Project. Specifically, some non-jurisdictional headwaters to a tributary of Fountain Creek are located in the north central portion of the Project and coincide with the stock pond located on the Project. The Project understands that these headwaters provide drainage capture for the watershed. As such, solar arrays and facilities would avoid these headwaters and stock pond. In addition, the Project has committed to avoiding any drainages on the Project that convey significant flows during precipitation events. The Project security fencing would be located south of the stock pond and headwaters (**Appendix A8: Physical Constraints Map**).

2.6 Hazardous Materials

Construction, operation and maintenance activities would comply with applicable local, state and federal laws and regulations regarding the use of hazardous substances. There would be no significant amounts of hazardous materials stored in the right-of-way or at temporary staging sites. 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 would be maintained on site as required. Operational personnel would follow guidelines posted in the *Project Operations and Maintenance Plan (Appendix T: Operations and Maintenance Plan)*. The Applicant has prepared a *Decommissioning Plan* to ensure Project components are disposed of properly at the termination of Project operations (**Appendix U: Decommissioning Plan**).

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

The Project would acquire the applicable construction permits, adhering to federal air and water regulations. The Project would submit an APEN prior to earth disturbing activities in accordance with EPC Land Development Code Section 6.3.1 and as detailed in the *Project Air Quality Management Plan (Appendix R)*. The solar generation facility would not require operating air or water permits.

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 Project Company contracted CORE to complete a Preliminary Drainage Report for the Project (**Appendix V: Preliminary Drainage Report**). The report identified major and minor drainage basins in the Project. The Project would not impact historic flow rates of major or minor drainage basins within the Project; stormwater detention would be designed to maintain historic flow rates within the Project drainage basins (**Appendix V**). The SWMP, GEC Plan, and SPCC Plan would be completed prior to construction and would include both temporary and permanent BMPs to prevent any erosion and sedimentation to drainage basins within the Project. The SWMP and GEC would be submitted as part of the application for an EPC Erosion and Stormwater Quality Control Permit (ESQCP) prior to construction.

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 would have negligible impacts on water quantity. It is anticipated that the solar panels would require washing twice a year. This would require approximately 22,000 gallons per year that would be tapped from the Wigwam Mutual Water Company (WMWC). The WMWC issued a letter stating their commitment and ability to provide water for the Project (**Appendix A9**). Water would be pumped from

the Fountain Creek Alluvial Aquifer, which is considered a renewable water resource under the EPC 300-year water supply rules. A WMWC water line traverses the Project site; the Applicant procured three taps from the WMWC for use during construction and operations.

The Applicant has reviewed the PPACG 208 Plan and determined that the Project would cause minimal to no impact to ground or surface water surrounding the Project. The Applicant would follow BMPs that would prevent erosion and sedimentation to the Fountain Creek watershed (**Appendix V**). The Project would not discharge materials into Fountain Creek or any associated tributaries. Headwaters to a tributary of Fountain Creek are located in the north central portion of the Project that coincide with the stock pond located on the Project. Solar arrays and Project facilities would avoid these headwaters. No fill would be placed within these drainages. A GEC Plan, SWMP, and SPCC Plan would 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.

Centennial Archaeology (CA) performed an intensive Class III Cultural Resources pedestrian survey of the Project in 2015 (**Appendix L**). The findings of this report were included in the NEPA EA completed for the Project, which concluded in a FONSI (**Appendix G**). The survey identified 32 isolated finds and six new sites. The isolated finds were considered prehistoric in nature and consisted of either single occurrences or small quantities of debitage; i.e., the material produced as the result of manufacturing chipped stone tools and lithics reduction. Two sites were determined by CA to be potentially eligible for listing on the NRHP. The Project activities would avoid the potentially eligible sites (**Appendix A8**). The remaining four sites and isolated finds were deemed ineligible by CA for NRHP listing. CA did not recommend further investigation of the remaining items.

CPP 5.0 Economic Development

The Project would benefit local businesses in EPC during Project construction. Construction of the Project would positively impact short-term regional growth in EPC. Population growth and development in EPC are likely to continue regardless of whether the Project is approved. Significant tax revenues from this Project would benefit the local taxing jurisdictions and in some instances, would decrease taxation to certain local home owners.

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

The Project itself offers an increase to the local tax base which could be utilized by the local taxing jurisdiction to promote economic development. The production of additional solar energy to the grid provides a diversified energy source for local utilities requesting alternative energy choices.

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 EPC during Project construction. Construction of the Project could positively impact short-term regional growth in EPC. Population growth and development in EPC are anticipated to continue regardless of whether the Project is approved.

The Project would be located solely within property owned or leased by the Project Company and should not interfere with adjoining land uses. The Project has been sited and designed to reduce impacts to the environment and existing infrastructure.

Electricity created by the Project would be sold to a utility at a fixed rate for the term of the Project. While this rate could start out slightly higher than other current sources of electricity the price would be locked in for the life of the of the Project which would help hedge against cost increases from generation sources that are subject to commodity pricing risk.

Once operational, the Project would provide renewable solar energy infrastructure to support growth and development in an environmentally sensitive way.

Policy 6.1.1: Allow for a balance of mutually supporting interdependent land uses, including employment, housing and services in the more urban and urbanizing areas of the County.

The proposed use would allow for solar development on the property without negatively impacting the existing topography, transportation infrastructure or utility systems in the area and provides the benefit of emission free renewable energy. Solar development of the Project site would not impact the land use of the surrounding area.

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 fits within the predominantly industrial uses in the immediate area and allows for the developer to locate the solar arrays near existing utility infrastructure. The Project is consistent with existing utility development at the site.

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

Solar energy generated by the Project can tie in to one of two existing substations (WAPA or PSCo) located adjacent to the Project.

The Applicant would coordinate with landowners to mitigate any reasonable visual impact concerns identified.

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 would be an unmanned facility. Due to the limited required maintenance and remote electronic monitoring of the facility, the proposed use would not negatively affect the existing transportation network, nor create a high demand on public services or facilities. The Applicant has developed an *Emergency Response Plan* (**Appendix W: Emergency Response Plan**) to respond to natural

hazards including fire; however, the risk of fire on the site is minimal since mowing of potential fuel sources would occur during the growing season. Nonetheless, the Project has procured a fire commitment letter from the Hanover Fire Protection District (HFPD) as part of the Project Fire Protection Plan (**Appendix X: Fire Protection Plan and Hanover Fire District Commitment Letter**). Once operational, the Project would add to the electric supply to provide public services to others in the community.

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 arrays would be consistent with surrounding industrial land uses, e.g., Pikes Peak International Raceway, Fort Carson Military Base, Midway Waste Management Landfill. In addition, after construction, the site would be re-vegetated with a native seed mix.

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 associated toxic 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 site is located adjacent to an existing electric substation and associated transmission lines. Given this and the proposed setbacks and distance from existing residences (closest residence at approximately 265 feet from the WSEO boundary), the Project would not negatively impact the integrity of the existing neighborhoods. Adjoining subdivisions are minimally developed and are platted mostly on the western and northwestern edges of the Project boundary.

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

The proposed setbacks, which are consistent with the underlying zoning setback requirements, would allow the site to integrate itself into the surrounding industrial uses.

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 existing rural residential development, electrical substations and high-power transmission lines, the Midway Waste Management Landfill, and Interstate 25. The Project

would be consistent with existing adjacent industrial uses and it would have little impact on the existing rural residential neighborhoods to the west and northwest.

CPP 7.0 Special and Unique Land Uses

The purpose of this section of the Plan 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 include waste facilities, transmission facilities, recreational facilities, and mining facilities. Since solar facilities, including associated transmission lines, were not originally included in this list of special and unique land uses, the WSEO 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 use of utility sites and corridors where feasible and appropriate.

Solar energy generated by this Project would interconnect with one of two existing substations located adjacent to the Project. Three alternate routing options exist for the new transmission line location (**Appendix E**).

CPP 8.0 Parks, Trails, and Open Space

The Project is located on undeveloped land zoned RR-2.5, RR-5, and I-3. Residential development and existing industrial facilities abut the property. The adjacent property is privately owned and does not provide parks, trails, or open space for any EPC residents. As such, the Project would not impact any existing EPC 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 significantly impact local traffic patterns; traffic resulting from construction would be temporary and would include the delivery of solar panels, utility poles, and associated components that would be delivered to the site via Rancho Colorado Boulevard, El Hambre View, and La Questa Drive (**Appendix S**). Approximate staging area locations proposed for delivery of construction equipment and materials are depicted in the WSEO Overlay Plan (**Appendix F**). These proposed staging areas are within the permanent Project fence-line, and would ultimately be temporary, with the areas covered by solar arrays as the Project is completed.

