



COLORADO

Parks and Wildlife

Department of Natural Resources

SE Region Office, Area 14
4255 Sinton Rd.
Colorado Springs, CO 80907
P 719.227.5200 | F 719.227.5297

November 30, 2018

Winifred Perkins
NextEra Energy Environmental Services Manager
Winifred.Perkins@nexteraenergy.com

Re: Environmental Review for the Proposed Grazing Yak Solar Project in El Paso County, Colorado

Dear Ms. Perkins,

Colorado Parks and Wildlife (CPW) has received and appreciates the request for comments on the proposed Grazing Yak Solar Project east of the town of Calhan in El Paso County, Colorado. CPW staff is familiar with the proposed location of the project as well as the area surrounding the site. CPW visited the proposed project site on November 5th, 2018 with the developer and their consultant and has reviewed the environment report provided by the developer. NextEra is proposing to install a 35 MW photovoltaic solar facility, utilizing approximately 270 acres adjacent to the site of NextEra's Golden West wind farm.

CPW has a statutory responsibility to manage all wildlife species in Colorado; as such we encourage protection for Colorado's wildlife species and habitats through responsible energy development and land use planning. Protection of core wildlife areas, quality fisheries and habitat, big game winter range and seasonal migration corridors, and raptor nesting locations are of extreme importance. CPW recommends that all proposed projects be assessed to avoid, minimize, or mitigate impacts to sensitive wildlife habitats and species. That includes species of concern as well as Federal and/or State listed species, big game wildlife (migration corridors, winter range, parturition areas), breeding and nesting habitats for sensitive ground-nesting birds, and nests of raptors sensitive to development in order to prevent loss of habitat or fragmentation of habitat. US Fish and Wildlife Service (USFWS) should be consulted on any Federally-listed Endangered and Threatened Species that might be present at the location.



For eligible energy resources, Colorado PUC Rule 3668 on Environmental Impacts requires that new renewable energy projects conduct wildlife surveys, use these surveys to avoid, minimize and mitigate potential impacts to wildlife and their habitats, and work closely with CPW in the design of their project. In selecting sites for construction, CPW recommends that developers focus on options that avoid critical wildlife habitats over the use of mitigation strategies. Areas that exhibit high levels of wildlife use within this project area or are unique or critical habitat to wildlife would benefit greatly by not placing facility infrastructure, including transmission lines, adjacent to or over such areas. If all options for avoiding impacts are taken and prove insufficient, then minimization and mitigation strategies should be identified and implemented.

Habitat loss and fragmentation: In general, CPW recommends that the developer consolidate facilities and roads to the extent possible, to minimize the amount of land that is disturbed and fragmented. Habitat loss and fragmentation are significant concerns regarding solar development and minimizing the project footprint can help reduce the impacts to wildlife. Big game species that can potentially be found in the vicinity of the project site include mule deer, white-tailed deer, and pronghorn. The rangeland of the project site supports these big game species as well as raptor species and other local wildlife. Riparian areas are important habitats for a variety of wildlife and need to be connected as much as possible so a layout that maintains access for wildlife to those areas in particular is preferred. From the information provided to CPW, as well as observations during the site visit, there is no riparian habitat on site. If boundaries change any riparian areas in the proposed project area would be of particular concern given the limited availability of this habitat in the area and the proportionally high use of the habitat by many different species.

There is one small drainage area at the center of the project site identified as a potential wetland. It appeared that the solar array was located outside this area but if any infrastructure or disturbance is planned for that location, CPW concurs with the recommendation in the developer's environmental report to request jurisdictional determination from the USACE Southern Regulatory Office. The importance of playas was also discussed at the site visit but CPW confirmed that there are no playas mapped within the project sit or in the surrounding habitat therefore impacts to playas are not a concern for this site. Playas provide important habitat for waterfowl and other bird species, reptiles, bats, and amphibians. Placement of infrastructure within or near playas could impact wildlife habitat, avian collision risk, and playa hydrology.

