

Pike Solar Project
El Paso County 1041 Application
Applicant: Pike Solar LLC
Initial Submittal: April 2021



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Acronyms

AC – Alternating Current

APEN – Air Pollutant Emission Notice

CPW – Colorado Parks and Wildlife

CSU – Colorado Springs Utilities

CWA – Clean Water Act

DC – Direct Current

ESA – Endangered Species Act

FAA – Federal Aviation Administration

kV—Kilovolt

MW- Megawatt

PCD – Planning and Community Development of El Paso County

Phase I ESA – Environmental Site Assessment

PPA – Power Purchase Agreement

PPRBD – Pikes Peak Regional Building Department

PV – Photovoltaic

SCADA - Supervisory Control and Data Acquisition

SPCC Plan – Spill Prevention, Control, and Countermeasure Plan

SWMPP – Stormwater Management Program Plan

USFWS- United States Fish and Wildlife Service

USACE – United States Army Core of Engineers

WSE-O – Wind/Solar Energy Overlay

Article 3: Permit Applications

Section 2.303: Submission Requirements for all Permit Applications

(1) Completed Application Form

El Paso County 1041 Application is included in **Appendix A– 1041 Application Form** including a legal description of the Project property.

(2) Additional Information, as required by the Director

Updates added per EDARP comments.

(3) Certification of Deed of Mineral Owners and Notification of Mineral Owners of Surface Development

Please see **Appendix B– Certification of Notice to Mineral Estate Owners**. This verifies that the Applicant has researched the mineral estate owners and identified the list through the El Paso County Clerk and Recorder. At the time the Applicant receives a hearing date notice, the Applicant will provide notice to such mineral estate owners more than 30 days prior to the hearing date and submit verification to the county.

(4) Information describing the applicant

(a) Names, Addresses, including email and fax, organizational form, and business of the applicant and, if different, the owner of the Project

The Applicant for the 1041 Permit is Pike Solar LLC. Pike Solar LLC and JSI Construction Group LLC are wholly owned subsidiaries of juwi Inc. (“juwi”) and any documentation referencing juwi also pertains to JSI Construction Group LLC and Pike Solar LLC. Pike Solar LLC will be the owner of the Pike Solar Project (“Project”).

Applicant: Pike Solar LLC
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Boulder, CO 80301
Attention: Jay Sonnenberg, General Counsel
Contact: Sophie Kiepe, Project Planner
Phone: 720.245.2922
Email: skiepe@juwiamerica.com
Fax: 303.442.1981
Organization Type: a Delaware limited liability company
Business: Solar Project Development

Project Owner: Pike Solar LLC
The Project address will be determined upon obtaining a building permit.

(b) Names, Address, and Qualifications, including those Areas of Expertise and Experience with Projects Directly Related or Similar that Proposed in the Application, of Individuals who are or will be Responsible for Constructing and Operating the Project

JSI Construction Group, LLC will be responsible for the engineering, procurement, and construction of the Project. As such, the personnel overseeing the project are listed below.

JSI Construction Group, LLC
1710 29th Street, Suite 1068
Boulder, CO 80301

1. Mark Marion – SVP, Projects Group

Mr. Marion has direct supervision over the project management, permitting, procurement and construction functions and employees at juwi. His primary responsibility for projects in late stage development and under construction is to ensure the company is meeting its commitments to project stakeholders. Mr. Marion has had these responsibilities for over five years at juwi. Mr. Marion was previously a project manager for juwi responsible for projects in Arizona, Florida, Ohio and Utah. Prior to joining juwi., Mr. Marion worked in the Clean Energy & Fuels group of a technology consulting company for four years. He holds bachelor's and master's degrees from Yale University in Chemical Engineering.

2. John Tembrock – VP, Operations

Mr. Tembrock is the Vice President of Operations for juwi. In this role, Mr. Tembrock is responsible for managing, executing, and monitoring the engineering activities for all juwi projects. Mr. Tembrock has 20 years of experience designing and implementing industrial control and data acquisition systems. He has worked in the electric utility, semiconductor, and high-speed manufacturing industries. He has 14 years of experience designing and implementing environmental information systems for EPA air permitted facilities. In this role, he delivered more than 25 custom systems to large and medium utilities and facilities. His responsibilities included customer consultation, design, commissioning, and custom solutions. Prior to this, Mr. Tembrock designed and implemented facility wide ultra-pure water control systems in the semiconductor utility industry. He has been responsible for financial performance, planning, and implementation of many projects within the water purification industry and power industry.

3. Brian Vickers, PMP- Project Manager

Mr. Vickers is a project management professional with over 30 years of experience in managing projects in the environmental services and renewable energy industries. For juwi Inc. he is managing nearly 320MW AC of utility-scale photovoltaic power plants. Mr. Vickers' primary responsibilities include leading juwi's engineering, procurement, and construction activities to deliver a successful Pike Solar Project. Mr. Vickers has an MBA in Technology Management from the University of Phoenix and an MS in Hydrology from the University of Arizona.

4. Ryan Clegg – Project Engineer

Mr. Clegg is a project engineer at juwi. He joined juwi in 2018 as an Operations Center Engineer, where his responsibilities included real-time plant monitoring, responding to and troubleshooting outages, and performing both preventative and reactive maintenance on operating facilities. He transitioned to project engineering at the beginning of 2020, where he is involved with the equipment selection, layout design, and

production of construction drawing packages for two utility-scale PV solar projects. Mr. Clegg holds a BS in Mechanical Engineering and a BA in Plan II Honors from the University of Texas at Austin.

5. Sophie Kiepe – Project Planner

Ms. Kiepe is the principal point of contact for the Pike Solar 1041 Application. At juwi, she oversees various projects within the portfolio to ensure development milestones are met in compliance with applicable regulations. Prior to joining juwi's Project Development team, she worked at El Paso County Planning & Community Development as Planner I. Ms. Kiepe received her Master's in Urban Planning from New York University's Robert F. Wagner School of Public Service.

(c) Authorization of application by Project Owner

Not Applicable. Pike Solar LLC is the Project Owner for the Pike Solar Project.

(d) Documentation of the applicant's financial and technical capability to develop and operate the Project, including a description of the applicant's experience developing and operating similar Projects.

Financial capability: juwi is a private, Delaware corporation that was founded in 2008 and is a subsidiary of its German parent, juwi AG. juwi's ultimate parent company is an exchange-traded utility company in Germany named MVV Energie. juwi has a proven track record of arranging and securing over \$1 billion in equity financing for 22 solar energy generation projects with an aggregate nameplate capacity over 500 MW. Over time juwi has created strong and lasting relationships with a well-vetted and qualified group of strategic equity investors interested in pursuing ownership of the solar facilities that juwi develops and constructs. From this base of strategic equity investors, juwi can finance the construction of its projects using a milestone payment structure. juwi secures financing for the projects through a transfer of ownership of the project company to the equity investor after the project's offtake agreement is secured and prior to construction Notice to Proceed. As an integral part of the financing process, juwi executes an EPC contract to build the projects and an Operations and Maintenance ("O&M") contract to operate and maintain them. juwi executes O&M contracts with a minimum term of two years, but more typically, investors desire longer terms.

juwi can execute a variety of financial structures from a diverse set of capital providers for construction and long-term financing of the projects. Recently juwi has been successful financing projects in North America with unregulated subsidiaries of large investor-owned utilities, including Duke Energy Renewables, Dominion, PSEG Solar Source and AEP Renewables. These entities have institutional experience in owning and operating power generation facilities, tax exposure to efficiently utilize the benefits of the Investment Tax Credit ("ITC"), and large balance sheets with which to finance projects. Financing the Pike Solar project in a similar manner would be "on balance sheet" and would not require debt. In February of 2021, juwi launched a financing process to secure the funding of the Pike Solar project, with a top tier investment bank acting as juwi's advisor.

Technical capability to develop: juwi has all the in-house capabilities to develop utility-scale solar energy projects, including the Pike Solar Project. juwi's project team consists of renewable energy professionals with the necessary credentials and aptitudes in engineering, electrical design, planning and policy, real estate, law, and construction management. Additionally, the company operates in close coordination, and with support, of a network of outside consultants and counsel. These subject matter experts often focus on niches of the renewable energy industry and have worked on multiple juwi projects elsewhere in the country. By combining in-house professionals with external consultants, juwi can tailor its development approach to a specific

development context by incorporating best management practice and local knowledge to achieve superior outcomes.

juwi maintains long-term relationships with a variety of top-tier module suppliers and employs demonstration facilities to test potential suppliers' equipment. Globally, juwi AG has tested close to one hundred products in its test facilities. The use of actual operating data benefits juwi customers by improving standards of equipment procurement.

Technical capability to operate: Although juwi is not the long-term owner of its projects nor will be the owner of the Pike Solar Project, often, the company is enlisted to provide operation and maintenance (O&M) services to projects. Should juwi be contracted to provide O&M services, it has the necessary personnel and technology capable of maintaining the facility.

juwi currently provides O&M services to more than 230 MW of North American operating capacity and has been providing these services to many of its self-constructed facilities beginning at commercial operation. juwi's Operations Center has extensive experience gained from many years operating utility-scale solar projects.

juwi has developed a plant monitoring and control system which maximizes energy generation while minimizing the downtime associated with planned and forced outages. The system also provides for the necessary control and dispatching functionality required by sophisticated utilities and grid operators. The juwi supervisory control and data acquisition ("SCADA") system is among the most advanced in the industry. It delivers a high-level overview of plant operations in addition to environmental sensing and real-time electrical data associated with subsystems down to the individual array. More importantly, the system is designed to provide operators with a sub-second response to important events including communications outages, inverter failures, and breaker trips.

The existing Operations Center at juwi's headquarters in Boulder consists of a team of engineers and a SCADA system in real-time communication with the facilities that juwi operates. The Operations Center is staffed seven days a week, from sunrise to sunset, for the Eastern, Central, Mountain, and Pacific time zones. The Operations Center engineers are tasked with performing energy generation analyses, tracking and identifying possible irregularities in production, and categorizing and recommending design changes within the SCADA system to ensure the most effective monitoring and analysis in the future. The Operations Center Specialists serve as first responders to plant alarms and malfunctions and are responsible both for initiating troubleshooting procedures and for ensuring proper follow-up and completion of necessary repairs. Ultimately, the Operations Center serves as a communications hub for Project stakeholders, including juwi personnel, subcontractors, and Project owners.

Experience developing and operating: juwi has developed and built five projects in five different Colorado counties (Larimer County, Las Animas County, Adams County, Chaffee County, and El Paso County). The projects in the following table represent the utility scale solar PV projects that juwi has built or is currently developing under an executed power purchase agreement with the applicable utility. In addition, juwi AG has built over 3.0 GW of solar globally. juwi has never failed to reach commercial operation on a project under contract. For the projects shown on the succeeding pages, juwi performed design, procurement, and construction. juwi also served as the EPC contractor and managed services to bring the projects online.

Project, Location	Offtaker	MW _{DC}	Year Built
Dolores Canyon Solar, Colorado	 TRI-STATE	138	2023
Coyote Gulch Solar, Colorado	 TRI-STATE	149	2023
Axial Basin Solar, Colorado	 TRI-STATE	177	2023
Spanish Peaks II Solar, Colorado	 TRI-STATE	52	2023
Spanish Peaks I Solar, Colorado	 TRI-STATE	124	2023
Palmer Solar, Colorado	 Colorado Springs Utilities it's how we're all connected	82	2020
Trout Creek Solar, Colorado	 Sangre de Cristo ELECTRIC ASSOCIATION	2.7	2019
Pavant Solar II, Utah	 PACIFICORP A MIDAMERICAN ENERGY HOLDINGS COMPANY	63	2016
Pavant Solar III, Utah	 PACIFICORP A MIDAMERICAN ENERGY HOLDINGS COMPANY	26	2016
San Isabel Solar, Colorado	 TRI-STATE	38	2016
Rawhide Flats Solar, Colorado	 PLATTE RIVER POWER AUTHORITY	36	2016
Victory Solar, Colorado	 IRSA	16	2016
Whitethorn Solar, California	 Western Area Power Administration	4	2016
Pavant Solar, Utah	 PACIFICORP A MIDAMERICAN ENERGY HOLDINGS COMPANY	62	2015
L&D Solar, New Jersey (EPC)	 PSEG	13	2015
PNM Projects, New Mexico (EPC)	 PNM	12	2015
PNM Projects, New Mexico (EPC)	 PNM	12	2015
Rockfish Solar, Maryland	 SMCO People. Power. Progress.	13	2015
Newman Solar, Texas	 Electric Company	13	2014
Essex Solar, Vermont	 GREEN MOUNTAIN POWER	4	2014
Badger I Solar, Arizona	 aps	19	2013

Milford Solar, Delaware	 DEMEC DELAWARE MUNICIPAL ELECTRIC CORPORATION	15	2012
Queen Creek Solar, Arizona		25	2012
Mill Creek Solar, New Jersey (EPC)		4	2011
Cactus Garden Solar, Nevada		0.6	2011
Blue Wing Solar, Texas		16	2010
Highwoods Solar, N. Carolina (EPC)		1.5	2010
Jacksonville Solar, Florida		15	2010
Wyandot Solar, Ohio		12	2010
Mars Solar, New Jersey (EPC)		2	2009

(e) Written qualifications of report preparers

The 1041 Letter of Intent is a product of JSI Construction Group LLC and Pike Solar LLC. The following consultant companies contributed to reports referenced herein. Applicant appreciates its network of consultants in Colorado, which have assisted in the El Paso County Wind/Solar Energy Overlay (WSE-O) and 1041 Application.¹

Pinyon Environmental, Inc. (“Pinyon”) - Pinyon is an environmental consulting company operating for more than 26 years. Pinyon is staffed with experts who offer a variety of services including Biological Resources, Cultural Resources, Regulatory Compliance, Air Quality analysis, and more. Pinyon has completed well over 3,000 Phase I Assessments and contributed to over 5,400 projects during the life of the company. Pinyon’s problem-solving professionals provide professional product to meet their clients’ needs.