A maximum of 600 trips are anticipated with a maximum of six trips per day over a 32-week period. The Applicant has prepared a haul route map to direct contractors and their drivers to avoid any potential traffic bottleneck issues during construction (**Appendix S**). 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, outside of Rancho Colorado Boulevard, El Hambre View, and La Questa Drive. During operation of the Project, the site would be visited routinely to perform maintenance (**Appendix S**). A haul route video survey was conducted on December 13, 2017 to record the current road conditions of the proposed haul route. The video files were delivered to El Paso County (on January 25, 2018) as an additional exhibit in the WSEO Application. The videos documented generally poor road conditions, with the exception of the recently improved La Questa Drive. Since road conditions are generally poor, the Project requested a waiver of the Development Impact Mitigation Agreement part of the WSEO application.

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 design does not include proposed external roads for construction or operations (**Appendix E**). Construction access would use existing routes from Interstate-25 according to the proposed haul route (**Appendix S**). Due to the distance of the Project relative to the highway, the construction would incur minimal noise and visibility impacts along the interstate corridor. Internal Project access roads would be constructed between solar arrays to allow maintenance technicians access to individual arrays during routine maintenance (**Appendix E**).

CPP 10.0 Water and Wastewater Facilities

The Project should not have an adverse impact to water or sewer demands and would not require additional water or wastewater facilities. Sanitary or other wastewater is not anticipated to be released into waters of the U.S. during construction, operation or maintenance of the Project.

Construction personnel would use portable sanitary units during construction and they would carry in drinking water. It is likely that water would be used for dust suppression, soil compaction, and revegetation of areas disturbed during construction. Additionally, water would be required for washing of the panels during operation. It is anticipated that panels would require washing twice per year. The Project would utilize water from one or more of the three water taps that have been procured from the WMWC. The WMWC issued a letter stating its commitment and ability to provide water for the Project (**Appendix A9**). Water would be pumped from the Fountain Creek Alluvial Aquifer, which is considered a renewable water resource under the EPC 300-year water supply rules. A water line held by the WMWC traverses the Project area.

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

The Project would not require long term water or wastewater services. Construction personnel would utilize portable restrooms, and potable water would be provided.

CPP 11.0 Drainage and Flood Protection

The Project is not anticipated to impact hydrologic flow of surface water or groundwater, nor affect groundwater recharge. Existing drainage patterns would be preserved. The Project would not create runoff in excess of historical levels, change existing topography or adversely affect drainage (**Appendix V; Appendix A8**). Solar arrays and facilities would avoid the headwaters to a tributary of Fountain Creek in the north central portion of the Project site, as well as any other drainage swales that convey significant stormwater flows on the Project. The Project understands that any impacts to drainages that convey significant amounts of stormwater would require additional stormwater detention facilities. The Project would not impact or alter existing headwaters to Fountain Creek nor the stock pond that coincides with this drainage (**Appendix V; Appendix A8**). The Project or its contractor would 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 Project or contractor would comply with the permit by implementing

a SWMP that identifies possible pollutant sources that may contribute pollutants to storm water, and identify and implement BMPs that would reduce or eliminate potential water quality impacts. The final SWMP, GEC, and ESQCP application would 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 would impact flood elevations. Site topography would 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.

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

The Project design would account for effects on drainage and would maintain pre-existing drainage patterns. No floodplains would be impacted by the Project construction. There would be minimal areas of additional permanent impervious surfaces as part of the Project that would impact stormwater runoff; however, stormwater runoff would be released at historic rates according to the BMPs detailed in the Preliminary Drainage Report (**Appendix V**).

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 should not increase the need for fire protection, medical services, schools or other public facilities services, or utilities. The HFPD would service the Project (**Appendix X**). However, the risk of fire on the Project during construction and operation is minimal. The Project would add to the supply of renewable energy to serve other uses in the area.

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 design would be developed in a safe and environmentally sensitive manner on private and county owned lands secured by the Project through direct ownership, lease and easement agreements adjacent to similar uses. Any contractors working on the Project during construction would have a safety plan. All construction activities occurring on the Project would meet the Project Company'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 would provide renewable energy and is proposed in an area specifically identified for maximum efficiency in solar energy uptake. Additionally, the Project is located adjacent to two existing substations so that the transmission line would not create additional overhead lines in the vicinity of the Project. The Project would maintain existing landscaping to the greatest extent possible and would be reseeded with native seed mixes.

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 would provide renewable energy to neighboring areas with minimal impacts to adjacent properties. The Applicant contracted CORE to prepare a *Visual Simulation and Solar Glare Hazard Analysis Tool Report* (**Appendix Y: Visual Simulation and Solar Glare Hazard Analysis Tool Report**). The Project voluntarily conducted a glare analysis utilizing the Sandia National Laboratories Solar Glare Hazard Analysis Tool (SGHAT) to identify the potential for glare resulting from the solar panels. Results of the tool indicated that the Project solar panels would not result in significant glare to any selected flight or ground observation points (**Appendix Y**). Additionally, the Applicant prepared a *Summary of Project Lighting Memo and Lighting Plan* (**Appendix I**). Neighboring properties would experience little to no visual impacts from either the solar array or transmission line. During operations, lighting would be turned on only when the substation is attended or when inverter maintenance is occurring, and would be motion sensed. Lighting would be directional and would produce 0.1 lumen or less at Project property lines (**Appendix I**). In addition, no new neighborhood utilities or other infrastructure would be required to support this Project.

CPP 13.0 Housing

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

CPP 14.0 Public Finance Districts

The Project would not require a public finance district; however, it is partially located within the boundaries of the Eldorado Village Metropolitan District. Metropolitan Districts are formed, in part, to pay for the debt incurred as a result of public infrastructure being placed in an area to allow for residential development. The Project would be the largest taxpayer in this district so effectively it can result in lower taxes for the residences in the District by paying off the existing debt load at an accelerated rate.

CPP 15.0 Land Development Regulations

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

The WSEO was specifically created by EPC for the purpose of wind and/or solar projects, in addition to this 1041 Application process. Community meetings have been held and additional meetings and hearings would be held in association with the requirements of the land use processes, including the WSEO, 1041. This includes two community meetings to which affected adjacent land owners and mineral estate holders were invited to learn about the project and discuss potential concerns with the Project with Applicant.

Conformance to the Goals and Policies of the West Area Planning District within the South Central Comprehensive Plan

EPC 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 EPC that is addressed under the SCCP. The SCCP provides a framework for potential growth and development in the South Central Area. The SCCP indicated the potential for Colorado Springs to expand electrical facilities on its land within the

South Central Area. The South Central Area is divided further into planning districts to allow for planning and development that is more specifically appropriate for the unique characteristics of particular areas within the South Central Area. The Project is located within the District 8 West Area, which is bounded on the west by the Fort Carson Military Base, on the east by I-25, on the south by the Pueblo County border, and on the north by the Colorado Springs lands. The SCCP identifies the following as critical factors of the West Area. The Project is consistent with the relative goals and policies as applied to the unique characteristics of the West Area as further described below.

1. Construction Suitability: The majority of the soils in the area present moderate constraints for development. There are several floodplains running east/west across the district which represent severe development hazards. Access to the area is difficult because of the steep slopes which exist along the southern, eastern and northern boundaries of the site.

The Applicant has prepared a *Preliminary Geotechnical Engineering Report (Appendix Z)* to inform Project design. The Applicant would avoid development hazards, including floodplains, and consider soil and topography constraints specific to the West Area.

2. Accessibility: The district is adjacent to I-25 and may be accessed from three interchanges. However, the road system beyond the highway is minimal. Only dirt roads exist and, on occasion, these roads are impassible. Access to this district is difficult due to the steep slopes along most of its perimeter.

The Project has performed a Haul Route Survey on the current road conditions and would return haul route roads to their pre-construction condition after construction. During Project operation, traffic to the site would be minimal.

3. Sewer and Water: The few ranches near I-25 have residential wells and septic systems.

The Project would be served by a Wigwam Water District water line that traverses the Project area through taps that have been procured. No sanitary sewer service would be required for operations and portable facilities would be used during construction.

4. Existing Land Use: The vast majority of the land is vacant and unused. The only existing uses are a few ranches, a gravel mining operation, a utility substation and power lines. A large portion of the area has been approved for large lot residential sites. These sites are generally about 10 acres in size. No residences have been built within this subdivision, but lots have been sold. The critical limiting factor has been a lack of water since the underlying Pierre Shale makes individual wells infeasible.