The proposed location has been used primarily for grazing but also can support wildlife that utilize short grass prairie habitat including Burrowing Owl, Black-tailed prairie dog, swift fox and may include foraging habitat for Ferruginous Hawk, Swainson's Hawk, Prairie Falcon, Golden Eagle, and Pronghorn. It would be very important that any disturbed soil in this area be replanted in native grasses as soon as possible to minimize loss of top soil and the introduction of invasive noxious weeds. The developer identified areas at the center of the project area that are currently tiered that will be graded for installation of solar panels. CPW recommends that this area be seeded before panels are installed to allow for better vegetation coverage after construction is complete. CPW also recommended drill seeding over hydroseeding or other broadcast methods as drill seeding has a higher success rate for re-establishing native vegetation for sites. CPW would be happy to work with the developer and their consultant to help identify seed mixes and recommendations for timing of seeding to provide a higher probability of successful reestablishment of vegetation on site.

Noxious weed management: Also of importance are revegetation of disturbed soils and the control of noxious weed species through the development of a noxious weed management plan prior to initiating construction activities. The revegetation of disturbed areas and control of invasive weed species are important components of the project and it is critically important that the site be restored back to the native plant community that currently exists on site. CPW prefers that native vegetation be retained on site during the operational lifespan of the project, both as habitat for wildlife and to ensure successful reclamation of the project area. Proper reclamation, from a wildlife perspective, involves not only stabilizing the soil and establishing ground cover, but fostering plant communities with a diversity of species and plant types -grasses, woody plants, and broadleaf forbs- which will fully serve the nutritional needs of wildlife. Strict adherence to the Natural Resources Conservation Service's recommendations is advised. CPW would appreciate the opportunity to review the project's Noxious Weed Management Plan prior to the start of construction.

Fencing: CPW is aware that the solar project area will include security fencing. The typical specifications for security fencing make this fence type exclusionary for most wildlife. In these cases CPW requests that the project design adhere to the recommendations for exclusionary fencing that are safe for wildlife. The CPW document "Fencing with Wildlife in Mind" is available at our website and we would be happy to answer questions about fencing specific to this project. For any installed fencing CPW recommends an 8 foot fence with a smooth top to the fence (e.g., no top barbed wire or exposed metal rods) to prevent wildlife from impaling themselves.

CPW would like the opportunity to review final fencing plans when they are available. If wildlife exclusion fencing is installed CPW would request that efforts also be taken to avoid entrapping wildlife within the facility during construction of the fence and that the solar facility is checked regularly post-construction, or structures are installed to allow animals to escape, in the unlikely event that a deer or other wildlife become trapped in the facility. CPW also recommends that any security lighting be designed to minimize light pollution and take into consideration lighting initiatives to reduce impacts to wildlife.

Transmission lines: CPW preference is for new transmission lines to follow existing transmission line or infrastructure corridors whenever possible to minimize additional impacts on wildlife and habitat fragmentation. The current project identified an underground connection to the existing substation just north of the site location so no new impacts are expected for that portion of the project.

Migratory birds: Consultation with USFWS is recommended to ensure compliance with the Migratory Bird Treaty Act and the Bald and Golden Eagle Act. The best way to avoid impacts on the nesting efforts of migratory birds is to focus construction activities outside of the breeding season (March 15th -October 31st). If construction must occur during the breeding season, surveys for active nests should be conducted prior to groundbreaking. All migratory birds are protected under the Migratory Bird Treaty Act and removal or disturbance of any migratory bird nest would require consultation with CPW and USFWS prior to disturbance.

Raptors: There is limited suitable habitat within the site for nesting raptors. CPW recommends the use of preconstruction surveys, as well as continuation of those surveys during construction, in any suitable habitat to identify all raptor nests within the project area and implement appropriate restrictions. CPW recommends adherence to the recommended buffer distances and timing stipulations identified in the attached document “Recommended Buffer Zones and Seasonal Restrictions for Colorado Raptors”. Removal or relocation of any active raptor nest will require consultation with CPW and US Fish and Wildlife Service prior to disturbance. Both active and potential raptor nest sites, as well as winter night roosts should be considered when evaluating disturbance during construction.