CORE Consultants, Inc. (“CORE”) - CORE is an environmental consulting and engineering company with headquarters in Colorado, 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 micrositing, through construction management and operational compliance.

Terracon Consultants, Inc. (“Terracon”) - Terracon provided a range of environmental and geotechnical consulting services for the Project. Terracon is a 100% 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

¹ This does not reflect a comprehensive list of all contributors to the Project. juwi undertakes a comprehensive review of credentials and experience when selecting potential consultants for a project.

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.

Stantec Inc. (“Stantec”) - Stantec is an international professional services company originally founded as an environmental engineering firm in 1954. Stantec has diversified to provide a variety of engineering design and consulting services including transportation engineering. Stantec has been retained both by El Paso County and by juwi Inc. to perform road condition assessments in the County.

EMDEX LLC (“EMDEX”) - EMDEX is a company originating from Eneritech Consultants which was founded in 1982 to work on a variety of power-frequency electric and magnetic field (EMF) research projects. EMDEX staff has conducted EMF research and field measurements for numerous types of clients, including projects such as EMF characterization, source identification, and evaluation for various industrial, residential, and commercial environments.

(5) Information describing the Project

(a) Vicinity Map

See **Appendix C- Vicinity Map** depicting the code requested 50-mile buffer around the project site. The project will also have two haul routes from I-25 to the project site. These are depicted on **Appendix AI- Haul Route Map** with the respective exit numbers listed.

(b) Executive Summary of the project included scope and need

Scope. Pike Solar LLC proposes to construct, operate, and decommission the Pike Solar Project, a solar facility capable of generating up to 175 megawatts (“MW”) alternating current (“AC”) of photovoltaic (“PV”) solar energy. This Project will also have potential for up to a 75 MW battery energy storage system (“BESS”). The proposed Solar Project consists of single-axis tracking ground-mounted solar arrays and associated infrastructure designed on approximately 1,350 acres within the proposed 4,998.37-acre WSE-O boundary on land owned by the City of Colorado Springs (“City”) on behalf of its enterprise Colorado Springs Utilities (“Utilities”) in El Paso County (“County”).^[1] The Project will be located within two parcels owned by Utilities including 56000-00-123 and 56000-00-140 in El Paso County, Colorado.

The equipment in this Project facility system include solar panels, racking equipment, local power stations (each with a DC to AC inverter, medium-voltage transformer, and associated SCADA equipment), weather sensors, underground 1.5kV DC collection lines, underground 34.kV AC collection lines, a 230 kV overhead transmission line that is approximately 1,400’ long, a battery energy storage system, a local substation and control building with associated metering, protection and SCADA devices, and maintenance facilities. Lastly there will be 9 laydown yards located throughout the site for construction materials. A depiction of these locations can be seen in our **Appendix D- 1041 Map Plan**.

^[1] Colorado Springs Utilities is a charter-created municipal enterprise of the City of Colorado Springs, Colorado. The City owns and operates the Colorado Springs Utilities, which includes the electric light and power system, in accordance with the home rule charter of the City. Accordingly, Colorado Springs Utilities and City of Colorado Springs act in coordination as it pertains to issues covered by such charter.

The Solar Project will be a single-axis PV tracking system that connects directly to the Utilities' existing 230-kilovolt ("kV") transmission system. In its first year of operation, the facility will have a generating capacity of approximately 485,785 MWh, directly powering local homes, business, and institutions.

The Utilities will also be requesting an expansion to their substation in order to accommodate for the power generated from this project. Williams Creek is an existing 230kV ring bus substation that will be expanded into a breaker and a half in bays 2, 3, and 4 with the installation of six circuit breakers. This expansion will accommodate a loop in of the existing 230kV NX-CL transmission line and a renewable customer tap. The substation plot does not require expansion and updates to drainage, grading, ground grid, cable trench, fencing, yard rock, conduit, cabling, steel, bus, instrumentation, protection and control, and substation equipment will only be installed or modified as required for the installation of the new equipment. No work for other future expansion will be considered.

Need. The key reasons that the Utilities desires to acquire renewable energy additions are to achieve the Energy Vision renewable energy goals, to respond to trends in customer surveys indicating interest in the Utilities expanding its renewable energy portfolio, to respond to Utilities' customer base to move beyond the Renewables Portfolio Standards ("RPS") and to prepare for any potential increased Colorado or national RPS.

The Utilities' Board approved the 2020 Energy Vision in 2011 and amended it in 2016 through the approval of the Electric Integrated Resource Plan ("EIRP"). The goal of the Utilities is to provide 20% of its total electric energy through renewable resources with at least one percent from distributed generation sources. The Utilities determined the need of approximately 250,000 MWh per year of additional energy from renewable resources. When the Request for Proposal ("RFP") was released, the Utilities requested proposals from 25,000 MWh up to 250,000 MWh of energy per year to deliver starting in 2020 and would consider proposals that could deliver by 2023. juwi submitted its bid (RFP-GM-141545) on May 31, 2018 and the Project was accepted in February 2019. The Project presented in this application will plan to be fully commissioned by December 31, 2023.

In addition to Utilities' needs described above, the Pikes Peak Area of Council Governments (PPACG) Regional Sustainability Project authored a plan called "Looking to Our Future - Pikes Peak Region 2030" which developed a strategy and vision for the future of the region. The plan is based upon the principles of sustainability by balancing economic vitality, healthy community, and stewardship of natural resources for current and future generations. A highlighted component of the plan is energy; specifically: (1) decreasing overall energy use through conservation and energy efficiency and (2) the production and consumption of renewable and/or sustainable energy.

(c) Plans and Specifications of the Project in sufficient detail to evaluate the application against the Applicable Review criteria.

Please see **Appendix D– 1041 Map Plan** for a detailed Project layout, resource maps, and relevant considerations to the proposed Project. The Map Plan identifies the planned use for the land and include several supplemental attachments providing details as to the surrounding ownership, haul routes for construction, easements and existing infrastructure, physical constraints that the Applicant is working around, and the overall siting envelope of the Project. The package provides all details associated with the Project design and factors assessed for the site.

(d) Description of alternatives to the Project considered by the Applicant.

As a trusted Colorado-based energy developer and builder, juwi has cultivated critical relationships with government and Special District landowners in El Paso County. The relationships enable juwi to have optionality when exploring site locations and project design.

Besides Utilities’ land, there were two alternative locations considered for the Project: 1) juwi considered land owned by Woodmoor Water and Sanitation (“Woodmoor”) adjacent to the juwi-developed, built, and operated Palmer Solar Project and 2) juwi considered using its lease covering up to 3,100 acres with the Colorado State Land Board (CSLB) east of the Williams Creek Substation substation. Applicant undertook a comprehensive analysis of the alternative locations and determined the current site and design was best considering Utilities’ renewable energy goals, available land rights, electrical interconnection, and other development criteria based upon juwi’s extensive experience proposing solar energy projects across Colorado. Since the Utilities was the owner of the land where the proposed Project site is shown, this ultimately was chosen for continuity into the Williams Creek Substation.

(e) Schedules for designing, permitting, constructing, and operating the Project, including the estimated life of the Project.

Milestone	Start	Finish
1. Major Permit Approvals (WSE-O, 1041)	Q1 2021	Q1 2022
2. Secondary Approvals (Site Plan Review, PPRBD permit)	Q4 2021	Q2 2022
3. Pre-construction (surveys, engineering)	Q3 2020	Q2 2022
4. Site Improvements, Substation and Project Construction	Q1-Q2 2022	Q4 2023
4.1 Civil Construction (site grading; roads)	Q1-Q2 2022	Q4 2022
4.2 Post Rack Module Install	Q2 2022	Q3 2023
4.3 Electrical Install	Q2-Q3 2022	Q3 2023
4.4 Construction of Interconnection Facilities	Q2 2023	Q4 2023
5. Initial Energization	Q4 2023	
6. Plant Commercial Operation	Q4 2023	
7. Seeding and close out Stormwater Permit	Q4 2022	Q4 2023
8. Estimated life of the Project/1041 Timeframe	2023	2058
9. Final Decommissioning Plan submittal	Q4 2058	
10. Begin Active Revegetation and Site Restoration	Q2 2059	

(f) The need for the Project, including a discussion of alternatives to the Project that were considered and rejected; existing/proposed facilities that perform the same or related function; and population projections or growth trends that form the basis of demand projections justifying the Project.

Several factors contribute to the need for the project:

1. The Utilities has developed a plan of action in response to outside requests and customer feedback to expand the renewable energy portfolio powering the grid.
2. The Utilities will need to replace some existing power sources to the grid as well as respond to increased demand stemming from population growth.
3. Utilities must meet the State’s current RPS and prepare for anticipated increases in RPS requirements in coming years.

Further, the RFP-GM-141545 was released by Utilities to address these same needs, namely:

- Legislative requirements
- Customer feedback

- Capacity availability

Utilities' developed a Sustainable Energy Plan through their Energy Vision. Within this plan, the Utilities will achieve an 80% carbon reduction and retire all coal generation by 2030, including the Martin Drake Power Plant. The goal of the plan is to modernize the grid with new technologies such as the Project within this Application. The Utilities' projected demand growth rate is 0-1% over the next 10 years and has a peak electric load of 908 MW.

The State of Colorado has also published additional literature encouraging increased renewable facilities and enlisting a need for growth to utilities such as CSU. On January 14, 2021, Governor Polis released the "Greenhouse Gas Pollution Reduction Roadmap." In 2019, Gov. Polis partnered with the Colorado General Assembly to pass 14 pieces of climate legislation, including the Climate Action Plan to Reduce Pollution (House Bill-1261), which established science-based targets of reducing statewide greenhouse gas (GHG) pollution 26% by 2025, 50% by 2030, and 90% by 2050 from 2005 levels. Governor Polis directed state agencies to develop a roadmap to achieving these goals with a whole-of-state effort, focusing particularly on the nearer term 2025 and 2030 targets. Utilities committed to the Governor's plans and specifically agreed to reduce pollution by at least 80% and transition to renewables.

The need for this Project is shaped not only from the State of Colorado standards, but also upon the Utilities' long-term goals and benefits shown within the scope of the specific RFP. Support for increasing renewable energy is illustrated in community interest and local programs developed by groups, such as the Pike Peak Area of Council Governments. This local council authored a document titled, "Looking to Our Future- Pikes Peak Region 2030," which described goals toward increasing renewable energy.

In assessing all options for the Project, the Utilities RFP 141545 proposed many alternative interconnection locations. The first option was located at the Williams Creek Reservoir and another at North Clear Springs Ranch. Each location could support up to 12 MW, with the Applicant being responsible for funding the cost of adding additional capacity to these locations. Additionally, interconnection availability exists at four separate Colorado Springs Airport sites, which can each support up to 10 MW, but the Applicant would be responsible for connecting costs.

Multiple points of interconnection were considered including the following that would not connect directly into the Utilities' system but that could serve as a delivery point:

- Midway Substation - interconnected to the Western Area Power Association Colorado Missouri (WACM) at the Midway substation
- Monument Substation - interconnected to Tri-State Generation and Transmission Association (TSGT) at the Monument Substation
- Fuller Substation - interconnect to Xcel Energy (Xcel) and Tri-State Generation and Transmission Association (TSGT) at the Fuller Substation

These third-party points of interconnection require additional costs associated with wheeling transmission to a Utilities delivery point. Bearing in mind Utilities' goal of delivering cost effective renewable energy to the citizens of Colorado Springs, the Applicant decided against using these alternatives. Ultimately, the Williams Creek Substation was determined to be the best and most economic location for interconnection given that it was recently upgraded during juwi's construction of the Palmer Solar Project.

Beyond project economics and capacity availability at the Williams Creek Substation alone, the Applicant recognized an opportunity to build adjacent to the existing Palmer Solar Project, multiple high voltage transmission lines, an electrical substation, gas pipelines, and a landfill in its effort to minimize the Project's visibility and to alleviate potential conflicts with the citizens of Colorado Springs and Fountain. Utilities' land

was chosen instead of land owned by one of the two alternatives in the area for the reasons discussed above in 5(d).