The Project is consistent with the existing land use of the West Area, located adjacent to the utility substation, which would minimize and confine the Project's above ground transmission lines to the Project site.

5. Community Services: No community services exist in the area. The closest services are in the City of Fountain and these are a minimum of six miles to the north.

The Project is appropriate for the West Area as it would not require nor add demand for community services.

6. *Noise Impacts:* There are noise constraints due to the military practices at Fort Carson. A Noise Level II impact zone extends up to a half mile into this planning district's boundary (refer to the Composite Map). Within this zone certain uses are considered incompatible. Mobile home parks and courts should not be built within the designated Noise II Zone. Residential uses should be discouraged. If residential uses must be allowed, measures to achieve noise level reduction of at least 25 db through special building practices, site design, berming and barriers should be used. Outdoor sports arenas where announcing is necessary should not be placed within the Noise Level II Zone.

The Project is an appropriate use in the West Area as it would not add to nor be negatively affected by noise impacts from Fort Carson.

SCCP 1.0 Natural Systems

Goal 1.A Maintain and improve the existing natural environment and the area's natural resources.

The Project construction would address revegetation, stormwater management, fugitive dust control, and erosion control by implementing relevant BMPs during construction to best address these issues. More information regarding the BMPs to be used during construction can be found in the SWMP that would be developed and submitted to the county prior to construction. Revegetation methods would 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, would 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 would be detailed during the Site Development Plan phase.

Policy 1.1: Development should minimize disturbance to the natural environment.

Policy 1.2: Any potential adverse effects due to the disturbance of natural hazard areas should be mitigated. Natural hazard areas include but are not limited to steep slopes, 100-year floodplains, flood ways and geologic hazards.

There are not expected to be facilities or structures associated with Project construction that would impact flood elevations. Site topography would be returned to existing grade where possible and in accordance with the design. Flood plain map revisions are not anticipated to be required for construction of the Project. The Applicant contracted Terracon to prepare a *Preliminary Geotechnical Engineering Report (Appendix Z)* that demonstrated that the soils would be appropriate for solar facilities and structures and that Project development would not result in or produce geologic hazards (**Appendix Z**). Since the report is preliminary, final geotechnical design considerations would be identified and mitigation proposed, if necessary, during the Site Development Plan phase. The Project would not result in fill to any drainage ways that convey major storm events.

Policy 1.4: Wherever possible, drainage ways and 100-year floodplains should be maintained in their natural condition.

No Zone-A floodplains are located within the WSEO boundary. The Project would not impact or alter existing floodplains in the vicinity of the Project (**Appendix V**).

Policy 1.7 New developments should minimize negative impacts to air quality

Policy 1.8 Fugitive dust should be controlled by practices acceptable to the County and other responsible governing agencies.

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. Water trucks would apply water during construction activities in accordance with Section 6.3.1 of the EPC Land Development Code and as detailed in the Project Air Quality Management Plan (**Appendix R**).

SCCP 2.0 Growth and Land Use

Goal 2.B Ensure that support facilities for urban growth are well sited so they do not detract from the existing visual and environmental character of the area.

The Project would be constructed on private and county owned lands secured by the Project through direct ownership, lease and easement agreements. The Project would be situated adjacent to industrial parcels and some rural residential development to the west and northwest. It is not anticipated that the Project, once completed, would significantly disturb or impede residents in the vicinity. Project visual simulations were completed to model how the constructed Project would appear and glare analysis were completed which have demonstrated that the Project has been sited so that it does not detract from the existing visual and environmental character of the area; i.e., the Project is clustered with existing transmission line corridors and substation infrastructure. (**Appendix Y**).

Policy 2.8: Low impact uses which do not require a well-developed transportation system, have low visual impacts, and which have minimal water requirements should be allowed in the planning area if they are not otherwise inconsistent with these policies.

The Project would provide renewable solar energy and would have low impacts to the property and surrounding landowners and require minimal water. The Applicant contracted CORE to prepare a *Visual Simulation and Solar Glare Hazard Analysis Tool Report* (**Appendix Y**) which demonstrated that the Project would result in low visual impacts to adjacent rural residents. Key observation points utilized in the Visual Simulation were selected based on the locations of visual receptors (existing residents) and input from the county. CORE utilized the Sandia National Laboratories SGHAT to identify the potential for glare resulting from the solar panels. Six locations surrounding the Project were selected based on the locations of visual receptors in the vicinity of the Project. Potential flight paths from the Colorado Springs airport were selected based on publicly available maps and data from the FAA. Military flight paths from Fort Carson were not modeled. Discussions with the base resulted in no request for military flight path modeling since solar panels are located on the base. Results of the tool indicated that the Project solar panels would not result in significant glare to any selected flight or ground observation points. Construction would require water for dust control, and operations would require minimal water for scheduled maintenance.

SCCP 3.0 Land Use Compatibility

The reports attached to this Letter of Intent demonstrate that the Project is not anticipated to:

- Produce adverse effects on the desirability of surrounding existing development or lands
- Impair the stability or value of existing adjacent development
- Adversely affect the quality of life of existing adjacent development
- Exhibit a lack of quality or function in site planning and design
- Create a public danger or nuisance to surrounding areas

- Alter the basic character of adjacent land uses or of the entire community.

SCCP 4.0 Visual Quality

The Applicant contracted CORE to conduct a visual simulation and glare analysis. Points of analysis for the visual simulation were selected based on input from the county (**Appendix Y**). The Project would be clustered with existing industrial infrastructure including the WAPA and PSCo substations, Midway Waste Management Landfill, gravel pit, and a Southwest Generation natural gas-fueled electric generation unit.

Policy 4.2: Large visual intrusions into the landscape, such as radio towers or transmission lines, should be located away from residences and on lands with a lower elevation. These major visual intrusions should be consolidated as much as possible.

The new transmission line would be located entirely within the WSEO boundary and would interconnect to an existing substation (WAPA or PSCo). The Project would result in low visual intrusions to surrounding residents since the Project has been sited so that it does not detract from the existing visual and environmental character of the area; i.e., the Project is clustered with existing transmission line corridors and substation infrastructure (**Appendix Y**).

SCCP 5.0 Transportation

The Project would not significantly impact the existing or proposed transportation system. The Applicant has prepared a *Transportation Memorandum, Haul Route Plan, and Traffic Data Collection* (**Appendix S**) that demonstrated an increase in vehicle frequency and visits during construction, but a minimal increase would be expected. A haul route would be utilized by all contractors working on the Project to avoid unanticipated construction vehicle bottlenecks in the vicinity of the Project. A haul route video survey was conducted to record the current road conditions of the proposed haul route. The video was recorded on December 13, 2017 and indicated generally poor road conditions, with the exception of the recently improved La Questa Drive. Since road conditions are generally poor, the Project requested a waiver of the Development Impact Mitigation Agreement and associated fees as part of the WSEO application. Vehicle traffic would be minimal once operational.

SCCP 6.0 Special Facilities/Utilities

The Project would not create new development in the area or require new utilities to be provided in the South Central planning area.

Policy 6.12: Utility substations, facilities and transmission lines, which are constructed, should be carefully designed and sited. The proposed facility should ensure that the adverse visual, environmental, social, land use, health and economic impacts are minimized or mitigated.

The new transmission line associated with the Project would be situated entirely within the WSEO boundary and would interconnect to an existing substation (WAPA or PSCo) adjacent to the Project. The new gen-tire line would not result in significant additional impacts to the visual quality of the landscape (**Appendix Y**).

Proposed facilities include solar arrays and single axis trackers, transformers and DC to AC inverters, meteorological towers, and a transmission line interconnecting the Project substation to one of two

existing substations within the Project. Preliminary design would arrange solar panels in arrays across the Project. Panels are clustered into modules and fixed to the ground on piles that support the panels. A motor is affixed to a central pile that provides power so that panels can track the movement of the sun. Individual trackers typically measure 157 feet across. At a neutral tilt, panels are parallel to the ground at a typical height of six feet-ten inches. At a maximum tilt, the height of the panel typically reaches between 12 feet-nine inches and 13 feet-nine inches. Up to 50 inverters and transformers would be located adjacent to solar arrays. Each transformer and inverter pair footprint would measure approximately 20-feet by 10-feet; transformers would measure approximately 10 feet in height and inverters would measure approximately seven feet in height. Underground collection lines would transmit power to the Project transmission line. The location and extent of the underground collection would be determined at the Site Development Plan phase. Transmission line poles would be constructed of wood and would have a minimum clearance above grade at 29 feet, after which point electric transmission facilities would be mounted to the poles between approximately 29-feet and 88-feet. Meteorological towers would include multiple tools including a Hukseflux SR200 pyranometer at approximately eight feet-two inches, a Lufft VWS 601 multiparameter weather station at approximately 10 feet-eight inches, and a control enclosure EI CR1000 logger with a 12 AHR battery mounted to the tower at approximately five feet-six inches. The towers would each be powered by a 20 watt photovoltaic module attached to the tower immediately below the control enclosure.