State Threatened Species and State Species of Concern

Burrowing owl, black tailed prairie dogs, and swift fox are likely to be present in the general area of the project. While none of these species are federally listed, the burrowing owl is State Threatened and the swift fox is a State Species of Concern. Due to the status of these species, it is recommended that special precautions be

taken to avoid adverse impacts to individuals in the project area. There were no observations in the site report of prairie dogs within the project boundaries so it is unlikely that burrowing owls will be present. However, if any burrows are noted prior to or during construction we recommend the following:

Burrowing Owls: If any prairie dog colonies are located within the project area CPW recommends surveys to determine the presence/absence of *burrowing owls (Athene cunicularia)*, a state threatened bird. If development or construction in prairie dog towns occurs from February 1 to October 31, the presence of burrowing owls and whether they are actively nesting should be determined. If nesting burrowing owls are present, no human encroachment should occur within 150 ft of nesting burrows from March 15 to October 31. If burrowing owls merely occupy the site, it is recommended that earthmoving and other disturbance activities be delayed until late fall after they have migrated. Attached is CPW's protocol for surveys (Recommended Survey Protocol and Actions to Protect Nesting Burrowing Owls).

Swift fox: Swift fox is a species of state and federal concern that lives in and around the proposed area. Swift fox live here year-round, breed during December, and raise their young into the next fall. CPW recommends pre-construction surveys of suitable swift fox habitat for active dens prior to surface disturbance to identify all maternal swift fox den sites. If dens are present, we recommend the operator avoid surface disturbance within 0.25 mile of den sites while young are den dependent (approximate dates: March 15-June 15). Any disturbance or destruction of dens while young are dependent would be detrimental to these species.

CPW may have additional recommendations when the final layout and development plans are available for the proposed solar facility. There are technology-specific factors associated with avian fatality risk at solar facilities and the final site plans could influence the potential risk for birds at the location. Current plans are for a PV solar facility with no associated water holding areas on site. Any industrial surface water or evaporation ponds associated with the site could increase the risk to wildlife on the installation either due to toxicity issues or by acting as an attractant so if there are proposed changes to the site plans CPW would like the opportunity to review again. In locations with a potential risk to avian species CPW recommends development of a post-construction monitoring program in accordance with the USGS 2016 report Mortality Monitoring Design for Utility-Scale Solar Power Facilities.

CPW appreciates this opportunity to review the proposed Grazing Yak Solar Project and we look forward to reviewing any other plans (i.e. reclamation plans, changes in this plan, etc.) and biological surveys or assessments that are developed as the project nears implementation. If you have any questions regarding this letter, please contact District Wildlife Manager Aaron Berscheid at aaron.berscheid@state.co.us or

Southeast Regional Energy Liaison Karen Voltura at 719-227-5232 or karen.voltura@state.co.us.

Sincerely,

A handwritten signature in cursive script, appearing to read "Frank McGee".

Frank McGee
CPW Area 14 Wildlife Manager

Cc: Aaron Berscheid, District Wildlife Manager
Karen Voltura, SE Regional Energy Liaison

SENT VIA E MAIL

January 2, 2019

Frank McGee
Area 14 Wildlife Manager
Colorado Parks and Wildlife
4255 Stinton Road
Colorado Springs, CO 80907

Dear Mr. McGee,

NextEra Energy Resources, Inc. (NEER) would like to thank Karen Voltura and Aaron Berscheid of your staff for taking the time to conduct a site visit on November 5, 2018 to review the Grazing Yak Solar Project (Project) site located in El Paso County, Colorado and for your letter dated November 30, 2018. We have responded to the comments raised in your letter below.

HABITAT LOSS AND FRAGMENTATION

CPW Comment: In general, CPW recommends that the developer consolidate facilities and roads to the extent possible, to minimize the amount of land that is disturbed and fragmented. Habitat loss and fragmentation are significant concerns regarding solar development and minimizing the project footprint can help reduce the impacts to wildlife. Big game species that can potentially be found in the vicinity of the project site include mule deer, white-tailed deer, and pronghorn. The rangeland of the project site supports these big game species as well as raptor species and other local wildlife. Riparian areas are important habitats for a variety of wildlife and need to be connected as much as possible so a layout that maintains access for wildlife to those areas in particular is preferred. From the information provided to CPW, as well as observations during the site visit, there is no riparian habitat on site. If boundaries change any riparian areas in the proposed project area would be of particular concern given the limited availability of this habitat in the area and the proportionally high use of the habitat by many different species.