According to the U.S. Census Bureau El Paso County experienced a 15% growth rate between 2010 and 2019. Projections estimate continuous county growth and needs for energy to satisfy such growth.

(g) Description of relevant conservation techniques to be used in construction and operation of the Project.

During the construction phase of the Project, the Applicant plans to create a footprint on only the lands necessary to build the Project. Wildlife, cultural, and wetland reports were rendered in effort to minimize impacts. **Appendix J- CPW Correspondence** contains a letter from the Colorado Parks and Wildlife Department having reviewed our proposed project as well as the biological reports conducted on the property to confirm our plan of action to minimize impacts to the wildlife and their habitats on the site. Surveys will be conducted prior to construction to ensure there are no threatened or endangered species found on the property or appropriate restrictions are taken in the area. Precautions will be taken including exclusionary fencing that is safe for wildlife and transmission lines are only planned for short distances required for interconnection.

Appendix R- Grading and Erosion Control Plan and **Appendix- S- Drainage Plan** will be used to maintain the integrity of the lands and for erosion control.

The Integrated Noxious Weed Management Plan (**see Appendix X**) will be used to help prevent non-native vegetation from growing on the Project site.

Appendix AD- Lighting Plan provides an outline for how artificial lighting will be used on the Project during time of construction and once the Project becomes operational. The plan notes that lighting will be used on an ‘as needed’ basis. Construction is limited to daylight hours so artificial lighting will be extremely limited. In addition, lighting will only be used for motion sensing near the equipment once the Project is operational. Limiting our lighting efforts is another conservation technique in place for the Applicant.

Traffic for the construction will be managed through **Appendix AJ- Traffic Memo** which estimates a volume between 150-202 vehicle trips per day during construction. The construction team plans to work within the 7 a.m.- 7 p.m. timeframe Monday through Saturday and maintain speeds within the site at 11 mph. This are designed for conservation techniques as well as limiting impact on the community.

(h) Description of demands that this project expects to meet to meet and basis of those demands

The demand for this Project is generated from the Utility RFP that was awarded to the Applicant. This is attached as **Appendix AL- Utility Request For Proposal**. The RFP ultimately was generated from the goals founded from the Utility Energy Vision Sustainable Energy Plan. Through the Sustainable Energy Plan, the goals of the utility will be to reduce carbon emissions at least 80% by 2030 and 90% by 2050, increase renewable energy, retire all coal generation by 2030 and reduce reliance on fossil fuels. The Martin Drake Power Plant is set to retire in 2030. The demands through this plan have allowed for solar energy growth through projects like Pike Solar, as well as upgrades to the Williams Creek Substation, in order to accommodate for the increased power provided to the system.

The Sustainable Energy Plan follows legislative and regulatory initiatives by the State of Colorado to reduce greenhouse gas emissions. The Colorado Greenhouse Gas Pollution Reduction Roadmap is a plan to achieve

100% renewable energy by 2040 and enlists Colorado utilities to join in the commitments. In 2019 legislative session Colorado passed House Bill 19-1261, the Climate Action Plan to reduce Pollution. To ensure Colorado continues to progress with this bill, Governor Polis directed state agencies to develop the comprehensive roadmap. The commitment from the Utility falls in line with their existing Sustainable Energy Plan and overall demand for cleaner energy in the State of Colorado.

The Project will produce 175 MW AC at maximum capacity and is anticipated to have a 35-year lifespan. The Project PPA is attached as **Appendix E- Power Purchase Agreement**, which evidences the Utilities attempting to meet the power needs of its local customer base. The PPA was executed between Colorado Springs Utilities, an enterprise of the City of Colorado Springs (“Utilities”) and Pike Solar LLC (“Seller”) on September 14, 2020. The PPA outlines the terms and conditions by which the Seller will sell and dispatch all energy generated by the Project to Utilities including a guaranteed energy generation requirement.

(i) Adjacent Property Owners

The following list includes the unique property owners (including Woodmoor Sanitation District No. 1 and land owned by City of Colorado Springs) that share a property line with the parcels of the proposed Project.

Table 1: Adjacent Property Owners

APN	Last Name	First Name	Address	City	State	Zip Code
56000-00-137	DISTRICT	WOODMOOR				80132
56000-00-158	NO 1	WATER AND SANITATION	1845 WOODMOOR DR	MONUMENT	CO	
56000-00-130	LANDFILL INC	BROADACARE	1235 NORTH LOOP W STE 205	HOUSTON	TX	77008
56000-00-153	PROPERTIES V LLC	CORUNDUM	1 S NEVADA AVE STE 200	COLORADO SPRINGS	CO	80901
46000-00-058	EL PASO	COUNTY	27 E VERMIJO AVE	COLORADO SPRINGS	CO	80901
46000-00-041	CITY	OF COLORADO SPRINGS	PO BOX 1575	COLORADO SPRINGS	CO	80901
46000-00-046						80202
56000-00-030						
46000-00-015	STATE	OF COLORADO	633 17TH ST STE 1520	DENVER	CO	
56000-00-131						80817-9520
56000-00-029						
46000-00-019	RANCHES	HANNA	15680 HANOVER RD	FOUNTAIN	CO	

(6) Property rights, other permits and approvals

- (a) Description of property rights that are necessary or that will be affected by the Project, including easements and property rights proposed to be acquired through negotiation or condemnation**

Table 2:

Necessary Property Rights			
Property Right Type	Owner	Proponent	Purpose
Land Lease	City of Colorado Springs (Colorado Springs Utilities)	Pike Solar LLC	Authorizing use of CSU land for the Pike Solar Project (including substation)
Access Easement	Woodmoor Water & Sanitation District No. 1	Pike Solar LLC	Authorizing temporary access road through Woodmoor and Palmer Solar LLC land

Table 3:

Property Rights affected by Project			
Property Right Type	Owner	Proponent	Purpose
Encroachment Agreement	Public Service Company of Colorado (Xcel)	Pike Solar LLC	Agreement authorizing transportation access and MV cable across 225ft wide easement
Encroachment Agreement	Mountain View Electric Association (Tri-state)	Pike Solar LLC	Agreement authorizing transportation access and MV cable across 100ft wide easement
Encroachment Agreement	Kinder Morgan	Pike Solar LLC	Authorizing transportation access across existing gas pipeline easements

*The negotiated encroachment agreements may be included in our Site Development Plan submittal.

- (b) A list of all other federal, state, and local permits and approvals that will be required for the Project, together with any proposal for coordinating these approvals with the County permitting process. Copies of any permits or approvals related to the Project that have been granted.**

Table 4: Required Permits

Permit	Agency	Notes
Federal		
US Army Corps of Engineers (USACE)	Nationwide Permit- not required	Wetlands delineations reports have been submitted to USACE for Jurisdictional Determination. The final determination was made that no nationwide permits are required and there are no jurisdictional waters on the Project site. No further action is required.
Spill Prevention Control and Countermeasure (SPCC)	Environmental Protection Agency (EPA)	SPCC Plan required for aggregate oil containment on-sites that exceed 1,320 gal. of oil-filled transformers
State		
Air Pollutant Emission Notice (APEN)	Colorado Department of Public Health & Environment - Division of AIR Quality	No major permitting related to air quality or emissions is expected for the project. To comply with State regulations, a notice to proceed and terminate is required from the State of Colorado.
Construction Stormwater General Permit (NPDES)	Colorado Department of Public Health & Environment	Construction of the project requires application and approval by Colorado Water Quality Control Division to comply with regulations for stormwater discharges associated with construction activities. This will include development of a Stormwater Management Plan.
Temporary Access Permits	Colorado Department of Transportation	Temporary access permits will be obtained from CDOT for the two designated haul routes.
Haul Permits	Colorado Department of Transportation	Haul permits will be obtained from CDOT for loads that exceed specified size and/or weight requirements.
State Electrical Permit	State of Colorado Electrical Board- Department of Regulatory Agencies	This type of commercial solar energy generation facility requires inspections and approval by the State to adhere to electricity regulations.
County/Local		
Wind and Solar Energy Overlay (WSE-O)	El Paso County	In conjunction with this application is also a submittal for the WSE-O. This Overlay designation can be applied to any underlying zoning. A comprehensive application package will be submitted to the County that addresses planning issues and design considerations relevant to the El Paso County Master Plan and Policy Plan. The approval process includes coordination with County departments, agencies, and the public.
1041 Permit	El Paso County	In addition to WSE-O approval, the project meets criteria for Areas and Activities of State and Local Interest (1041 Permit). This application and permitting process can run concurrently with WSE-O, including meetings with the Planning & Community Development and Board of County Commissioner for approval. The project will adhere to conditions established through the 1041 process.
Site Development Plan	El Paso County	Site plan review is required before an application for a building permit. This review ensures project design is consistent with the El Paso County Code and conditions established in the WSE-O and 1041 permitting process.

Construction Permit	El Paso County	Permit will be obtained prior to Pike Solar Project construction
Erosion and Stormwater Quality Control Permit	El Paso County	El Paso County requires an Erosion and Stormwater Quality Control Permit prior to land disturbing activities.
Building Permit	Pikes Peak Regional Building Department	Following Site Plan Review, local regulations require review and approval of building plans and design. This includes electrical designs and other final drawings for the Project.
Temporary Access Permit	El Paso County	There is existing gate access from Birdsall onto the Woodmoor Water and Sanitation District no. 1 property. The access point onto the site may be a few hundred feet (east or west). Depending on final design, a Commercial Driveway Temporary Access Permit may likely be required.
Right of Way Permit	El Paso County	Work needed for the Access Permit requires a concurrent Work in Right of Way Permit
Haul Permits	El Paso County	Haul permits will be obtained from CDOT for loads that exceed specified size and/or weight requirements.
Haul Route	City of Fountain	Obtain general approval of haul route plans through City of Fountain

(c) Copies of relevant official federal and state consultation correspondence prepared for the Project; a description of all mitigation required by federal, state, and local authorities; and copies of any draft or final environmental assessments or impact statements required for the Project.

Several studies were conducted on the Project area, specifically, the **Appendix F- Biological Resources Report** dated November 2, 2020 and the **Appendix G- Phase I Environmental Site Assessment** dated October 21, 2020. Additionally, the **Appendix H- Non-Wetland Water Features and Wetlands Report** dated October 2, 2020 was rendered and submitted to state and federal agencies for review.

Colorado Ecological Services of the US Fish and Wildlife Service (USFWS) received our letter on November 10, 2020 and submitted their correspondence on December 7, 2020 expressing no concerns about the Project’s impacts to species (**Appendix I- USFWS Correspondence**).

Additionally, the Applicant submitted a letter to the Colorado Parks and Wildlife (CPW) department on November 10, 2020. CPW responded on February 1, 2021 with general concurrence to all the biological report recommendations for wildlife and associated habitats. The Applicant has agreed to abide by the recommendations made by CPW. **Appendix J- CPW Correspondence** contains communications and recommendations for mitigation of wildlife impacts.

On October 2, 2020, correspondence was sent to the US Army Corps of Engineers (USACE) regarding Jurisdictional Approval for the wetland report (**see Appendix K- USACE Correspondence**). The final response was that no jurisdictional wetlands or waters were found. No further action is required.

Correspondence with the Federal Aviation Administration (FAA) dated October 13, 2020 is attached as **Appendix L- FAA Correspondence**, confirming a “No Hazard Determination” for the Project.

Communications with the Office of Archeology and Historic Preservation (OAHP) are attached as **Appendix M- OAHP Correspondence**. On December 21, 2020, the Applicant supplied the Office of Archaeology and Historic Preservation with the Class I Cultural Resources Report dated October 2, 2020 for review. That office responded stating that no additional response would be required because the locations were specifically identified in the supplied report.

In preparing additional plans for this submittal, the Applicant has been in communications with Hanover Fire Protection District (**see Appendix N- Hanover Correspondence**). The Applicant has formally requested that the Fire District service the Project for any Emergency Medical Services (EMS) or fire emergency needs. The correspondence also details the emergency response plans currently being developed along with requesting the Fire District's feedback in creating a mutually agreeable plan.

As an additional precaution, the Applicant has also submitted correspondence to the Pikes Peak Regional Building Department (PPRBD) with information regarding the design plan (**see Appendix O- PPRBD Correspondence**). This plan evidences the Project's four planned road crossings that will traverse a 100-year floodplain. In the email dated January 20, 2021, Keith Curtis verifies that no issues exist with the Project plan, associated crossings, and floodplains. Therefore, the Applicant will be working to submit the permit applications for the Project's projected crossings according to the building department code.

The Project has no major federal nexus requiring action or additional communication under the National Environmental Policy Act (NEPA) or other relevant federal law.