The Applicant completed multiple studies demonstrating that the Project would not significantly impact existing environmental, social, land use, health, or economic levels within the surrounding community (**Appendix G; Appendix K; Appendix M; Appendix R; Appendix S; Appendix V; Appendix A I: Feasibility Summary Report**). Some residential lots located in the vicinity of Boca Raton Heights, Van Whye Court, Moab Court, and La Questa View are situated between proposed solar arrays. Buffers between solar arrays and residential lot property lines exceed 25 feet in all cases. In most cases, buffers between residential lot lines and solar arrays exceed 100 feet. The Project has held one community meeting and plans to hold a second community meeting to discuss potential concerns about the Project with property owners in the vicinity.

Policy 6.13: Any major proposed utility projects, which could have significant visual impacts, should include public involvement during all critical stages of plan development.

The Project would result in no significant visual impacts, as documented in the *Visual Simulation and Solar Glare Hazard Analysis Tool Report* (**Appendix Y**). However, a community meeting was held for all adjacent landowners on September 13, 2017. At least 26 members of the community were present. No visual concerns were raised by residents; specifically, no visual concerns were raised by landowners with properties in the vicinity of Boca Raton Heights, Van Whye Court, Moab Court, and La Questa View. The Project plans to conduct an additional community meeting in late January, 2018, during which time concerned landowners can voice their concerns regarding construction and operations of the Project, visual or otherwise. EPC Planning & Community Development Department personnel are invited and encouraged to attend the January 31, 2018 community meeting. The Project would work to practically mitigate any visual impacts concerns identified by adjacent residents.

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 renewable energy standard (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.

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 report¹, which noted the following.

"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 100.2 MW of renewable solar energy to a commercial utility off-taker. 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 would develop a utility-scale solar energy facility within El Paso County that would contribute 100.2 MW of renewable energy to a utility off-taker that would be likely to supply energy to consumers in the Pikes Peak region.

¹ "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.

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

The Project would be developed on private, county, and federal lands. Since the Project has the potential to interconnect to the WAPA substation, the Project was subject to federal land management policies including preparation of an EA pursuant to the NEPA review process (**Appendix K**). The lead agency, the DOE, consulted with multiple local, state, and federal agencies during the review process. The final EA was approved concurrently with issuance of a FONSI on September 21, 2016 (**Appendix G**).

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 (NRCS 2008). The NRCS EPC soil survey identified four soil associations comprising the site including Wilid silt loams (0 to 8 percent slopes), Fort loam (1 to 5 percent slopes), Kim loam (1 to 8 percent slopes), and the Schamber-Razor complex (8 to 50 percent slopes). Wilid silt loams dominated the Project area, comprising approximately 70% of the total Project site. None of the soils occurring on the Project area are characterized as unique or prime farmland by the NRCS (**Appendix A2: Soils Map**).

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 investigation of the Project (**Appendix Z**). 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.

The Project is located in Seismic Zone I which is an area of very low risk for seismic activity (**Appendix Z**). The Preliminary Drainage Report indicates low risk for flooding (**Appendix V**). There is a chance for low intensity wildfire on the Project site due to historic drought conditions, grassy/weedy vegetation, and Project location in relation to I-25 and Fort Carson. The likelihood of wildfire is not likely to increase significantly with development of the Project. The Project has obtained a Fire Commitment Letter from the Hanover Fire District (**Appendix X**). There is a low risk for snow crushing solar facilities. The Project procured a Snow Stowing Design Bulletin pertaining to the snow-load bearing capacity of the solar panels. Based on manufacture specifications, modules and racking can support up to 30 pounds per square foot (**Appendix A3: NexTracker Design Bulletin-Snow Stowing**). In addition, the Project fence line would minimize snow accumulation inside the solar facility.

Given the relatively low average annual snowfall (29 inches) in Pueblo, Colorado, significant snow drifts are not anticipated along the exterior side of the Project fence line; therefore, impacts to public roadways as a result are not a concern. In addition, the majority of the proposed fence line does not run along public roadways.

The Project was analyzed for the risk of wildfire based on the *Wildfire Hazards Based on Colorado Vegetation Classification Project – El Paso County, Colorado* as referenced in Section 6.3.3(A)(6). The Project is located

in a low hazard/nonforested area of the county (**Appendix X**). As such, wildfire hazard mitigation would not be required since wildfire hazard is minimal on the Project. Nonetheless, the Project would conform to the additional fire-related standards under Section 6.3.3 as requested by the county and as described in the Fire Protection Plan. Should fire occur on the Project, the Project would receive services from the HFPD through a mutual aid agreement with Hanover Fire Department (HFD) (**Appendix X**).

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 utility scale energy providers to produce additional sources of alternative, clean energy within EPC. Meeting this demand is consistent with state goals to provide renewable energy options to electric utility customers. It is unknown at this time whether energy generated from this site would provide electricity to customers contiguous to the Project site. However, the Project would support Colorado power providers in achieving that Colorado RES state required standard for additional sources of renewable energy. Multiple utilities along the Front Range have issued RFPs for solar renewable energy sources to satisfy those local, state, and federal statutes. The Project would help to satisfy this demand by supplying 100.2 MW of solar produced renewable energy to be distributed to utility customers along the Front Range.

2.303(8) Surface and Subsurface Drainage Analysis

The Project Preliminary Drainage Report provides recommendations of remediation for changes in the site drainage patterns resulting from the development of the Project (**Appendix V**). The Project is not anticipated to impact hydrologic flow of surface water or groundwater, nor affect groundwater recharge. Existing drainage patterns would be preserved. The Project would not create runoff in excess of historical levels, change existing topography or adversely affect drainage. The Project or its contractor would 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 Project or contractor would 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 ESQCP would 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 would impact flood elevations. Site topography would 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 (**Appendix V**).

2.303(9) Financial Feasibility of the Project

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

Full financing for all pre-construction development activities of the Project has been secured through financing with EGP-NA. EGP-NA is a worldwide leader in renewable energy generation and has constructed projects in 22 U.S. states, and two Canadian provinces. EGP-NA is a subsidiary of Enel which is a publicly traded company. In order for the Project to be constructed, additional financing for operations would be required which is contingent upon the Project entering into a long term PPA with a credit worthy buyer.

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

The Project would compete against like projects throughout the state and in general, if it is able to deliver a competitive price, it would be selected to enter into a long-term contract to sell the power. Once a long-term contract is obtained, the Project can be financed and built. The Project targets a key node in Colorado's electric system where five utilities converge: Black Hills, Colorado Springs Utilities (CSU), Tri-State G&T, Xcel, and WAPA. All utilities (except WAPA) have been active buyers of solar power within the past three years and are seeking to purchase additional power produced through solar facilities. The Project location provides the Project the ability to target multiple utilities from one solar site. Further, utility preference for renewables is high; utilities may be retiring a coal unit and would be in the market for solar and natural gas generation. Project feasibility has been demonstrated through a *Feasibility Summary Report (Appendix AI)*.

The Project is located adjacent to platted and existing single family residential housing, including the recently improved El Dorado Village to the north. A portion of the Project is also located on four parcels owned by El Paso County. The Project Company currently has an option to lease these four parcels from El Paso County.

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 HFPD. During construction, all construction traffic would follow the Project haul route (**Appendix S**). A haul route video survey was conducted to record the current road conditions of the proposed haul route. The video was recorded on December 13, 2017 and indicated generally poor road conditions, with the exception of the recently improved La Questa Drive. Since road conditions are generally poor, the Project requests a waiver of the Development Impact Mitigation Agreement and associated fees. In addition, the Project requests a condition of approval that if construction does not start within six months of the haul route video being recorded, an updated haul route video can be provided prior to construction. The waiver was submitted as an additional item as part of the WSEO application.

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 one or more of the three taps procured from the WMWC line and located on the Project site. The WMWC issued a letter stating their commitment and ability to provide water for the Project (**Appendix A9**). Water would be pumped from the Fountain

Creek Alluvial Aquifer, which is considered a renewable water resource under the EPC 300-year water supply rules.