Response: NEER hired CORE Consultants, Inc. (CORE) early in the permitting and study phase of this Project to provide expert biological and engineering support. CORE conducted a desktop review and natural resources survey and prepared a Wetlands, Waterbodies, and Threatened, Endangered and Species of Special Concern Report. CORE concurs that the Project provides rangeland habitat for mule-deer, white-tailed deer, and pronghorn. However, the site is not identified by CPW as a specific concentration area for any big-game species. Nonetheless, we have designed the Project to concentrate solar arrays in the smallest area possible. CORE concurs that there is no riparian habitat located within the areas proposed for the solar array or collection line.

CPW Comment: There is one small drainage area at the center of the project site identified as a potential wetland. It appeared that the solar array was located outside this area but if any infrastructure or disturbance is planned for that location, CPW concurs with the recommendation in the developer's environmental report to request jurisdictional determination from the USACE Southern Regulatory Office. The importance of playas was also discussed at the site visit but CPW confirmed that there are no playas mapped within the project site or in the surrounding habitat therefore impacts to playas are not a concern for this site. Playas provide important habitat for waterfowl and other bird species, reptiles,

bats, and amphibians. Placement of infrastructure within or near playas could impact wildlife habitat, avian collision risk, and playa hydrology.

Response: CORE submitted the Wetlands, Waterbodies, and Threatened, Endangered and Species of Special Concern Report as part of a request for an approved Jurisdictional Determination (JD) from the U.S. Army Corps of Engineers (USACE). We received an approved JD from the USACE on November 2, 2018 (attached). The approved JD determined that no jurisdictional water features are in the areas proposed for the Project solar array or collection line. The Project facilities are set back from the small drainage located in the central portion of the solar array. There is one road crossing located along the eastern portion of the solar array; a culvert will be installed to allow passage of flows from the solar array area. The Project will not impact playas.

CPW Comment: The proposed location has been used primarily for grazing but also can support wildlife that utilize short grass prairie habitat including Burrowing Owl, Black-tailed prairie dog, swift fox and may include foraging habitat for Ferruginous Hawk, Swainson's Hawk, Prairie Falcon, Golden Eagle, and Pronghorn. It would be very important that any disturbed soil in this area be replanted in native grasses as soon as possible to minimize loss of top soil and the introduction of invasive noxious weeds. The developer identified areas at the center of the project area that are currently tiered that will be graded for installation of solar panels. CPW recommends that this area be seeded before panels are installed to allow for better vegetation coverage after construction is complete. CPW also recommended drill seeding over hydroseeding or other broadcast methods as drill seeding has a higher success rate for re-establishing native vegetation for sites. CPW would be happy to work with the developer and their consultant to help identify seed mixes and recommendations for timing of seeding to provide a higher probability of successful reestablishment of vegetation on site.

Response: CORE coordinated with the Natural Resources Conservation Service (NRCS) Simla office on December 4, 2018 to identify the preferred methods for revegetation of disturbed areas within the Project. NRCS understands that construction of the Project will require some grading and heavy equipment movement across the solar array and collection line sites. NRCS recommended that revegetation occur after construction to minimize disturbance to the newly sown seeds. We understand that drill seeding is an effective method for ensuring seeds will germinate; however, construction is planned in fall, and panel installation in early winter will prevent drill seeding within the solar array due to limited access. NRCS recommended broadcast seeding following construction at a double rate to ensure successful revegetation. Broadcast seeding can occur utilizing an all-terrain vehicle that can travel between panels. It is likely that seeding will occur in December or January, immediately following construction. NRCS recommends a cool-season introduced grass seed mix that will serve as ground cover and erosion control during the first growing season following revegetation. Native grasses will outcompete the introduced mix over time and will return the solar array to the vegetative condition prior to construction. Site stabilization will be monitored per the Storm Water Management Plan (SWMP) and the Grading and Erosion Control Plan (GEC), which requires vegetation coverage reach 70% before ceasing site monitoring activities.