(7) Land-Use

(a) Project Map Detailing Current Land Use and Zoning, including adjacent lands

The Project area is currently divided into three zoning areas, including: Agriculture-5 (A-5), Agriculture-35 (A-35), and Residential Rural-5 (R-5). Please see **Appendix P- Zoning Map** for details.

The majority of the lands adjacent to the Project area have similar zoning categories; however, a small area south of the Project is categorized as Industrial-3 (I-3) zoning. Other adjacent lands are Incorporated City lands.

Appendix P also includes the land use of the project site and directly adjacent lands as well as a map of the public lands depicted surrounding the site.

(b) Affected Public Land Boundaries and Impacts

There are no federally owned lands in the Project vicinity. State lands have been identified; however, they are not considered "public lands" because they have specific beneficiaries outside of the general public. These are depicted on map within the **Appendix P- Zoning Map**. The Zoning Map identifies the boundaries of Un-Incorporated City lands, another map showing the land use and a third map identifying the public lands as a reference point. Additionally, there are lands owned by the City of Fountain for the landfill and lands owned by the State that have been earmarked for the Kane Ranch Open Space Parks.

(c) Conformity with El Paso County Master Plan

Parks, Trails and Open Space Master Plan (2013)

Pursuant to the 2013 El Paso County Parks, Trails and Open Space Master Plan, the proposed Kane Ranch Regional Trail intersects the Project area. The Project cannot meet the Parks, Trails and Open Space Master Plan, an element of the Your El Paso County Master Plan, as the Project does not depict or ensure for the regional trail alignment due to safety concerns and future land use planning goals that CSU has for the property. It is the Applicant's understanding, in working together with El Paso County Parks Department, CSU, and El Paso County PCD, that CSU, in future planning efforts for the remainder of the subject property, will work in good faith with El Paso County Parks Department to determine whether CSU can safely and reasonably accommodate a regional trail corridor on the subject property. Additionally, the El Paso County Parks Department intends to adopt a new Parks, Trails and Open Space Master Plan in 2022, which will reflect modifications to the Kane Ranch Regional Trail plan resulting from the coordination with CSU during the Pike Solar WSEO and 1041 process.

With the future Kane Ranch Open Space identified by the Parks and Trails Department adjacent to the northeast of the Project site, a Visual Simulation (Appendix AC) has been submitted demonstrating that the project will not result in significant visual impacts to the local community or neighboring public recreational spaces. Finally, the Project site will be located outside of any proposed development plans of the City of Fountain Parks Department and the City of Colorado Springs Parks Department.

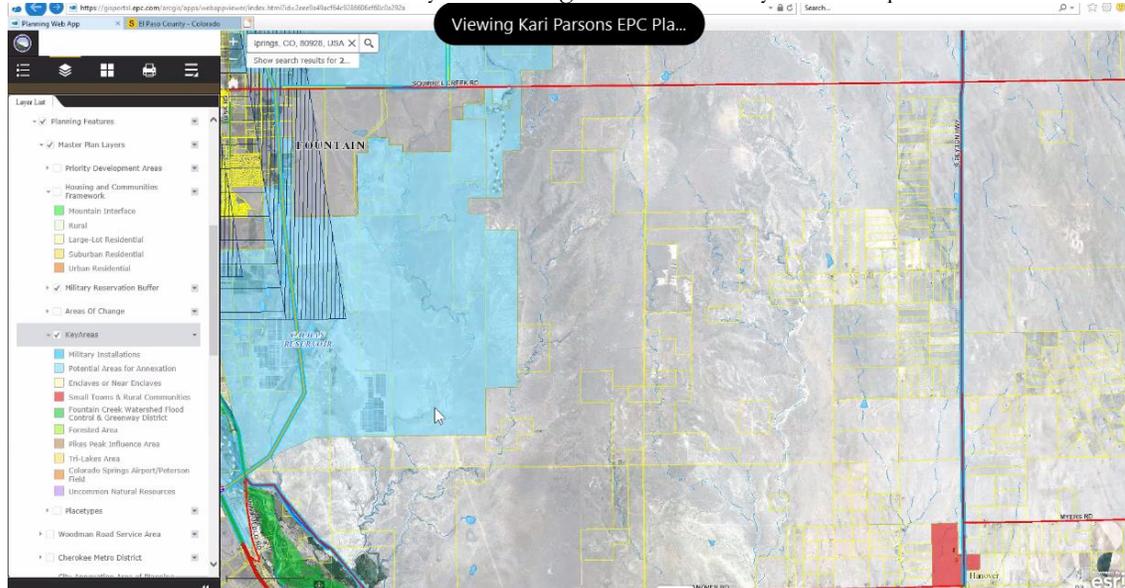
Notwithstanding the foregoing inconsistency with the Parks, Trails and Open Space Master Plan, the Project is in general conformance with the Your El Paso Master Plan (referred to herein as “Master Plan”) and other adopted Plan elements. Specifically:

Master Plan Implementation: Guidance for Evaluating Land Use Applications

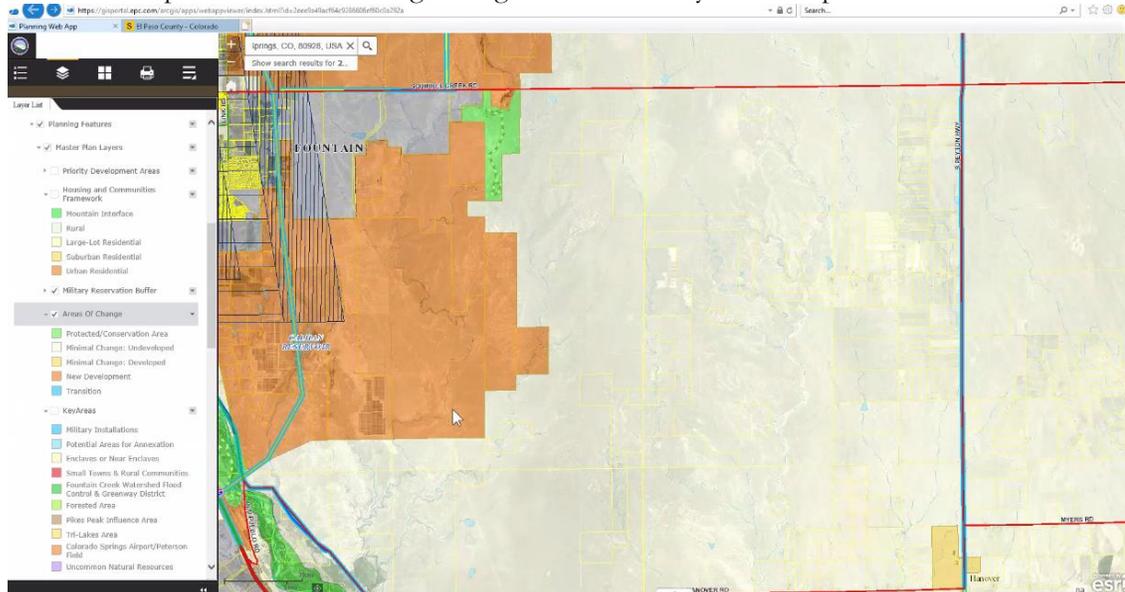
- *Is the proposed use located within a Key Area? If so, how will the proposed use affect the unique identity or character of the Key Area?*

The project is within the Key Area “Potential Areas for Annexation”. This area has been identified as a potential area for annexation into the City of Fountain. Being that the project location is outside of the urban and residential developed area of Fountain, and adjacent to the Fountain Landfill and existing utility infrastructure, the proposed Project has been well sited to complement existing surrounding uses, and in turn, would strengthen the existing unique identity or character of the Key Area. The nature of the Project being a solar energy facility, producing minimal to no odor, sound, light, or other nuisance to surrounding properties, make it an appropriate use alongside the existing public utility and waste management services. Should this area indeed be annexed and developed, it is likely that this portion of the Key Area would naturally be focused and maintained for siting large and public infrastructure land uses.

“Potential Areas for Annexation” Key Area Designation on County’s GIS Map:



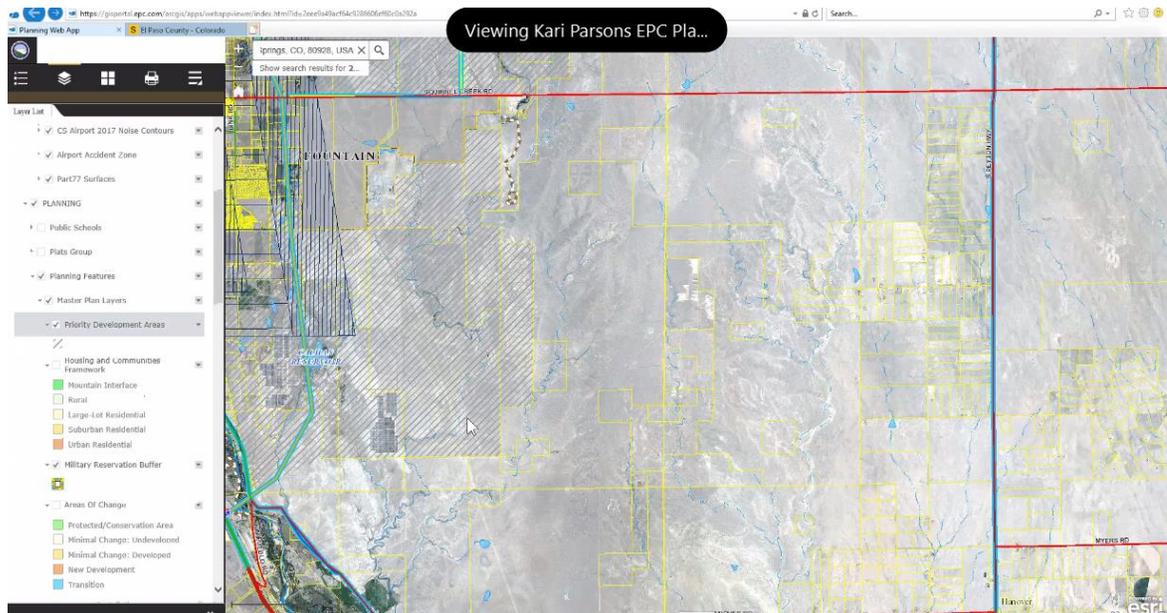
“New Development” Area of Change Designation on County’s GIS Map:



- *Is the use located within a Housing Priority Development Area? If so, is the proposed use one of the identified housing types for the area?*

The Project is located within the Fountain Area Housing Priority Development Area identified within the Master Plan. As shown and discussed on Page 53 of the Master Plan, the city of Fountain has the potential to expand south and east, and as such the Project’s location should be considered for suburban residential development in order to match the development pattern of the City. While the Project’s use is not the identified suburban residential use or housing type, the Project is a necessary component to accommodating the anticipated population growth by providing a needed public utility. Further, the Project area is already characterized by the adjacent Fountain landfill and utility infrastructure, resulting in the Project’s use being consistent with the adjacent uses and furthering several of the Master Plan’s recommendations to collocate certain types of uses as a means to conserve open space and preserve community character in other areas served by these types of projects.

“Fountain Area” Housing Priority Development Area Designation on County’s GIS Map:



- *Is the use located within a Commercial Priority Development Area? If so, is the proposed use one of the identified commercial uses for the area?*

The Project is not located within any Commercial Priority Development Area identified within the Master Plan.

- *Is there existing infrastructure to which the proposed development can connect? If so, is connection proposed and how will it be accomplished? If not, is there a plan for future extension of infrastructure to the property?*

The Project is sited adjacent to, and designed to utilize, existing infrastructure to which it can connect, consistent with Master Plan Objective HC2-1 and its Guidance for Evaluating Land Use Applications. The Project site, designed in a safe and efficient manner, will be located on Utilities-owned property next to the Williams Creek Substation and other existing solar facilities. The Project design will reduce overall impacts and create efficiencies in the design by limiting the overhead transmission line to a short distance of approximately 1,300' from the Project substation to the Williams Creek Substation. In order to construct the Project, temporary power will be required and negotiated with MVEA from an existing power line nearest to the Project substation location in order to limit construction impacts. Additionally, as noted in the Master Plan on Alternative Energy, “energy generation should be considered and appropriately sited in the county as opportunities arise”. The Pike Solar Project will bring an additional 175 megawatts (MW) of solar energy onto the Colorado Springs Utilities (CSU) electrical grid. The Pike Solar Project is poised to satisfy CSU Utilities customers’ increasing demand for energy, paired with the state’s renewable energy generation goals.

- *Does the development trigger the need for pedestrian or multimodal connections and are such connections being proposed?*

The Project’s development does not trigger the need for pedestrian or multimodal connections, as the Project will be an unmanned facility during operation (except for maintenance needs), will not generate a residential density increase, and will not otherwise attract or draw people to the area. For these reasons, the development does not trigger the need for pedestrian or multimodal connections.