2.303(11) Recreational Opportunities

The proposed Project would not have any impact on current or proposed recreational opportunities. The site is composed of land zoned as RR-2.5 (Residential Rural), RR-5 (Residential Rural), and I-3 (Heavy Industrial). There are no county or state recreation areas on or in the vicinity of the Project. The Project would be clustered with existing industrial properties including the WAPA substation, PSCo substation, existing distribution lines, and the Midway Landfill. Dispersed rural residential properties are located to the south and to the west. However, rezoning the undeveloped property would not remove any recreational opportunities from these residents since the Project area is comprised of mostly private land, some county property, and some DOI Bureau of Reclamation property on which the WAPA substation is located.

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

Centennial Archaeology (CA) performed an intensive Class III Cultural Resources pedestrian survey of the Project in 2015 (**Appendix L**). The survey identified 32 isolated finds and six new sites. The isolated finds were considered prehistoric in nature and consisted of either single occurrences or small quantities of debitage; i.e., the material produced as the result of manufacturing chipped stone tools and lithics reduction. Two sites were determined by CA to be potentially eligible for listing on the NRHP. The Project activities would avoid the potentially eligible sites as shown in **Appendix F: WSEO Overlay Plan** and **Appendix A8: Physical Constraints Map**. The remaining four sites and isolated finds were deemed ineligible by CA for NRHP listing. CA did not recommend further investigation of the remaining items.

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.

- Noise from construction would be temporary, would comply with county noise standards and would be limited to normal working hours. There would be no increase in noise levels after construction is complete.
- The potential glare hazard of the proposed solar arrays to vehicular traffic and adjacent residences in the vicinity was analyzed using Sandia National Laboratories' SGHAT; **Appendix Y**). The analysis determined no ground or flight observation points would experience significant glare from the solar panels.
- There is the potential for a minor increase in fugitive dust during construction activities; however, fugitive dust would be temporary and mitigated through the use of watering trucks and other BMPs identified in the Project APEN that would be submitted prior to construction.
- Fumes, vibration and odor levels are not expected to change as a result of the Project.

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 (FDCP) 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 R**).

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 south of the monitoring station located at the intersection of State Highway (SH) 24 and I-25. As of June 20, 2017, 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_x, CO, VOCs, particulate matter (PM), small amounts of SO₂, 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 (four to six 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

The landscape within and surrounding the Project site can be described visually as rural-industrial, with multiple overhead transmission and distribution lines, electrical substations, a gas fired electric generation facility, a landfill, aggregate mines, Interstate 25, and a tire recycling facility. Visual impacts were assessed within one mile of the proposed Project. The proposed Project conforms to the visual resource standards of the EPC SCCP since new solar arrays and associated infrastructure would be clustered with existing utilities (WAPA and PS-Co substations). Implementation of the proposed Project would introduce new electrical infrastructure into the region. Some Project infrastructure, such as the transmission line, solar facility substation, and new substation bay would have little visual contrast to the existing electric utility infrastructure. Visual simulations were completed to model how the constructed Project would appear from multiple vantage points (**Appendix Y**).

Some residential lots located in the vicinity of Boca Raton Heights, Van Whye Court, Moab Court, and La Questa View are situated between proposed solar arrays. Setbacks between solar arrays and residential lot property lines exceed 25 feet in all cases; and in most cases, exceed 100 feet. The closest existing

residence is approximately 265 from proposed solar arrays. The Applicant held a community meeting on September 13, 2017 to address any concerns, visual or otherwise, of landowners in the vicinity of the Project. At least 26 members of the community were present. No visual concerns were raised by residents; specifically, no visual concerns were raised by landowners with properties in the vicinity of Boca Raton Heights, Van Whye Court, Moab Court, and La Questa View. The Applicant would hold another community meeting on January 31, 2018, to give landowners another opportunity to voice their concerns regarding construction and operations of the Project, visual or otherwise. Members of the EPC Planning & Community Development Department are invited and encouraged to attend the community meeting planned for January 31, 2018. The Applicant would coordinate with landowners to mitigate any reasonable visual impact concerns identified.

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 would be preserved after site development. The Project would not create runoff in excess of historical levels, change existing topography or adversely affect drainage (**Appendix V**). The Applicant or its contractor would 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 would 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 would be developed and 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 construction of the Project that would impact flood elevations. Site topography would be returned to existing grade where possible following construction and in accordance with the approved Project design. Floodplain map revisions are not expected to 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 Applicant contracted WEST to conduct an on-site survey to determine the nature of any potentially jurisdictional waters or isolated waters on the property. The survey determined one swale-like drainage was dammed that created an isolated stock pond in the north-central part of the Project (**Appendix M**). No other surface water features were identified during the site visit. The Project would not impact the isolated stock pond; no jurisdictional waters are located on the Project. It is not anticipated that Project construction would require a Section 404 CWA permit.

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 would be minimized by implementing BMPs and a Project-specific SWMP. An ESQCP application would be submitted to the county in conjunction with the construction permit(s) required for the Project. Site drainage would not change significantly as a result of Project construction (**Appendix V**). Solar arrays and facilities would avoid the headwaters to a tributary of Fountain Creek in the north central portion of the Project. The Project would not place fill in or alter these existing headwaters nor the stock pond that coincides with this drainage (**Appendix A8**). In addition, the Project would not place fill in or alter any other drainage swales that function to convey significant flows during stormwater events. The Project understands that impacts to drainages that convey significant flows during precipitation events would require additional stormwater detention facilities.

Project construction would avoid impacts to the single, isolated stock pond on the Project. BMPs would be utilized to prevent construction and stormwater runoff from entering the stock pond. Typical BMPs would include silt-fencing and straw waddles to prevent sediment deposition and erosion of soil around the stock pond.

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

Terracon conducted a *Phase I Environmental Site Assessment (ESA)* for the Project in 2014 (**Appendix A4: Phase I Environmental Site Assessment**). The ESA indicated that the estimated depth to the first occurrence of groundwater beneath the property was 20 to 40 feet below ground surface. NRCS soil survey data report the water table as located at greater than 6.5 feet for the four soil series occurring within the Project.

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

Since solar facilities would not impact ground water, artesian pressure was not assessed.

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

Since solar facilities would not impact ground water, ground water flow direction and levels were not assessed. However, Terracon did note that these variables would likely vary depending upon seasonal variations in rainfall and the depth to the soil/bedrock interface (**Appendix A4**)

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

Since solar facilities would not impact ground water, existing aquifer recharge rates were not measured.

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

Given the minimal water requirements needed to operate solar facilities, 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 water requirements needed to operate solar facilities, seepage losses are not expected.

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

The ESA indicated that groundwater quality is not monitored on the site. The CDPHE Hazardous Materials and Waste Management Division was solicited for information regarding environmental records or information indicating environmental concerns for the site that would have the potential to affect groundwater quality. The CDPHE replied that no records are on file for the Project area (**Appendix A4**).

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

There are no groundwater wells located on the property. The ESA identified three percolation test holes within the Project (**Appendix A4**).

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 would 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 alluvium.

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 streams or reservoirs on the Project site; no stream flows or reservoir levels would be affected by the Project (**Appendix V**).

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

No stream flows would be affected by development 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. It is anticipated that the solar panels would require washing twice a year. This would require approximately 22,000 gallons per year that would be obtained from one or more of the water taps procured from the WMWC. The WMWC issued a letter stating their commitment and ability to provide water for the Project (**Appendix A9**). Water would be pumped from the Fountain Creek Alluvial Aquifer, which is considered a renewable water resource under the EPC 300-year water supply rules. A WMWC water line traverses the Project site.

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

Water use would be limited to dust mitigation and soil treatment during Project construction. Once installed, the solar panels are cleaned through rain events, but may require additional washings pending soiling conditions. The Project would require minimal additional water during the operational life of the Project.

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

The Project would be developed with a commitment to environmental stewardship. WEST prepared a *Wetlands, Waterbodies, and Threatened, Endangered, and Species of Special Concern Survey Report* for the Project in August 2015 (**Appendix M**). The site is located within Land Resource Region G: Western Great Plains and consists of flat to gently rolling topography. Elevations range from approximately 5,360 to 5,520 feet AMSL. Surface water flows to the east towards the Fountain Creek drainage. Project vegetation is comprised by short-grass prairie; cane cholla (*Cylindropuntia imbricata*) was observed throughout most of the Project and juniper (*Juniperus scopulorum*) was observed along the swales and the northwest part of the Project. CORE developed a *Noxious Weed Management Plan* (**Appendix I**). Noxious weeds would be treated and managed according to county standards prior to, during, and following construction.