NOXIOUS WEED MANAGEMENT

CPW Comment: Also of importance are revegetation of disturbed soils and the control of noxious weed species through the development of a noxious weed management plan prior to initiating construction activities. The revegetation of disturbed areas and control of invasive weed species are important components of the project and it is critically important that the site be restored back to the

native plant community that currently exists on site. CPW prefers that native vegetation be retained on site during the operational lifespan of the project, both as habitat for wildlife and to ensure successful reclamation of the project area. Proper reclamation, from a wildlife perspective, involves not only stabilizing the soil and establishing ground cover, but fostering plant communities with a diversity of species and plant types -grasses, woody plants, and broadleaf forbs- which will fully serve the nutritional needs of wildlife. Strict adherence to the Natural Resources Conservation Service's recommendations is advised. CPW would appreciate the opportunity to review the project's Noxious Weed Management Plan prior to the start of construction.

Response: The Applicant has prepared a Noxious Weed Management Plan for the Project that details pre-construction, construction, and operations noxious weed treatment and management. The plan is available for your review during the referral agency comment period for the WSE-O application. We have already coordinated with NRCS to identify an appropriate seed mix and revegetation method, as described above.

FENCING

CPW Comment: CPW is aware that the solar project area will include security fencing. The typical specifications for security fencing make this fence type exclusionary for most wildlife. In these cases CPW requests that the project design adhere to the recommendations for exclusionary fencing that are safe for wildlife. The CPW document "Fencing with Wildlife in Mind" is available at our website and we would be happy to answer questions about fencing specific to this project. For any installed fencing CPW recommends an 8-foot fence with a smooth top to the fence (e.g., no top barbed wire or exposed metal rods) to prevent wildlife from impaling themselves. CPW would like the opportunity to review final fencing plans when they are available. If wildlife exclusion fencing is installed CPW would request that efforts also be taken to avoid entrapping wildlife within the facility during construction of the fence and that the solar facility is checked regularly post-construction, or structures are installed to allow animals to escape, in the unlikely event that a deer or other wildlife become trapped in the facility. CPW also recommends that any security lighting be designed to minimize light pollution and take into consideration lighting initiatives to reduce impacts to wildlife.

Response: We have reviewed the CPW document "Fencing with Wildlife in Mind" and will revise the Project fencing design to conform with the CPW recommended fencing guidelines. The Project fencing will consist of an 8-foot fence enclosing the solar array and will not include barbed wire or exposed metal rods in the design.

TRANSMISSION LINES

CPW Comment: CPW preference is for new transmission lines to follow existing transmission line or infrastructure corridors whenever possible to minimize additional impacts on wildlife and habitat fragmentation. The current project identified an underground connection to the existing substation just north of the site location so no new impacts are expected for that portion of the project.

Response: The Project does not include the development or construction of transmission lines. The Project will utilize existing transmission lines already located nearby.

MIGRATORY BIRDS

CPW Comment: Consultation with USFWS is recommended to ensure compliance with the Migratory Bird Treaty Act and the Bald and Golden Eagle Act. The best way to avoid impacts on the

nesting efforts of migratory birds is to focus construction activities outside of the breeding season (March 15th –October 31st). If construction must occur during the breeding season, surveys for active nests should be conducted prior to groundbreaking. All migratory birds are protected under the Migratory Bird Treaty Act and removal or disturbance of any migratory bird nest would require consultation with CPW and USFWS prior to disturbance.

Response: The Project will be in compliance with the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. Project approval by El Paso County is anticipated to occur in April - May 2019. Construction is anticipated to begin in begin July 2019. The Applicant will conduct pre-construction ground clearance surveys for breeding birds to ensure compliance with the Migratory Bird Treaty Act and Bald and Golden Eagle Protection Act. However, the Project area does not provide nesting habitat for bald or golden eagles. Should surveys identify active nests, the Applicant will coordinate with CPW to determine appropriate spatial buffers for the nests until a qualified biologist determines nesting is complete.