- *Does the proposed use/development incorporate appropriate conservation design principles as identified in the Master Plan?*

Conservation design principles uses development patterns that aim to preserve contiguous areas of open space and protect environmental features and areas by grouping development together. While this reference was made within the Master Plan to discuss residential clustered development, this approach and aimed objective are relevant to the Project. The Project groups development together by siting the utility infrastructure together with existing utility and public infrastructure development. The Project has been sited and designed to meet the growing population's energy needs while collocating and concentrating the public infrastructure uses together with its adjacency to the Fountain Landfill and other CSU-owned infrastructure.

- *Will the proposed use/development further the County's objective of meeting the Vision, Principles, Goals, and Objectives of the Master Plan?*

The Project will promote and contribute to meeting the County's objective of meeting the Vision, Principles, Goals, and Objectives of the Master Plan. The Master Plan's Vision is centered on meeting projected growth in a strategic and sustainable way. The Project contributes to the County meetings its vision by providing the City and County's residents with needed power through a clean, renewable energy source (during a time of additional energy demand with the decommissioning of the City's coal power plant) and doing so through a development which is collocated and clustered with existing electrical utility infrastructure. Additionally, the Project works to broadly meet the Community Facilities and Infrastructure category of Goals & Principles outlined within the Master Plan. Specifically, the Project furthers Goal 5.1, which calls on coordination with agencies to provide high-quality community facilities, services, and infrastructure to enhance quality of life, and Goal 5.3, which calls to ensure adequate provision of utilities to manage growth and development.

Additionally, the Master Plan's Alternative Energy section identifies renewable energy as an opportunity within the County that should be considered as opportunities arise (Pg. 108 of the Master Plan). The Pike Solar Project is specifically called out within this portion of the Master Plan, noting that the Project's battery is the largest energy storage facility announced in Colorado and will provide CSU with valuable information about improving solar power integration into the system.

- *Does the proposed use/development support the Implementation Objectives and Specific Strategies of the Master Plan?*
The Project supports the Implementation Objectives and Specific Strategies of the Master Plan. Below is an example of an Implementation Objective and Specific Strategy supported by the Project:

Goal E2:

Promote sustainable best practices with regard to development and infrastructure.

The Project supports this Goal by proposing a sustainable, clean energy generation facility use through the efficient siting and development approach of collocating and concentrating the use in an area that is already developed for utility or other public facilities such as the Fountains Landfill.

Objective E2-3: Promote alternative products and services that substitute for environmentally damaging ones.

The Project supports this objective by promoting clean, renewable energy as an alternative power source that substitutes, and has the potential to dis/replace, traditional fossil fuel energy sources. The transition toward clean, renewable energy is of utmost importance in combating climate change and relieving local communities' populations from the health and environmental impacts of traditional power plants (like the Martin Drake Power Plant).

Specific Strategy: *Conservation design should be considered and evaluated alongside development considerations such as land use, zoning, traffic, infrastructure, and utilities as part of any development review and approval process in the County.*

The Project supports this Specific Strategy as part of the implementation of Objective E2-3 and Goal 2 with its alignment with conservation design principles. To reiterate the above response regarding the Project's use of conservation design principles, conservation design principles use development patterns that aim to preserve contiguous areas of open space and protect environmental features and areas by grouping development together. The Project has been sited and designed to meet the growing population's energy needs while collocating and concentrating the public infrastructure uses together with its adjacency to the Fountain Landfill and other CSU-owned infrastructure.

Master Plan Implementation: Guidance for Evaluating Land Use Applications, Additional Factors to Be Considered

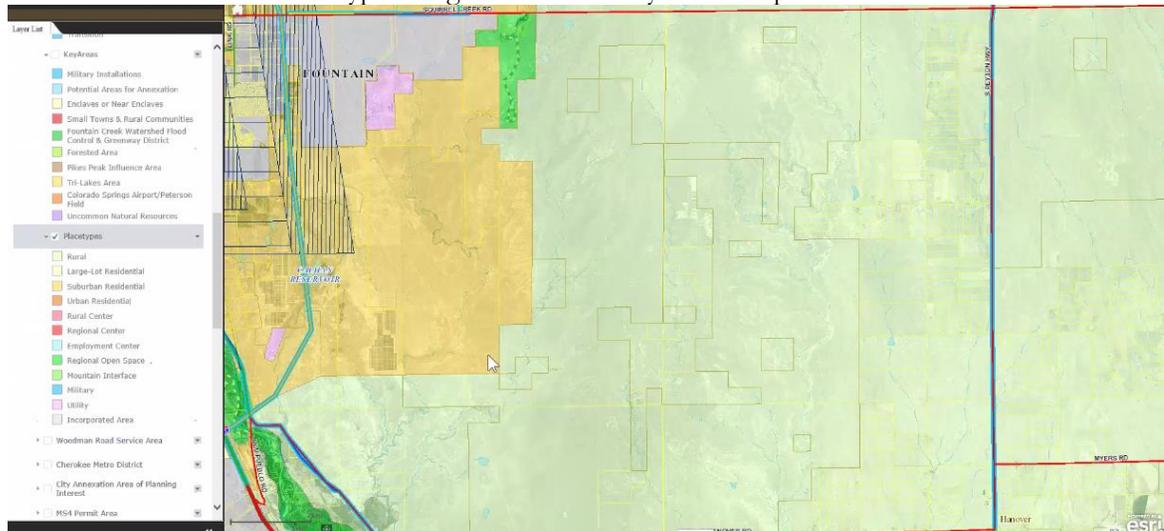
- *Larger Land Area – There are several individual large parcels as well as situations in which multiple smaller adjacent parcels are all owned by a single landowner. These parcel configuration and ownership situations create desirable opportunities for siting larger land uses, some of which may trigger the requirement for approval of a variance of use request. Multiple parcels under the same ownership, for example, could be consolidated to support and mitigate the impacts typically associated with large-scale land uses, such as energy generation facilities, landfills, mineral extraction operations, or concrete batch plants*

The Project is consistent with this factor. The two parcels comprising the Project area are large in scale and under the same ownership, making the site ideally suited for energy generation, a large land use, and in turn allowing for the mitigation of impacts (such as visual impacts and neighborhood character) typically associated with large-scale land uses such as energy generation facilities. Further, the Project's location adjacent to the Fountain Landfill, the Palmer Solar facility, and various CSU infrastructure, together make these parcels a suitable location for the Pike Solar project.

- *Well-Integrated within Established Placetype – When land use requests propose a use that is different than what a respective Placetype typically anticipates, the siting, scale, intensity, setbacks, and aesthetic nature should be evaluated to determine if the use can be appropriately integrated into the surrounding area. Where the proposed use is a desired use but exhibits some degree of use-to-use incompatibility, enhanced methods of buffering and screening should be considered and implemented, as appropriate, at a scale that ensures reasonable mitigation of anticipated negative impacts.*

The Project is located within the Suburban Residential Placetype. As noted above, the Project is ideally situated adjacent to existing large-scale utility and public infrastructure uses. Both of these existing adjacent land uses are also located within the Suburban Residential Placetype. As such, while the project's use is different than what this Placetype typically anticipates, the proposed use is consistent in nature and scale with the existing land uses of the immediately surrounding area. As such, the Project is sited and proposed in an ideal location, where concerns of use compatibility and negative impacts due to same are avoided by virtue of the existing character and surrounding uses.

“Suburban Residential” Placetype Designation on County’s GIS Map:



Master Plan Objective HC2-1: development should be prioritized to efficiently utilize and extend existing infrastructure...

As noted above, the Project is sited and designed to efficiently utilize and extend existing infrastructure. There is existing electrical utility infrastructure surrounding the Project area, including the recently permitted and developed Palmer Solar project. The Pike Solar project will build upon and effectively expand existing utility infrastructure, which in turn also meets and promotes sustainable development and growth concepts by concentrating and clustering utility-focused development in a single area, thereby alleviating pressures on other areas in the County for similar utility development.

Infrastructure, Alternative Energy - Page 108

The Master Plan specifically announces the Pike Solar Project within the Alternative Energy Subsection of the Infrastructure Section (Pg. 108). The Master Plan identifies solar energy as sustainable, renewable, and especially plentiful in El Paso County. The Pike Solar project is poised to deliver clean power to thousands of County residents, and directly contribute to CSU in better serving its customers through new, cleaner technologies.

Master Plan Objective HC2-6: carefully analyze each development proposal for their location compatibility with the natural environment, and cohesion with the existing character.

The Project plans have been intentionally designed to reduce/mitigate the environmental impact to the wetlands, wildlife, and cultural resources of the Project area and surrounding lands. The Applicant will make environmental quality a priority by reducing impacts to most of the water features by specifically engineering/designing crossings through wetlands. The Project design will specifically avoid cultural locations and the wildlife plans will minimize impacts to wildlife and associated habitats. The Project requested and received a Jurisdictional Determination from the US Army Corp. of Engineers and it was determined that there are no Waters of the US within the boundaries of the Project.

The attached **Appendix P- Zoning Map** shows the current zoning throughout the Project area, which currently has three different zone types including Rural Residential- 5 (RR-5), Agricultural-5 (A-5), and Agricultural-35 (A-35). Much of this zoned land is owned by the State of Colorado, Unincorporated El Paso County, and the City of Fountain Sanitation Department. The Project site is also bounded by a small portion zoned as Industrial- 3 (I-3). The Project site is not intended to interfere with existing

neighborhoods and is intentionally designed further away from residential homes in effort to minimize impacts on the community's residential areas.

The Project site was selected for its proximity to the point of interconnection at Utilities' Williams Creek Substation and because the land is owned by the City of Colorado Springs on behalf of its enterprise Colorado Springs Utilities. Also, the Project has few direct neighbors other than the Palmer Solar Project and an extensive network of transmission facilities and lines.

Water Master Plan (2019)

The Project is consistent with the County's adopted Water Master Plan (WMP) and, in alignment with community feedback received, the Applicant will work to minimize impacts of water usage to the Project. Overall, the proposed Project will be a low water-use development. During the project construction phase, an estimated 4,475,000 gallons of water will be required for the Applicant's dust mitigation efforts. The Applicant is working with CSU to utilize onsite water via the Williams Creek Pump Station, located in Region 7 (see Appendix Z- Water Service Letter). The Project is sited within both Regions 6 and 7 under the WMP. A tower will be placed for trucks to fill up water, which will be connected to an above ground pipe/fire hose, which will run from it to the hydrant on other side of the fence outside of the Williams Creek Pump Station where a meter/valve for connection will be installed. The contractor will track daily water usage and submitted monthly reports. Water will only be required during the construction phase to mitigate dust and maintain air quality. After the Project becomes operational, water needs are not anticipated. During construction, personnel will use portable sanitary units and carry in drinking water for personal use. The Project will not have an adverse effect on water and sewer demands. Sanitary and other wastewater will not be released into Waters of the U.S.

The Project, once operational, will have negligible impacts on water quantity or quality. In the US and Europe, more than half of the water drawn from nature is used for power generation. Traditional fossil fuel power plant facilities require considerable water consumption for operation and maintenance, such as to clean and process the fuel and to cool the power plants via constant water circulation. Additionally, hydroelectric power plants evaporate an average of 18 gallons of fresh water per kWh used by the consumer. Water consumption required for the Pike Solar project pales in comparison; the Project will require minimal, if any, water once in operation. The estimated 4,475,000 gallons of water required during the Project's construction phase is for dust mitigation efforts and will only be temporary demand. Considering the foregoing, the minimal water usage required for the Pike Solar Project meets the goals and policies identified in the Water Master Plan.

55% of El Paso County's water sources of supply is imported renewable water, much of which (35%) is provided by CSU. The Pike Solar Project will receive water from CSU's Williams Creek Pump Station during the construction phase. As noted in the WMP, CSU has taken innovative steps to assure renewable water deliveries to their customers. As such, the Project, by way and virtue of CSU standard practice, directly meets and aligns with WMP Policy 4.2.2 to encourage renewable water supplies and reduce the dependency on non-renewable water supplies, as well as Goal 5.4 to promote the long-term use of renewable water.

The Project's close proximity to the existing Williams Creek Pump Station, owned and operated by CSU, will allow for the Applicant to utilize existing infrastructure to receive the water necessary during the Project's construction phase. This aligns with Policy 5.2.4 to encourage the locating of new development where it can take advantage of existing or proposed water supply projects that would allow shared infrastructure costs.

Water usage related to, or resulting from, the Project will not be needed at full buildout (year 2060). As such, the Project will not contribute to, or impact, the current estimated build-out (2060) demand as described in the Water Master Plan. Rather, the extremely low-water use nature of solar power facilities effectively reduces and absorbs the projected regional demand for water at full build-out, as solar projects such as Pike Solar contribute to the decommissioning and replacement of traditional power plants which are comparatively high-water consumers.