WEST conducted a site-survey to determine the potentially jurisdictional nature of any water bodies located on the Project. WEST located a single isolated non-jurisdictional stock pond on the Project. The Preliminary Drainage Report determined that no floodplains occur on the Project. (**Appendix V**).

Federal and state listed threatened and endangered (T&E) species and species of concern (SOC) that have the potential to occur at the Project site are included in table below (**Table 2**). No federally protected species or their associated habitat were identified at the Project site. Black tailed prairie dog (State SOC) was identified on the Project site. Prairie dog colonies are potential habitat for burrowing owl (State Threatened). Per CPW recommendations, the prairie dogs would be relocated or humanely eradicated prior to commencing earth-moving activities. Furthermore, the Project would follow CPW recommended measures to avoid impacts to the burrowing owl. If construction occurs between March 1 and October 31, the site would be surveyed for the presence of burrowing owls prior to commencing earth-moving activities. If burrowing owls are identified, their habitat would be avoided until after the owls have migrated from the area. A qualified biologist would perform the pre-construction surveys and monitor any burrowing owls identified during construction. Project correspondence with the USFWS and CPW are included in **Appendix M**.

WEST conducted a desktop review of federally and state listed Threatened and Endangered Species (TES) and state species of concern (SOC) that would have the potential to occur on the Project (**Table 2; Appendix M**). CORE notes that federal species identified as experimental or candidate, and SOC not relevant to the Project were removed from this summary. The Project requested comments from CPW and USFWS in 2014 regarding the potential for the Project to impact any federal or state TES identified in the review; the letters also solicited for agency input regarding recommended measures to avoid impacts to SOC (**Appendix M**).

NEPA review of the Project included a review of the *Wetlands, Waterbodies, and Threatened, Endangered, and Species of Special Concern Report* as well as the Project's coordination with the USFWS and CPW in order to evaluate the Project's potential impact on multiple resources including, but not limited to: water, vegetation, wildlife and special status species and cultural. The NEPA review concluded with a Finding of No Significant Impact (FONSI) issued on September 21, 2016.

Table 2. TES and SOC with the Potential for Occurrence within the Project

Species	Federal and State Status ²	Habitat	Likelihood of Occurrence within Project ³
Mammals			
Black-tailed prairie dog (<i>Cynomys ludovicianus</i>)	SOC	Common across the Western Great Plains shortgrass prairie	High; WEST observed black-tailed prairie dogs in the north central portion of the Project
Preble's meadow jumping mouse (<i>Zapus hudsonius preblei</i>)	FT, ST	Well-developed riparian habitat with a nearby water source and with adjacent undisturbed grassland communities. Project area is outside of the range of known occupied habitat.	Unlikely; requisite habitat not present
Swift fox (<i>Vulpes velox</i>)	SOC	Typical in undisturbed shortgrass prairie; commonly associated with prairie dog colonies as the fox will modify burrows	High; preferred habitat present
Townsend's big-eared bat (<i>Corynorhinus townsendii</i>)	SOC	Roost in spacious cavern-like structures; forage along edge habitats in forested habitats and along heavily vegetated stream habitats; water sources are open and accessible	Moderate; CPW correspondence indicates a colony is located within five-miles of the Project; may utilize stock pond on the Project
Birds			
Burrowing owl (<i>Athene cunicularia</i>)	ST	Typical in shortgrass prairie; utilize prairie dog burrows for nesting in Colorado	High; preferred habitat present
Least tern (<i>Sterna antillarum</i>) ¹	FE, SE	Interior populations breed near rivers, usually with sandbars.	Unlikely; requisite habitat not present
Mexican spotted owl (<i>Strix occidentalis lucida</i>)	FT, ST	Old growth and mature forests; also, canyons with riparian communities.	Unlikely; requisite habitat not present
Mountain plover (<i>Charadrius montanus</i>)	SOC	Associated with shortgrass prairie habitat and some flooded, cultivated agricultural fields. May nest on prairie dog colonies since nesting occurs on areas characterized by bare ground or very short vegetation	Moderate
Piping plover (<i>Charadrius melodus</i>) ¹	FT, ST	Open sandy beaches on a variety of water bodies. Project is outside of breeding range.	Unlikely

Plains sharp-tailed grouse (<i>Tympanachus phasianellus jamesii</i>)	SE	Prefers scrubby plains habitat that includes well established shrub cover in both breeding and winter range; known to occur northeast of the Project	Unlikely; requisite habitat does not occur on site; out of known range
Whooping crane (<i>Grus americana</i>) ¹	FE, SE	Migrant found in a variety of wetland habitats and agricultural fields. Introduced as non-essential, experimental population in Colorado – no extant individuals remain.	Unlikely
Amphibians			
Northern leopard frog (<i>Lithobates pipiens</i>)	SOC	Requires perennial ponds, marshes, bogs, canals, floodplains, lakes, or slow streams with rooted aquatic vegetation	Unlikely; suitable habitat does not occur on site
Fish			
Arkansas darter (<i>Etheostoma cragini</i>)	FC, ST	Found in shallow, cool, clear streams in portions of the Arkansas River basin.	Unlikely; requisite habitat does not occur on site
Greenback Cutthroat trout (<i>Oncorhynchus clarki stomias</i>)	FT, ST	Cold water streams and lakes in the South Platte and Arkansas River basins.	Unlikely; requisite habitat does not occur on site
Pallid sturgeon (<i>Scaphirhynchus albus</i>) ¹	FE	Found downstream in the Missouri and Mississippi rivers and tributaries. Not known to occur in Colorado.	Unlikely; out of range and requisite habitat does not occur on site
Invertebrates			
Pawnee montane skipper (<i>Hesperia leonardus montana</i>)	FT	Restricted to portions of the South Platte Canyon River drainage system in ponderosa pine (<i>Pinus ponderosa</i>) on moderately steep, granitic slopes.	Unlikely; out of known range and requisite habitat does not occur on site
Flowers			
Ute ladies'-tresses (<i>Spiranthes diluvialis</i>)	FT	Found in moist meadows and a variety of vegetation and hydrology types associated with perennial and seasonally flooded areas.	Unlikely; moist meadows, sandy streams not present on site
Western prairie fringed orchid (<i>Platanthera praeclara</i>) ¹	FT	Found in calcareous prairies and sedge meadows in states east of Colorado. Not known to occur in Colorado.	Unlikely; out of known range and requisite habitat does not occur on site

¹ Per USFWS, this species only needs to be considered if the Project consists of water-related activities that would result in downstream depletions in the North Platte, South Platte, or Laramie River Basins. The Project is in the Arkansas River basin and, therefore, these species are unlikely to occur within the Project.

² FE= Federal Endangered, FT= Federally Threatened, FC= Federal Candidate, SE = State Endangered, ST = State Threatened

³ Likelihood of Occurrence: Unlikely– no species range overlap with Project area or unsuitable habitat in Project vicinity; Low– species range overlaps with Project area and marginally suitable habitat in Project vicinity; Moderate– species range overlaps with Project area and suitable habitat present in Project area, or species known to occur in habitat similar to Project area; High–highly suitable habitat present in Project area, or known populations exist in Project vicinity.

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/nonforested area of the county (**Appendix X**). 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. No other natural hazards with the potential to affect the Project have been identified (**Appendix Z**). However, design constraints have been identified in the Physical Constraints Map (**Appendix A8**). Four soil types were identified as occurring within the Project (**Appendix Z**).

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 HFPD would respond. The Project has obtained a Fire Commitment Letter from the district to respond to any fire emergency on the Project (**Appendix X**). An extensive snowstorm could have the potential to crush panels and arrays. The Project procured a Snow Stowing Design Bulletin from NexTracker pertaining to the snow-load bearing capacity of the solar panels. Based on manufacturer specifications, modules and racking can support up to 30 pounds per square foot (**Appendix A3**). 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 would have minimal impacts to local soils and no impact to geologic conditions. Soil disturbance would be limited to grading required for solar panel installation, site access, and distribution line pole installation. The Project would 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 would be limited to petroleum products, including gasoline, oil, and lubricants for construction equipment. Construction equipment would 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 would be conducted off-site. An SPCC Plan would be prepared for the Project and would contain information regarding training, equipment inspection and maintenance, and refueling of construction vehicles, with an emphasis on spill prevention. Hazardous materials would 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 would be described in the Project SPCC Plan and Final Emergency Response Plan (ERP). The SPCC Plan and final ERP would be completed prior to the initiation of construction activities. A preliminary ERP was drafted for the permitting phase of the Project (**Appendix W**).