RAPTORS

CPW Comment: There is limited suitable habitat within the site for nesting raptors. CPW recommends the use of preconstruction surveys, as well as continuation of those surveys during construction, in any suitable habitat to identify all raptor nests within the project area and implement appropriate restrictions. CPW recommends adherence to the recommended buffer distances and timing stipulations identified in the attached document “Recommended Buffer Zones and Seasonal Restrictions for Colorado Raptors”. Removal or relocation of any active raptor nest will require consultation with CPW and US Fish and Wildlife Service prior to disturbance. Both active and potential raptor nest sites, as well as winter night roosts should be considered when evaluating disturbance during construction.

Response: There is limited suitable habitat for nesting raptors approximately 0.1 mile north of the proposed solar array along Washington Road and McQueen Road. The Applicant will conduct pre-construction surveys to identify any nesting raptors within the limited suitable habitat approximately 0.1 mile north of the solar array. Should the surveys identify nesting raptors within the limited suitable habitat, CPW will be contacted to discuss appropriate spatial buffers for the nests until a qualified biologist determines nesting is complete.

State Threatened Species and State Species of Concern

CPW Comment: Burrowing owl, black tailed prairie dogs, and swift fox are likely to be present in the general area of the project. While none of these species are federally listed, the burrowing owl is State Threatened and the swift fox is a State Species of Concern. Due to the status of these species, it is recommended that special precautions be taken to avoid adverse impacts to individuals in the project area. There were no observations in the site report of prairie dogs within the project boundaries so it is unlikely that burrowing owls will be present. However, if any burrows are noted prior to or during construction we recommend the following:

Burrowing Owls: If any prairie dog colonies are located within the project area CPW recommends surveys to determine the presence/absence of *burrowing owls (Athene cunicularia)*, a state threatened bird. If development or construction in prairie dog towns occurs from February 1 to October 31, the presence of burrowing owls and whether they are actively nesting should be determined. If nesting burrowing owls are present, no human encroachment should occur within 150 ft of nesting burrows from March 15 to October 31. If burrowing owls merely occupy the

site, it is recommended that earthmoving and other disturbance activities be delayed until late fall after they have migrated. Attached is CPW's protocol for surveys (Recommended Survey Protocol and Actions to Protect Nesting Burrowing Owls).

Swift fox: Swift fox is a species of state and federal concern that lives in and around the proposed area. Swift fox live here year-round, breed during December, and raise their young into the next fall. CPW recommends pre-construction surveys of suitable swift fox habitat for active dens prior to surface disturbance to identify all maternal swift fox den sites. If dens are present, we recommend the operator avoid surface disturbance within 0.25 mile of den sites while young are den dependent (approximate dates: March 15-June 15). Any disturbance or destruction of dens while young are dependent would be detrimental to these species.

Response: CORE's natural resources survey did not identify the presence of prairie dog burrows or swift fox den sites within the Project. Nonetheless, we will conduct a pre-construction survey to confirm the absence of prairie dog burrows or swift fox den sites within the solar array and collection line. Should the pre-construction survey identify the presence of prairie dog burrows, the we will conduct burrowing owl surveys in accordance with CPW's Recommended Survey Protocols and Actions to Protect Nesting Burrowing Owls to determine presence/absence of nesting burrowing owls before construction starts in July 2019. Construction is not anticipated to occur during the swift breeding season ending in June, however, pre-construction surveys will identify the presence of swift fox den sites or nesting burrowing owls in the solar array or collection line corridor, and appropriate spatial buffers will be utilized during construction.

We hope the above responses adequately address CPW concerns and recommendations regarding the Grazing Yak Solar Project. Should you have any questions or concerns or require additional information please do not hesitate to contact me at Winifred.perkins@nee.com or 561-346-1157.

Sincerely,

Winifred G Perkins

Winifred G. Perkins
Environmental Services Manager

Enclosures: Grazing Yak Solar Project Approved Jurisdictional Determination

Cc: Karen Voltura--CPW
Aaron Berscheid--CPW