2040 Major Transportation Corridor Plan (2016) (MTCP)

It is a top priority of the Applicant to develop a mutually agreed upon transportation plan by working with the County, City of Fountain, CDOT, Fire Department, and interested parties in the community. The Applicant would like to follow the El Paso County 2040 Major Transportation Corridor Plan as well as the City of Fountain Traffic Routes. In following these guidelines and working with the interested parties, the Applicant has also agreed to conduct road condition surveys pre- and post-construction activities and to pay its proportional share for Pike Solar construction travel impacts to the two haul routes to keep the roads used by the Applicant well-maintained. Details surrounding these studies can be found in **Appendix AK- Road Conditions Survey Work Plan** which describes an approach and outlines methodologies to evaluation conditions of the paved roadways for the proposed construction travel routes as well as efficiently count representative samples of vehicles and vehicle classes along the two travel routes to understand local heavy traffic and project traffic. Finally, this work plan provides a means to assess the degradation of the routes over the course of construction and the proportion of degradation that is attributable to the construction of Pike Solar.

Proposed Access Locations

The Applicant has been working with the County, Colorado Department of Transportation (“CDOT”), and the City of Fountain on creating cohesive Traffic and Haul routes. The proposed construction travel plan was presented in the Early Assistance Meeting on October 21, 2020. Following this meeting, the Applicant has worked with the County, City of Fountain, CDOT, and the Hanover Fire Protection District in several follow-up discussions about traffic plans. The two access points are depicted on **Appendix AI- Haul Route Map**. This map identifies the two main routes for the planned construction traffic. Old Pueblo Road is depicted as a rural collector on the on the MTCP 2040 Roadway Plan (Classifications and Lanes). The analysis and recommendation made within **Appendix AJ - Traffic Memo** do not identify improvements to this road as being necessary for this development. The Traffic Memo also notes that the Project will not impact any of the roads that are highlighted in the 2060 Corridor Preservation Plan.

The first, being called the Green Route, designed for daily personnel traffic, is designed for traffic to travel from I-25 through the City of Fountain designated truck routes to Squirrel Creek Road, and entering the project site from the North near the landfill. The second route, being called the Orange Route, designed for hauling the majority of the project equipment including modules and racking, is designed for traffic to travel from I-25 to Old Pueblo Road, east on Birdsall Road, and entering the project site from the West of the project onto a temporary road access route. Details regarding the roads and haul plans and estimated traffic are outlined within **Appendix AJ- Traffic Memo** attached.

In following further county guidelines and working with the interested parties, the Applicant has also agreed to conduct road condition surveys pre and post-construction activities and to pay its proportional share for Pike Solar construction travel impacts to the two haul routes to keep the roads used by the Applicant well-maintained. Details surrounding these studies can be found in **Appendix AK- Road Conditions Survey**

Work Plan which describes an approach and outlines methodologies to evaluation conditions of the paved roadways for the proposed construction travel routes as well as efficiently count representative samples of vehicles and vehicle classes along the two travel routes to understand local heavy traffic and project traffic. Finally, this work plan provides a means to assess the degradation of the routes over the course of construction and the proportion of degradation that is attributable to the construction of Pike Solar.

The Applicant intends to enter into a Development Impact Mitigation Agreement with the County during the WSE-O process which addresses the impact on roads resulting from development of the Project.

Master Plan For Mineral Extraction

El Paso County developed a Master Plan for Mineral Extraction dated in 1996. The purpose of the plan was to develop guidance for commercial mineral and natural resource extraction operations to minimize impacts to the community while enabling efficient removal of such minerals and natural resources. Because the proposed Project will not involve any mineral extraction, this master plan is not applicable to the Project.

(d) Conformity to applicable regional and state planning policies

The Project was developed from several state and regional policies to increase renewable energy into the portfolio of the community. This project was also influenced by goals of the Utilities and community members.

The State has several planning policies, goals, and incentives in place to grow the renewable energy use within the state including Colorado Renewable Energy Credits (REC's), Colorado Renewable Portfolio Standards (RPS) and following national RPS guidelines. The Project conforms to Colorado's Renewable Energy Standards statute Section 40-2-124, C.R.S). In addition, Governor Polis released the "Greenhouse Gas Pollution Reduction Roadmap" on January 14, 2021. This roadmap outlines the goal of achieving 100% renewable energy by 2040. This roadmap builds on commitments that Colorado Springs Utilities and others have already made.

There are regional guidelines in place as well through the Pikes Peak Area of Council Governments (PPACG) Regional Sustainability Project called "Looking to Our Future- Pikes Peak Region 2030" Pike's Peak vision 2030. The Energy Strategy Table within this report outlines a strategy to encourage utility-scale renewable projects within the region.

The Utilities driving force is a program called, 2020 Energy Vision approved through the Electric Integrated Resource Plan (EIRP).

Through the planning process of the Project, the guidelines for the application also extend to various regional and state planning policies that consider factors such as water, local application processes, engineering requirements, and mitigation efforts. These include the El Paso County Master Water Plan built from the Colorado Water Plan, Pikes Peak Area Council of Governments Water Quality Plan, the Plan for Mineral Extraction, Parks Master Plan, the 2040 Major Transportation Corridor Plan (MTCP), the Colorado Noxious Weed Act, El Paso County Noxious Weed Management Plan, El Paso County Land Development Code, El Paso County Engineering Criteria Manual, El Paso County Drainage Criteria Manual, Volume 2 and the El Paso Community Wildfire Protection Plans.

The Applicant has consulted with local, state and federal regulatory bodies providing guidance on various components of the application.

(e) Conformity to federal land management policies

Federal land management plans or policies do not apply to this Project. The Project will be developed on land owned by the City of Colorado Springs on behalf of its enterprise Colorado Springs Utilities. The project will abide by regulations set forth by various federal agencies including US Army Corps. Of Engineers and will obtain input on the Project details during the review process.

(f) If relevant to Project Design, describe the agricultural productivity capability of land in the Project area, using Soils Conservation Service classification data.

The land is currently rural rangeland used for grazing. There is a portion of the land currently zoned as AA-5 and AA-35, however these lands do not provide the best characteristics for farmland.

(g) Describe probability that the Project may be significantly affected by earthquakes, floods, fires, snow, slides, avalanches, rockslides, or landslides and any measures taken to reduce impacts

The design of the Project was specifically planned as an unmanned facility. It can be run remotely and offers sensors that communicate with the main office systems when monitoring technical integrity. The equipment is designed, and manufacturers certify the ability of the panels to endure major weather events including floods, snow, hail or high winds. During high wind events, the panels have the ability to move to angle specifically to protect the equipment.

The Project site is located in rural El Paso County where the terrain is primarily rangeland and the topography would not meet criteria for weather events such as avalanches, rockslides, landslides.

The project is located near a floodplain and in the event of a flood, the project would have self-shut offs. It is also unmanned so there is minimal risk of the project affecting personnel safety. Lastly, in the event the facility was unexpectedly removed from the grid, this would not affect the community's power source. The design of the Project has incorporated a Drainage Report (**Appendix S**) and efforts to reduce impact of flood events has been considered in the civil design.

The Applicant has developed a Fire Prevention and Protection Plan (**Appendix V**) that has been supplied to the Hanover Fire Department. The Project is about 2 miles from the Fire Department and the plan implements a strategy in how to handle in fire sourced from the Project or in the event of wildfires affecting the Project site. This plan will be finalized over the next few months and submitted in our Site Development Plan submittal. Pursuant to the Wildfire Susceptibility Index outlined in the El Paso County Community Wildfire Protection the Project site is located in a moderate to high wildland fire susceptibility zone. This has been taken into account throughout the planning process and response plans enclosed in this application.

The Geotechnical Engineering Report (**Appendix T**) states that the geologic hazards in the area are anticipated to be low. Seismic activity is anticipated to be low and structurally, the area is relatively stable. The site grading will also help reduce erosion issues. Corrective work may be performed to reduce loose soils.

(h) Specify if excess services capabilities created by the proposed Project will prove likely to generate sprawl or strip development

The power generated for the Project will be assisting the Utilities in retiring other fossil fuel generated power plants, including the Martin Drake Power Plant. There will be no excess service capabilities created from this Project. The Williams Creek Substation will actually require system upgrades in order to take the additional power generated from the Pike Solar Project. The upgrades needed will not impact the footprint of the Substation and will be conducted within the existing facility. The Project is not anticipated to lead to any kind of sprawl or strip development. The PV site is being built for Colorado Springs' Utilities and is a private project

to service the grid for CSU. There will be no employees officed on site, and it is anticipated to have little impact on local services to contribute to sprawl or strip development.

(i) Specify whether the demand for the Project is associated with development within or contiguous to existing service areas.

The Project is being developed based upon demand by the Colorado Springs Utilities to provide more renewable energy sources to its customers under the Sustainable Energy Plan, a part of the CSU Energy Vision. The Applicant responded to the RFP request (**Appendix AL**) made by the Utilities and was awarded the project to develop by 2023. This Project will also tie into the pre-existing Williams Creek Substation on land located within the Utilities' service territory. The Project is also located next to a sister site called the Palmer Solar Project. **Appendix AG- Colorado Springs Utilities Service Territories Map** is attached to illustrate the area that the Project will provide energy to.

(8) Surface and subsurface drainage analysis

Several reports have been rendered to develop a civil design that maintains the integrity of the project and takes into account proper drainage and grading to prevent erosion. The Drainage Report (**Appendix S**) provides recommendations for site drainage and any changes that may need to be implemented to accommodate for the site design and maintain the integrity of the surface flows. The Grading and Erosion Plan (**Appendix P**) is the Applicant's civil design to help properly grade the site location to prevent erosion. Lastly, the Geotechnical Engineering Report (**Appendix T**) states that grades will be adjusted to provide positive drainage away from the structures. Infiltration of water into the utility or foundation excavations must be prevented during construction.

The Applicant will also be obtaining a permit for stormwater discharge associated with the construction activities. This will be in compliance with the Colorado Water Quality Control Act. Part of this permit includes providing a Stormwater Management Plan and ESQCP. This will be submitted with the Site Development Plans.

Please find the Geotechnical Engineering Report (**Appendix T**), a Preliminary Drainage Report (**Appendix S**), and an initial Grading and Erosion Control Plan (**Appendix R**) to help in the design patterns for surface and subsurface drainage of the Project. Since measures are taken to address runoff and drainage, the facility will not result in alterations or negative impacts to the area's natural hydrography. The Project will require a SWMP and approval of Erosion and Stormwater Quality Control Permit from El Paso County at the time of construction.

(9) Financial feasibility of the project

(a) Relevant bond issue, loan and financing approvals or certifications

Initial development will be financed by juwi AG, the parent company of the Applicant. Going forward, the Applicant has secured a PPA and will work toward financing structures for long-term ownership of the project. The Applicant has worked a variety of financial structures for the construction and long-term financing of projects. Most recently, the Applicant has had success in working with unregulated subsidiaries of large utilities, such as Duke Energy Renewables, Dominion, PSEG Solar Source and other similar entities that are most efficient owners of utility-scale solar projects, having both tax exposure to utilize the benefits of the Investment Tax Credit (ITC) and large balance sheets with which to finance projects.

(b) Business plan that generally describes the financial feasibility of the Project

The Applicant can work their parent company to execute a variety of financial structures from a diverse set of capital providers for construction and long-term financing of the projects. Recently there has been success in financing projects in North America with unregulated subsidiaries of large investor-owned utilities. These entities have institutional experience in owning and operating power generation facilities, tax exposure to efficiently utilize the benefits of the Investment Tax Credit (“ITC”), and large balance sheets with which to finance projects. Financing the Pike Solar project in a similar manner would be “on balance sheet” and would not require debt. In February of 2021, juwi launched a financing process to secure the funding of the Pike Solar project, with a top tier investment bank acting as the parent company of the Applicant’s advisor.

(10) Local infrastructure and services impacts- and will include information describing existing capacity of and demand for local government services including but not limited to roads, schools, water and wastewater treatment, water supply, emergency services, transportation, infrastructure, and other services necessary to accommodate the Project.

Please find an impact analysis of existing capacity of and demand for local government services to accommodate the Project:

Roads: The Applicant has made roads and haul routes a priority in the planning process for this project. The goal being to minimize impact of the project on the existing roads. The Applicant has prepared a Road Conditions Survey Work Plan outlining a plan for surveying road conditions prior to and following construction. The Applicant has also agreed to pay a proportional amount for road maintenance attributable to the construction project. The plan in place for planned traffic and daily estimates of vehicles can be found in the Traffic Memo (**Appendix AJ**).

Schools: The Project would not affect any school systems within the area.

Wastewater/water treatment: No new water or wastewater facilities will be required for this Project. The Project will not include any such facilities during operation. During the construction phase of the project, portable sanitary units will be used, and water will be pumped from the Williams Creek Pump Station for dust mitigation purposes.

Water: Once operational, the Project will not require any water usage. During the construction phase of the Project water will be trucked in for specific needs including dust mitigation, soil compaction and necessary revegetation efforts.

Emergency services: The Applicant is working with the Hanover Fire Protection District to ensure that a Fire Prevention and Protection Plan (**Appendix V**) and Emergency Response Plan (**Appendix W**) is in place for the Project. The Applicant has enlisted feedback from the Fire Chief for the traffic haul route plans and emergency route plans to the site. The Hanover Fire Protection District has agreed to provide first response initiatives for Fire and EMS needs to the site location.