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 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.
- Trees would either be cleared outside of the nesting raptor season (April 1 – July 15) or surveys would be conducted by a qualified biologist prior to commencing construction. There is potential for ground-nesting migratory birds to nest past July 15. Ground nesting birds can be cryptic depending on species and ground cover. As such, a qualified biologist would determine if ground clearance surveys are necessary should initial ground disturbing activities occur past July 15. Should construction occur between March 1 and October 31, nesting burrowing owl surveys would be conducted by a qualified biologist. If burrowing owls are observed, active nests would be avoided until after the owls have migrated from the area. A qualified biologist would perform the pre-construction surveys and monitor any burrowing owls identified during construction.
- Project construction would avoid the isolated stock pond located in the north central portion of the Project.
- Non-native vegetation and noxious weeds would be managed on the Project site as required for Project operation; management would follow methods described in the Project-specific Noxious Weed Management Plan (**Appendix H: Noxious Weed Management Plan**). Revegetation methods would 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, would 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 would be detailed during the Site Development Plan stage. Operations would require regular mowing to prevent shading of the solar panels.
- BMPs identified in the Project's SPCC Plan would be implemented.
- BMPs identified in the Project's SWMP would be implemented.

2.303(22)(b) Methodology to Measure Impacts

- 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

- SWMP BMPs would be monitored during construction activities.
- SPCC Plan BMPs would be monitored during construction activities.

- Monitoring of energy production to ensure adherence to the PPA, once established.
- If necessary, burrowing owls would be monitored during construction.
- Site mowing would maintain low vegetation coverage to avoid shading of solar panels.

5.201 Application Submission Requirements

5.201(1) Vicinity Map of Proposed Site and Surrounding Area, to Include:

5.201(1)(a) The Area Within a Fifty Mile Radius of the Site

A map identifying the Project site and a fifty-mile radius can be found in **Appendix A5: Regional Setting Map**.

5.201(1)(b) If New Transmission Line is Proposed, a Map Showing all Transmission Lines Within a Two-Mile Radius of Alternatives Studied

A depiction of all transmission lines within a two-mile buffer are depicted on **Appendix A6: Existing Transmission Lines Map**.

5.201(1)(c) For Upgrades to Existing Transmission Lines, a Map Showing Existing Transmission Lines Within One Mile

No upgrades to transmission lines are being proposed with this application.

5.201(1)(d) For all Other Major Facilities, the Area Within Ten Miles of the Site

No other major facilities of a public utility are being proposed with this application.

5.201(2) Type of Facility:

5.201(2)(a) Voltage and Length of Transmission Line

The exact length of the Project transmission line would be determined during the Site Development Plan stage. However, it is not anticipated to exceed 1,500 feet in length. The voltage of the transmission line would be determined once the exact interconnection location is known.

5.201(2)(b) Type of Poles Used, with Graphic Depictions

The transmission line connecting the Project to the WAPA or PSCo substations would use wood or steel poles with a maximum height of approximately 90', including a fiber optic communications and lightning protection ground wire. A graphic depiction of the poles to be used can be found in **Appendix F**.

5.201(2)(c) Power Source and Generating Capacity

The Project is a 100.2-MW solar energy generating facility with a Project transmission line and Project substation.

5.201(2)(d) The Functions and Size of Substations

The Project would construct a single small Project substation (three-to-five acres) that would serve to interconnect the energy produced by the Project to the electric grid.

5.201(2)(e) The Diameters and Lengths of Pipelines

No new pipelines are being proposed with this application.

5.201(2)(f) Capacities of Storage Tanks and Types of Derivatives to be Stored

No new storage tanks are being proposed with this application.

5.201(2)(g) Corridor Locations and Dimensions

The location and dimensions of the transmission line corridor connecting the Project to the WAPA or PSCo substation would be determined upon execution of a PPA. The PPA would identify the utility off taker which would determine the exact location and dimensions of the transmission line and interconnection. Preliminary location of routing for all options are shown on the *Preliminary Site Plan (Appendix E)*.

5.201(2)(h) Service Area

The service area would be determined upon execution of a PPA. The PPA would identify the utility off taker which would determine the service area.

5.201(3) Resource Area (i.e. Source of Power Generation)

The Project is a renewable, solar energy generation project.

5.201(4) Projected Development Schedule

5.201(4)(a) Timetable for Planning (Permits, Zoning, etc.)

The Project has enclosed a request for a condition of approval pursuant to Section 2.303 of Appendix B to the EPC LDC a waiver of the requirement that the Project 1041 application provide the information requested in criteria 5.201(4)(a) at the time of this application.

5.201(4)(b) Estimated Beginning of Construction, Completion of Construction and Beginning of Operation of the Facility

The construction and operation timeline of the Project would be determined upon execution of a PPA. The Project is proposed to be constructed in a single phase. It is expected that the if Project is approved in early 2018, construction could begin by the end of year 2018. Operation would begin upon completion of construction which is estimated to take up to nine months. The life expectancy for the Project to provide renewable energy is 25 years at a minimum, and 35 years at a maximum.

5.201(5) Hazards and Emergency Procedures:

5.201(5)(a) Description of Hazards, if any, Including Fire, Explosion and any Other Dangers to Employees and the General Public

Terracon prepared a *Preliminary Geotechnical Engineering Report (2014)* for the Project and found the site to be low risk for earthquakes and other geologic hazards (**Appendix Z**). The Project Preliminary Drainage Report indicates low risk for flooding (**Appendix V**); there are no perennial streams on the Project site and development within the 100-year floodplain would not occur. There is low risk for wildfire in the area of the Project site due to historic drought conditions, weedy vegetation, and Project location in relation to I-25 and Fort Carson. The Project is located in a low hazard/non-forested area of the county according to the *Wildfire Hazards Based on Colorado Vegetation Classification Project – El Paso County, Colorado (Appendix X)*. However, the

chance of wildfire is not likely to increase significantly as a result of development of the Project. Should wildfire occur on the Project, it would be responded to by the HFPD. The Project has obtained a Fire Commitment Letter (**Appendix X**). No other natural hazards with the potential to affect the Project have been identified.

5.201(5)(b) Describe Hazards of Environmental Damage

Hazards of environmental damage are limited to leaks and spills of petroleum products and lubricants from construction equipment. An SPCC Plan would be prepared for the Project and would describe procedures for managing leaks and spills, should they occur. No other hazards of environmental damage are anticipated due to activities or materials used on site.

5.201(5)(c) Description of Emergency Procedures

A copy of the Project Preliminary ERP for the Project is provided in **Appendix W**. A copy of the SPCC Plan would be submitted at the Site Development Plan stage.

5.201(6) Description of Non-structural Alternatives to the Project

The Colorado RES statute (Section 40-2-124, C.R.S) requires electricity providers to obtain a minimum percentage of their power from renewable energy resources by 2020 and thereafter. Other renewable energy resources that would meet the State's renewable energy mandates, include wind and geothermal energy production. The Project site is not suitable for wind or geothermal development. A similar-sized wind project would require a much larger project site and a better wind resource; and there is no geothermal resource present beneath the Project site. The Front Range-Midway Solar Project site is suitable for solar development and would support Colorado power providers in achieving that state required standard. The solar resource is present and considered sufficient to produce 100.2 MW of renewable energy. In addition, the Project property provides enough space for construction of the solar arrays and is located immediately adjacent to existing substations for a Project interconnection. Multiple utilities along the Front Range have issued RFPs for solar renewable energy sources to satisfy those local, state, and federal statutes. The Project would satisfy this demand by supplying 100.2 MW of solar generated renewable energy to be distributed to utility customers along the Front Range.

5.201(7) Analysis of Structural Alternatives to the Project

Meeting future energy demands without development of renewable energy sources would require the expansion of currently operating coal or gas facilities within EPC. Other structural alternatives would include different Project locations. Finding locations where large amounts of electricity generation can be injected into the transmission grid is difficult. Prior to commencing the application process to develop this site, numerous analyses were conducted on potential sites throughout Colorado to assess feasibility. Prior to the selecting the Project site location, the Project Company analyzed approximately 20 site locations within El Paso County for utility-scale solar development feasibility. The analysis began with a desktop review of multiple layers of GIS data to identify sites characterized by large (1,000 acres), open tracts of land, with minimal slope, free of environmental constraints and in close proximity to electrical power transmission. Site reconnaissance were then conducted to verify the desktop analysis and to glean additional information. Of the potential site locations analyzed, the Project site location was selected due to its location adjacent to two substations where available capacity was anticipated. In addition, several transmission lines transect the FRMW site location. Co-locating utility-scale solar development with existing electrical power transmission infrastructure significantly reduces a Project's environmental and visual impacts.

5.201(8) Description of Need for the Proposed Development:

5.201(8)(a) Present Population of Area to be Served and Population When Operating at Full Capacity

If constructed to the maximum size allowed by the interconnection, the solar array, when commissioned, could serve an estimated 16,400 households. Since the population served is dependent upon the utility providing the energy, the exact population to be served is not known at this time. The population to be served would be determined upon the execution of a PPA. However, multiple utility off-takers along the Front Range have recently issued RFPs for renewable energy. The Project would support the need for renewable energy by supplying approximately 100.2 MW of solar produced renewable energy to one of the utility off-takers that distribute electricity to customers along the Front Range.

5.201(8)(b) Predominant Type of Users or Communities to be Served

Predominant users would be customers of a commercial utility company. The utility off-taker would be determined upon the execution of a PPA.

5.201(8)(c) The Percentage of Design Capacity at Which the System is Currently Operating

Not applicable

5.201(8)(d) If Proposal is for a New Facility and the Capacity Exceeds a ten-year Projected Increase in Demand, a Detailed Explanation of the Excess Service Capacity and Cost

The Project would not exceed the ten-year projected increase in electric demand.

5.201(8)(e) Relationship to the Applicants Long-range Planning and Capital Improvement Programs

The Purpose of the Project is construct, operate and maintain a 100.2-MW photovoltaic solar facility to provide clean, cost effective, renewable energy. The need for the Project was established by multiple factors. Colorado has a RES statute (Section 40-2-124, C.R.S.) requiring 30% of retail energy sales to be derived from renewable generation by 2020 from investor owned utilities, and 10% for large municipal utilities and cooperatives. While some utilities are in full compliance with the RES, other utilities have not yet achieved compliance. The Project would allow cost effective solar energy to be delivered to those entities. In addition to the RES, however, other statutory and policy directives, including but not limited to the Colorado Governor's Climate Action Plan, and local initiatives of Colorado rural cooperatives, municipal utilities, and generation and transmission associations are driving an increased need for clean, renewable sources of electricity that the Project intends to meet, in part. The cost of solar energy generation continues to decline making it more competitive with other sources of electricity generation, which has increased utility companies' demand for procuring solar beyond requirements established by the state.

5.201(8)(f) Description of User Needs and User Patterns to be Fulfilled by the Project

Not applicable.

5.201(8)(g) Description of Relationship of the Project to Other Existing and Planned Utility Facilities of a Similar Nature, Other Communication or Energy Generation and Transmission Facilities, Local Government Capital Improvement Programs and Special District Expansion Programs

Not applicable.

5.201(9) Environmental Impact Analysis

5.201(9)(a) Land Use:

5.201(9)(a)(9)(i) Describe how Proposed Development will use Existing Easements or Rights-of-way for any Associated Distribution or Collector Networks

The Project would tie into one of two existing substations within the proposed WSEO boundary. Due to the Project location, the Project would not require a transmission line to extend outside of the Project boundary. Power would be transmitted along one of the existing transmission line corridors associated with the two existing substations. Multiple easements are located on the Project (**Appendix A7**). The Project would cross some of these easements with Project facilities and would submit easement crossing agreements prior to the ground disturbance of each crossing.

5.201(9)(b) Information Regarding Other Utility Facilities:

5.201(9)(b)(i) Map Showing Existing Major Facility of a Public Utility within the County of the Type Proposed for Development

CSU owns and operates the Clear Springs Ranch Solar Farm approximately six miles to the north of the Project site. CSU is a municipal utility that distributes solar energy to residents of Colorado Springs. The facility produces 10 MW at full capacity, at present (**Appendix C**). EPC has approved four additional phases of the Clear Springs Ranch Solar Farm. However, construction is not planned for additional phases at this time. While the Project is currently that largest that is seeking approval from EPC, a larger project has been constructed in neighboring Pueblo County.

Two existing substations are located in the southwestern portion of the proposed Project boundary; however, the substation properties are not included within the proposed Project area. The Midway substation is operated by the Western Area Power Administration (WAPA), a federal power marketing agency within the U.S. Department of Energy (DOE) and the Public Service Company of Colorado (PSCo) substation is owned by Xcel Energy. Three public utility transmission lines converge at the Midway substation including Black Hills, CSU, and Tri-State. The PSCo substation is directly adjacent to the WAPA substation.

5.201(9)(b)(ii) The Design Capacity of Each Such Facility, the Excess Capacity of Each Such Facility and the Percentage of Capacity at Which Each Such Facility Operates

Clear Spring Ranch Solar Farm was built to produce 10 MW at maximum production capacity. The two substations have capacity to accommodate the Project as proposed.

5.201(9)(b)(iii) Can Present Facilities be Upgraded to Adequately Accommodate a Ten-year Projected Increase in Demand for Services to be Offered by the Proposed Project

There are four additional phases planned for Clear Springs Ranch Solar. However, the 10 MW maximum capacity once all phases are constructed would not satisfy the need for increased renewable energy production as mandated by the Colorado RES statute. Additional renewable energy facilities are needed to meet the demand.

5.201(10) For Power Plant Applicants, a Map Locating and Describing Resource Areas to be Utilized as Source of Energy

Radiation from the sun is the source of energy. No map is included for this reason.

5.201(11) For Applicants Seeking Permit for the Construction of Transmission Lines or Substations:

5.201(11)(a) Computer Modeled Electromagnetic Field Measurement Within the Proposed Transmission Line Easement for the Portion of the Transmission Line Between Substations and Transition Sites

The proposed Project would include a short transmission line that would connect to one of two substations located adjacent to the Project, within the Project boundary (**Appendix E**). The Project's transmission line would be co-located with several existing transmission lines. Given this colocation, electromagnetic fields (EMF) measurements were not modeled for the Project.

All transmission lines produce EMF; however, the fields are the strongest directly under the lines and drop dramatically the farther away you move. According to the National Institute of Environmental Health Sciences and the Electric Power Research Institute, a magnetic field immediately beside a 230 kilovolt transmission line would drop to levels below typical residential background levels at a distance of 300 feet*. Given that the closest residential structure would be located over 1,500 feet from the Project's transmission line, the associated EMF levels are not anticipated to have an adverse impact on residents in the surrounding area. As such, the Project has requested a waiver of the requirement for the submittal of a computer modeled electromagnetic field measurement at the time of a WSEO application.

*(<https://www.xcelenergy.com/staticfiles/xel/Corporate/Corporate%20PDFs/HiwathaElectricMagneticFields.pdf>)

5.201(11)(b) Measures Taken to Comply with the Concept of Prudent Avoidance with Respect to Planning, Siting, Construction and Operation of Transmission Lines

The Project was sited adjacent to two existing substations in part to avoid construction and operation and maintenance on a lengthy transmission line.

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 Dave Iadarola, project manager, at (720) 732-3154.

Respectfully submitted,



Matt Gilhousen
Vice President
Front Range-Midway Solar Project, LLC

Appendices

A	Application Form
B	Certification of Deed Research and Notification to Mineral Owners
C	Vicinity Map
D	Interconnection Agreements
E	Preliminary Site Plan
F	WSEO Overlay Plan
G	Project FONSI
H	Noxious Weed Management Plan
I	Summary of Project Lighting Memo and Lighting Plan
J	List of Adjacent Property Owners
K	Final Environmental Assessment
L	Class III Cultural Resources Inventory
M	Wetlands, Waterbodies, and Threatened, Endangered, and Species of Special Concern Report; USFWS CPW Correspondence
N	El Paso County Zoning Map
O	Land Use/Land Cover Map
P	Public Lands Map
Q	Critical Issues Analysis
R	Air Quality Management Plan
S	Transportation Memorandum, Haul Route Plan, and Traffic Data Collection
T	Operations and Maintenance Plan
U	Decommissioning Plan
V	Preliminary Drainage Report
W	Preliminary Emergency Response Plan
X	Fire Protection Plan and Hanover Fire District Commitment Letter
Y	Visual Simulation and Solar Glare Hazard Analysis Tool Report
Z	Preliminary Geotechnical Engineering Report
A1	Feasibility Summary Report
A2	Soils Map
A3	NexTracker Design Bulletin-Snow Stowing
A4	Phase I Environmental Site Assessment
A5	Regional Setting Map
A6	Existing Transmission Lines Map
A7	Site Plan with Easements
A8	Physical Constraints Map
A9	Wigwam Mutual Water Company Commitment Letter