Transportation: The Applicant has included **Appendix AI- Haul Route Maps** and **Appendix AJ- Traffic Memo** to outline the main traffic and equipment haul routes proposed for the Project during the construction phase of the project. **Appendix AK- Road Conditions Survey Work Plan** also identifies strategies for conducting road assessments. Upon project completion, site visits will be limited to periodic operation and maintenance visits that will minimally impact to the transportation and road systems.

Infrastructure: Temporary power will be required during the construction phase of the project. The Applicant is working with MVEA to negotiate temporary power use as this energy source is nearest to the planned substation location and will cause lower impact to the Project site. No other additional impacts to public infrastructure from Project construction or operations have been identified.

Other: (none)

(11) Recreational Opportunities

Currently, there are no recreational opportunities available on, or planned through, the Project site. Pursuant to the 2013 El Paso County Parks, Trails and Open Space Master Plan, the proposed Kane Ranch Regional Trail intersects the Project area. The Project cannot meet the Parks, Trails and Open Space Master Plan, an element of the Your El Paso County Master Plan, as the Project does not depict or ensure for the regional trail alignment due to safety concerns and future land use planning goals that CSU has for the property. It is the Applicant's understanding, in working together with El Paso County Parks Department, CSU, and El Paso County PCD, that CSU, in future planning efforts for the remainder of the subject property, will work in good faith with El Paso County Parks Department to determine whether CSU can safely and reasonably accommodate a regional trail corridor on the subject property.

(12) Areas of Paleontological, Historic, or Archaeological Importance- Description of impacts and effect of the Project site on paleontological, historic and archaeological interest.

The Applicant enlisted a third party to conduct Class I Cultural Resource Desktop Review (**Appendix AA**), rendered the associated report on October 2, 2020. In this review, there were three locations identified that require more information before impacting the land associated with those locations. To preserve possible historic or archaeological findings, the Applicant has noted these locations, staked them in the field and advised the team to avoid these locations. The locations have been excluded from the project design to minimize impact of what may be in place. Two of the locations (5EP.4830 and 5EP.4832), are identified as Archeological Resource Types that "Need More Data" and one of the locations (5EP.4849), is an Archeological Resource Type that is categorized as "Officially Eligible".

Additionally, the Applicant submitted the associated findings and planned course of action to the Office of Archaeology and Historic Preservation (OAHP) On December 21, 2020. In a letter received via email on December 28, 2020, Mark Tobias from the OAHP office submitted a response and verified that Section 106 of the National Historic Preservation Act and the Colorado State Register Act (Colorado Revised Statute (CSR) 24-80.1) does not apply. The Project design will not interfere in any potential cultural resources on the property.

Lastly, we have completed analysis on wetlands and waters of the U.S. The final response was that no jurisdictional wetlands or waters were found. No further action is required. Correspondence associated with this request can be found in **Appendix K**.

(13) Nuisance- Descriptions of noise glare dust, fumes, vibration and odor levels anticipated by the Project.

When the project becomes operational, the site is an unmanned solar facility that has a negligible impact on any nuisance. There will be minimal dust or fumes resulting from periodic site visits from operations and maintenance personnel. The noise caused by a solar facility will be equivalent to an air conditioning unit and the glare from solar panels will be minimal. The site is not located near any homes or near the roads to affect the local community.

During the construction phase, the Applicant will work to minimize noise, dust, fumes and other nuisances caused by project development. The Applicant will abide by 6.2.7 guidelines for Operational Standards in the Land Development Code. Construction activities will be limited to the times between 7 a.m. and 7 p.m. Monday through Saturday and will not exceed the maximum dBA permitted in the code. On-site employees will be instructed to abide by the Ordinance Concerning Noise Level 02-1 and the guidance stipulated in the El Paso County LDC. The dust mitigation efforts will be performed by spraying water onsite during the construction to prevent dust emission in the air.

Correspondence with the Federal Aviation Administration (FAA) dated October 13, 2020 is attached as **Appendix L- FAA Correspondence**, confirming a “No Hazard Determination” for the Project. The Project will not interfere in any aviation activities in the area.

Additionally, **Appendix AB- Electromagnetic Interference Report (EMF)** was rendered, which illustrates that the Project will not adversely affect the community through radiation, emission levels, and electromagnetic interference with radio transmissions. There will be no significant impact caused by electromagnetic interference.

Lastly, an **Appendix AD- Lighting Plan** was also included in the associated WSEO application, which details when lighting will be used, both during the construction phase and operational phase, and the lighting’s potential impacts on neighboring properties. Lighting will be scarcely needed during the construction phase as the Project will be constructed during natural daylight hours. Once the Project is operational, lighting will be limited to motion lighting and limited to O&M facility lighting as well as interior located equipment.

(14) Air Quality- Description of the impacts and net effect that the Project would have on air quality during both construction and operation, and under both average and worst case conditions, considering particulate matter and aerosols, oxides, hydrocarbons, oxidants and other chemicals, temperature effects and atmospheric interactions.

The Project will not result in adverse impacts to air quality. This project will require an Air Pollutant Emissions Notice (APEN) prior to construction. The APEN form will include information regarding Fugitive Dust Control Plan for land development. The Applicant submitted an Air Pollutant Emissions Notice (APEN) in May 2021 to the Colorado Department of Public Health and Environment (CDPHE). The APEN construction permit was deemed administratively complete and approved. Please refer to the APEN approval notice included in the WSE-O submittal package. Air quality impacts associated with the project are primarily from dust generation throughout the construction process. Earth moving equipment, skid loaders, trucks and personnel vehicles will contribute to diesel and gasoline emissions. Measures will be taken to minimize impact through water usage in dust control efforts. Sediment control practices such as targeted grading will exist to help minimize fugitive dust (see also **Appendix R- Grading and Erosion Control (GEC) Plan**).

Details further describing the Applicant’s Air Quality Management Plan is included in this application (**Appendix Q**), describing efforts to adopt Best Management Practices, minimizing fugitive dust during the construction phase of the Project. Some of these efforts will include applying water on haul roads and equipment and excavation faces, restricting vehicle speeds to eleven miles per hour, and suspending activities during high-wind events. This plan outlines vehicle traffic times and timing of deliveries, and also provides additional details to the dust control measures planned.

(15) Visual Quality- Description of the impacts and net effect that the Project would have on visual quality, considering viewsheds, scenic vistas, unique landscapes and land formations within view of the Project area.

The Project site is located in a rural area and the nearest homes are over 1 ½ miles from the site. The site is located strategically next to the pre-existing Williams Creek Substation in order to connect the system more efficiently. The Palmer solar site already exists near the site as well as other electrical infrastructure, a gas pipeline, and a landfill.

We have included a Visual Simulation (**Appendix AC**) within the application to project how the project will look from various vantage points. The Project does not affect any scenic views toward the west. The arrays will be visible from Birdsall Road located at site 4 in the simulation which is southwest of the site.

The primary visual impact of the project will come from the ground-mounted solar arrays, which have a relatively low profile, conform to the existing terrain, and have minimal issues related to glare or reflection. The design of the project includes the construction of a single additional overhead line, adjacent for its entire length to existing or planned power infrastructure. There will be eight groups of arrays and each will be fenced separately for safety purposes and to reduce the visual impact of the facility. The fencing will be located directly around each group of arrays.

(16) Surface Water Quality

(a) Map or description of surface water relevant to the Project, including description of provisions of the applicable regional water quality management plan, and NPDES Phase II Permit and necessary El Paso County Erosion and Stormwater Quality Control Permit, Section 404 Federal Clean Water Act Permit that applies to the Project and assessment of whether the Project would comply with those provisions.

The proposed drainage patterns will match the existing drainage conditions and historic patterns. Overlot grading and specific areas within the Site will be required to facilitate construction of the solar arrays on adequate slopes. The overlot grading will follow the existing topography and will not alter the historic drainage patterns. Overall impervious area of the site will not increase except for the addition of gravel access roads and the concrete low water crossings throughout the Project. The details can be seen in the Drainage Report (**Appendix S**), Elevation Plans (**Appendix U**) that also indicate water patterns planned. The basis for these requirements and guidelines were found in the El Paso County Drainage Criteria Manual. In acting in further compliance, the State of Colorado EPA National Pollutant Discharge Elimination System (NPDES) Program requires the Applicant to obtain a Construction Stormwater General Permit supply a corresponding Stormwater Management Program Plan (SWMPP). This will help illustrate the ways that the Applicant will be controlling erosion and sediment releases within the Project site. The Applicant will also be requesting a Grading and Erosion Permit (ESQCP) with the corresponding Grading, and Erosion Control Plan (GEC Plan) with El Paso County prior to construction. The plan and associated application will outline possible pollutants, permanent stormwater control measures and mitigation efforts, Best Management Practices and methods for minimizing and eliminating impact to the waters. This submittal will follow the guidelines of the El Paso County Engineering Criteria Manual and the Drainage Criteria Manual, Volume 2.

Additional information regarding surface water is found within the Non-Wetland Water Features and Wetlands Report dated October 2, 2020 (**Appendix H**). The Applicant used this data to identify potential wetlands features and submit the information to the USACE for Jurisdictional Determination. Communication on this can be found in **Appendix K**.

Additionally, there is a location on the property that the Applicant has specifically designed around to allow CSU to potentially create a reservoir expansion area in the future. The reservoir is not part of the Applicant's project but simply a feature that is intentionally preserved to maintain surface water quality. This is located within a 100-year floodplain location and is avoided in order to allow for future surface water development within the boundaries of the Project site. These features can all be identified in the **Appendix D- 1041 Map Plan**.

The Project has worked to abide by the local guidelines for water. The Applicant has reviewed recommendations outlined in the El Paso County Water Master Plan. The Applicant also referred to the Pikes Peak Area Council of Governments Water Quality Plan. The Water Quality Plan was required under federal and state statutes to recommend future policies and technical strategies associated with the watersheds within the area. The Project site is located within the Fountain Creek Watershed.

(b) Existing data monitoring sources

There are no known existing data monitoring sources on site for surface water quality.

(c) Description of the immediate and long-term impact and net effects that the Project would have on the quantity and quality of surface water under both average and worst-case scenarios.

During the construction phase of the Project, there will be short-term impacts. Details for this site preparation and recommendations can be found in **Appendix T- Geotechnical Engineering Report**. To prepare the site, existing vegetation and unsuitable fill will be removed. The site will be preliminarily graded. All exposed areas will receive an engineered fill. The excavations will be sloped or shored. All grades will be adjusted for positive drainage way from structures during construction and will be maintained throughout the life of the Project. Landscaped irrigation adjacent to the foundation systems will be minimized or eliminated. Water will not be permitted to infiltrate the fill or subgrade to prevent soil movements, therefore grading will be designed to prevent this.

The final response was that no jurisdictional wetlands or waters were found. The regional district office and headquarters determination is included in the correspondence. No further action is required. No long-term impacts are anticipated in association with these waters.

Long-term impacts to water quality will be mitigated through the Best Management Practices and mitigation efforts shown in the SWMPP and GESQCP plan that will be submitted prior to construction. Plans and engineering designs will follow county guidelines to ensure minimal long-term impacts. The Drainage Report (**Appendix S**) will address all on-site and off-site impacts from the project.

(17) Groundwater Quality

(a) Map and/or Description of groundwater, including any and all aquifers relevant to the Project. At a minimum the description should include:

- i) **Seasonal water levels in each portion of the aquifer affected by the Project**
Testing for groundwater was conducted through the **Geotechnical Engineering Report (Appendix T)**. Although groundwater levels can be expected to fluctuate

with varying seasons and weather conditions, groundwater findings were minimal in the boring and test pit logs. There were 60 exploratory borings and 24 test pits conducted on the Project site. There was groundwater found in only one test pit at about 7 feet below existing site grade while excavating.

ii) Artesian pressure in said aquifers

The Project is not anticipated to effect groundwater, therefore artesian pressure was not tested.

iii) Groundwater flow directions and levels

The Project will not impact groundwater and therefore levels/directions were not assessed.

iv) Existing aquifer recharge rates and methodology used to calculate recharge to the aquifer from any recharge sources.

The Project is not anticipated to effect groundwater, therefore aquifer recharge rates were not tested.

v) For aquifers to be used as part of a water storage system, methodology and results of tests used to determine the ability of the aquifer to impound groundwater and aquifer storage capacity.

Aquifers will not be used for water storage for this Project.

vi) Seepage losses expected at any subsurface dam and at stream-aquifer interfaces and methodology used to calculate seepage losses in the affected streams, including description and location of measuring devices.

The Project is located above-ground and not expected to create seepage loss.

vii) Existing groundwater quality and classification.

Groundwater was not monitored on the site. This is an above-surface development that will not have any measurable effect on groundwater.

viii) Location of all water wells potentially affected by the Project and their uses.

A Phase I Environmental Site Assessment (**Appendix G**) dated October 21, 2020 was rendered and shows all wells located within the Property boundary. Most wells were either Plugged and Abandoned or the permit had expired. In the report, there are three water wells located on the property that were identified near the project designs. Map ID 10 is permit 23360-A. This is an active water well near the stock tank. Map ID 14 and Map ID 15 were constructed under Monitoring Hole Notice MH-55731 and MH-55733, respectively. They are known by the Utilities as MW-14 and MW-13. They are both permitted as a monitoring well and/or water quality sampling. The Project design does not impact these existing wells and has been specifically designed around them to ensure that no adverse effects to the groundwater.

(b) Impacts and net effect of the Project on groundwater quality

The Project will have little effect on groundwater quality. The Project will not use groundwater nor any wells on the property. The construction of the project is designed to have minimal to no effect on groundwater.

(18) Water Quantity

(a) Map or description of existing stream flows and reservoir levels.

The Utilities has designated a reservoir expansion area on the Project site. This area is specifically omitted from the Project design and the Applicant will be working around this area to allow preserve this for future use. The reservoir expansion area can be seen in **Appendix D- 1041 Map Plan**. This is a planned area that the Applicant has accounted for and included a buffer zone in the event CSU works to expand.

(b) Map or description of existing minimum Stream flows held by Colorado Water Conservation Board

Based on a review of the Colorado Water Conservation Board website, the Project is in the Washed Plan Fountain HUC8=11020003.

(c) Impacts and net effect on water quantity

The Project will not have effects on water quantity. Water will only be used as necessary for dust mitigation purposes, soil compaction and revegetation needs. The Applicant estimates 4,475,000 gallons of water to be used during construction. Water will not be needed after completion of the Project. A Permanent water supply or any demand for water use will not be required when the Project becomes operational.

(d) Methods for efficient water utilization

Water will be obtained from the Williams Creek Pump Station located onsite and utilized only for construction needs such as dust mitigation during the construction phase of the Project. The Project requires minimal amounts of water and thus is an efficient project for water conservation.

(19) Floodplains, Wetlands, and Riparian Areas; Wildlife and Wildlife Habitat

(a) Applicant shall only provide description of foregoing natural conditions, animal and plant life, at but not to exceed level of detail required by other federal, state permits or review which are applicable to the Project.

The Project location does intersect the 100-year floodplain. The project design has been constructed around the floodplain to the best of the Applicant's ability but there are four roads that cross the floodplain and are being designed in consultation with USACE and in a manner that will minimize impact to the floodplain. The necessary floodplain development permits have been granted for this project by Pikes Peak Regional Building Department. Due to the fact that the Project upon completion will be an unmanned facility, it will not be required to have non-inundated access to the portion of the project built across the floodplain. The letter verifying such communication is attached as **(Appendix O)**.

The Applicant requested a study and subsequent report titled Non-Wetland Waters and Wetlands dated October 2, 2020 **(Appendix H)**. This report was supplied to USACE in to determine any claims for Jurisdictional Determination on specified locations that were identified **(Appendix K)**. The final response was that no jurisdictional wetlands or waters were found. No further action is required.

Environmental studies were conducted on the project site to verify that wildlife and associated habitats would be minimally affected. The reports rendered have been provided to CPW for review and concurrence in plans forward. **(Appendix J)**.

The Applicant enlisted a consultant to conduct a Biological Resources Report **(Appendix F)** and submitted said report to the Colorado Parks and Wildlife Department (“CPW”) for its review. CPW provided its concurrence **(Appendix J)** with all recommended wildlife and habitat surveys included within the report. Applicant intends to incorporate all appropriate guidelines and surveys in its pre-construction planning for the Project.

(20) Soils, Geologic, Conditions and Natural Hazards

(a) Map of Geologic Conditions and Natural Hazards

Information regarding the Geologic Conditions and Natural hazards are attached in the Geotechnical Engineering Report as **(Appendix T)** which also includes a map and laboratory test results associated with the soil conditions of the area.

The report states that geologic hazards at the site are anticipated to be low. Seismic activity in the area is anticipated to be low and from a structural standpoint the property should be relatively stable.

The Geotechnical Engineering Report states that the geologic conditions of the site consist of valley-fill alluvium, Piney Creek alluvium, eolian sand and Pierre Shale bedrock. These are primarily various amount of sand and clay. Additionally, the Non-Wetland Water Features and Wetland Report **(Appendix H)** states that none of the soils are considered hydric. There are seven soil types mapped on the NRCS soil survey including:

- Ascalon Sandy Loam
- Heldt Clay Loam
- Fort Loam
- Manzanola Silty Clay Loam, Saline
- Midway Clay Loam
- Razor Midway Complex
- Ustic Torrifluents, Loamy.

Pursuant to the Geotechnical Engineering Report **(Appendix T)** indicates that geologic hazards at the site is anticipated to be low. Seismic activity is anticipated to be low and structurally, the property is considered relatively stable. The site design will be properly graded to avoid erosional issues and further potential for natural hazards.

(b) Description of risks from natural hazards

There have been no natural hazards identified in the Project area. The Geotechnical Engineering Report **(Appendix T)** indicates low likelihood of geologic hazards. Seismic activity in the area is anticipated to be low and from a structural standpoint, the property should be relatively stable. Storm events and other natural hazards are considered in the civil design.

An Emergency Response Plan (**Appendix W**) is being developed for the site and the Applicant is working with the Hanover Fire Protection District to coordinate the plan.

Finally, the site will be designed to meet wind, snow-load, and other weather events, in accordance with El Paso County standards.

(c) Impacts and net effect on soil and geologic conditions

Earth moving consists primarily of grading and vegetation removal required for project development. The Project will likely result in ground disturbance for approximately 1,350 acres (less than the leased area and the 4,998.37-acre proposed WSE-O boundary due to setbacks and buffer distances). However, impacts on soils and geologic conditions will be negligible. Using existing topsoil for construction will help minimize erosion and help stormwater management. Since revegetation will happen after construction and ground disturbance is minimal following construction, there will be minimal impacts to soils and geologic conditions. The Project requires an approved Grading and Erosion Control Plan (**Appendix Q**) which also highlights the mitigation efforts to affect the soil and geologic conditions and uphold the integrity of the property with the Project in place.

(21) Hazardous Materials

(a) Description of Hazardous Materials

A Phase I Environmental Site Assessment (**Appendix G**) was conducted and a report rendered on October 21, 2020 that verified there were not Recognized Environmental Conditions (REC's), Controlled Recognized Environmental Conditions (CREC's), nor Historical Recognized Environmental Condition (HREC) found on the property.

Hazardous Materials for this project include petroleum products utilized during the construction phase including motor oils, fuel and hydraulic fluids. Maintenance of vehicles will be conducted off-site. A Spill Prevention, Control, and Countermeasure (SPCC) Plan will be prepared for construction. The SPCC Plan will contain information regarding training, equipment inspection and maintenance, and refueling of construction vehicles with an emphasis on spill prevention. This plan will be implemented, and a hard copy will be located on-site during construction. The Applicant's finalized SPCC Plan is supplied with the Site Development Plan application.

An Operations and Maintenance Plan (**Appendix AH**) will be in place for personnel to follow project guidelines. This will include training for personnel regarding Hazards Materials.

The lithium contained in the BESS will be considered a hazardous material. Guidelines and precautions will be taken in installing, maintaining and decommissioning this component of the project. Should there be any emergency associated with the project, a guide on how to handle the battery is outlined in the Emergency Response Plan (**Appendix W**), also included in the Site Development Plan submittal.

There will also be a Decommissioning Plan (**Appendix Y**), which will detail the proper disposal methods of components at the termination of Project operations.

(b) Location of storage areas and plans for contamination

The SPCC Plan submitted with the associated Site Development Plan application outlines a plan for controls in the event of storage or contamination of hazardous materials. Additionally, an Emergency Response Plan (**Appendix W**) also addresses how to handle the BESS and potential emergencies associated with

contamination. The Emergency Response Plan is submitted with a Site Development Plan and address feedback from the Hanover Fire Protection District.

(22) Monitoring Plan and Mitigation Plan

(a) Mitigation that is proposed to avoid, minimize, or compensate for adverse impacts of the Project and to maximize positive impacts.

i) Describe how and when mitigation will be implemented and financed

Several plans are included in this application to help minimize and mitigate adverse impacts to the Project site. The Applicant requests a waiver in providing the Monitoring and Mitigation Plan as the below will outline a series of other plans that should address these items.

In preparing the site for development, the Applicant prioritized obtaining reports and conducting studies to understand the environment, wildlife, and cultural artifacts on the site to ensure that the Project would not interfere and could work to preserve any of the findings. In doing so, the Applicant will work to avoid any potential cultural zones identified, create engineering design plans to avoid interference in the wetlands and waters of the U.S. as well as mitigate and minimize impact to the wildlife identified in the area. Vegetation removal will be limited to the areas within the siting envelope affected in the site design. An Integrated Noxious Weed Management Plan (**Appendix X**) is also in place to help mitigate noxious weeds throughout the life of the Project.

During the construction process, Grading and Erosion Control Plans (**Appendix R**) will be implemented to minimize impact in avoiding erosion and maintaining the integrity of the land. A Drainage Report (**Appendix S**) has been included in this application to illustrate how the Applicant will design the project to avoid drainage issues and interference in wetlands and waters of the U.S. There will be a Lighting Plan (**Appendix AD**) that will provide details on lighting needs both during the construction phase and operational phase of the Project. Lighting needs for the project will be very limited during both phases and only utilized as a necessity or intermittent through motion detection. In addition, the Applicant will be abiding by all guidelines stipulated in the 6.2.7 Operational Standards in the El Paso County Land Development Code including noise mitigation, dust prevention, odor, and vibration control. Additionally, the roads that will be used are identified in **Appendix AI- Haul Route Map**. The planned traffic plan for these routes and construction traffic is outlined in **Appendix AJ- Traffic Memo** and compensation for maintaining these roads will be determined through the studies conducted in the **Appendix AK- Road Conditions Survey Work Plan**.

Upon completion of the project and when the site becomes operational, the Applicant has plans in place to continue and maintain the site to ensure the facility is maintaining its functionality and safety as well as the overall site is upheld. The Applicant will be abiding by the Operations and Maintenance Plan (**Appendix AH**) to keep the facility operating properly and keep the site orderly. The Preliminary Fire Prevention and Protection Plan will be utilized for any emergency response needed for the Project. Finally, when the life of the project has ended, there is also a Decommissioning Plan (**Appendix Y**) as well as abiding by the terms of the lease of the property to ensure that the site is reclamation is conducted. The facility will be removed, and the land will be returned to its original condition.

With these plans in place during each phase of the project, it will help avoid and minimize potential negative affects to the site and will continue to help the Applicant proactively work toward the positive impacts and means of maintaining the integrity of the site.

Throughout the construction phase, there will be additional efforts included in the overall design that will be see in the **Appendix D- 1041 Map Plan**. The site includes staging areas to avoid creating an unnecessary

footprint on the location. Timing for construction activities are considered to avoiding disturbance to the community by limiting activities from 7 a.m. to 7 p.m. Overall Best Management Practices will be implemented for conducted activities on the site and maintaining the site.

ii) Describe impacts that are unavoidable that cannot be mitigated.

One risk may be wildfires or other natural disasters that may occur in the area. Although unavoidable, the Applicant has several measures in place to help mitigate through the **Emergency Response Plan (Appendix W)**. Additionally, snowstorms may be an unavoidable natural occurrence. The Applicant's design team has engineered panels and racking systems that can handle predicted snow and wind loads. Should weights exceed the design, operations and maintenance teams will be called in to help in repairs.

(b) Methodology to measure impacts of the project and effectiveness of proposed mitigation measures.

Within many of these places there are measurement sources to ensure that the goals are achieved for mitigation of negative effects and promotion of positive impacts on the site.

One such measurement source is through routine monitoring and reporting. The Project will be under continuous monitoring systems to check functionality of the systems in place. In addition, the Applicant has an internal operations and maintenance team trained in ensuring the Project will be maintained properly.

The Applicant will conduct routine inspections related to the required plans that will be submitted during the Site Development Application process including: Stormwater Management Plan and Stormwater Quality Control Permit, and Spill Prevention Control and Countermeasure Plan. These plans will help ensure the Project maintenance is up to date.

(c) Description, location and intervals of proposed monitoring to ensure that mitigation will be effective.

To help mitigate issues a **Fire Prevention and Protection Plan (Appendix V)** is established to help eliminate potential hazardous issues. Systems will be in place within the facility to monitor that technology on the Project site. Should there be any issues with the systems in place, notifications will be received, and proper actions may be taken to ensure the safety and integrity of the Project site. This will be outlined in the Emergency Response Plan (**Appendix W**). Both plans are currently in a preliminary stage and will be reviewed and worked with the Hanover Fire Protection District. Final plan will be expected to be provided for the Site Development Plan submittal.

Applicant will adhere to all plans approved by El Paso County and PPRBD.

(23) Additional Information

There has been no additional information requested at this time.