

Appendix C. Conservation Measures

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INTRODUCTION

This document provides the list of applicable conservation measures that the Silver Queen Wind Farm Project would implement during construction and operation.

Soil, Geological, and Paleontological Resources

Silver Queen is committed to implementing the conservation measures for soil resources derived from Section 5.2.3 of the 2015 PEIS, which would help avoid or minimize soil impacts associated with the Proposed Action. These measures include the following:

- Project design would avoid placing wind energy facilities in areas with unsuitable seismic, liquefaction, slope, subsidence, settling, and flooding conditions.
- Ground-disturbing construction activities would be minimized during rainy periods.
- The extent of the Project footprint would be minimized, including improved roads and construction staging areas.
- Existing roads and disturbed areas would be used to the extent possible.
- New roads would be surfaced with aggregate materials, wherever appropriate.
- Heavy vehicles and equipment would be restricted to improved roads to the extent practicable.
- Vehicle and equipment speeds would be controlled on unpaved surfaces.
- As feasible, construction and maintenance activities would be conducted when the ground is frozen or when soils are dry and native vegetation is dormant.
- Disturbed areas that are not actively under construction would be stabilized using methods such as erosion matting or soil aggregation, as site conditions warrant.
- Topsoil from all excavation and construction activities would be salvaged to reapply to disturbed areas once construction is completed.
- Excess excavation materials would be disposed of in approved areas to control erosion.
- Excavation areas and soil piles would be isolated from surface water bodies using silt fencing, bales, or other accepted appropriate methods to prevent sediment transport by surface runoff.
- Earth dikes, swales, and lined ditches would be used to divert local runoff around the work site.
- Drainage patterns and surface topography would be restored to pre-existing conditions. The original grade and drainage pattern would be reestablished to the extent practicable.
- Access roads, utility and gen-tie line corridors, and tower site areas would be regularly inspected for damage from erosion, washouts, and rutting. Corrective measures would



be taken immediately upon evidence of damage.

- Drainage problems caused by construction would be corrected to avoid damage to agricultural fields.
- All turbines, aboveground ancillary structures, and access roads would be removed from the wind energy facility during decommissioning as specified in landowner agreements. Turbine foundations would be removed to not less than 3 feet below grade, and all tower foundations below grade would be covered with topsoil and reseeded where the tower pads were located with grasses and/or natural vegetation reasonably acceptable to the landowner. The gen-tie line on WAPA property would be removed, along with the breakers and associated equipment in the line bay at the Denison Substation. The gen-tie line structures would presumably remain in place to support the NIPCO and Corn Belt lines.
- Soils in cultivated fields compacted during construction activities would be decompacted following completion of construction and during decommissioning.
- Excluding belowground portions of decommissioned turbine foundations intentionally left in place, excess concrete in active agricultural areas would not be buried or left in place.
- Coverage under the National Pollutant Discharge Elimination System (NPDES) General Permit No. 2 issued by the IDNR (IDNR 2022b) would be obtained. This permit requires development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP would be developed during the civil engineering design of the Project and include BMPs to control erosion and sedimentation.

Water Resources

Silver Queen is committed to implementing the applicable conservation measures for water resources derived from Section 5.3 of the 2015 PEIS, along with those required under the USACE 2021 NWP General Conditions (USACE 2022), the Iowa Regional Conditions (USACE 2021), the IDNR conditions for a CWA Section 401 WQC for NWPs (IDNR 2021), and conditions of the IDNR CWA Section 402 NPDES General Permit No. 2, as listed below:

- Per recommendations by the USEPA (Scoping Comment 3-6, Appendix F), Silver Queen would work with the IDNR during the floodplain permitting application process, as needed, to ensure water conveyances are adequate for potential increases in flood frequency and intensity due to climate change.
- The SPCC Plan for the Project would be developed prior to construction to manage an accidental release. Silver Queen would implement BMPs associated with the SPCC Plan to minimize potential impacts to groundwater. BMPs for spill-related effects would include storing fuels within secondary containment devices, checking vehicles and equipment for leaks, performing refueling and equipment maintenance away from wells, maintaining a spill response kit, and appropriate reporting protocols for any spills (per the Oil Pollution Act [33 U.S.C. 2701–2762]).



- A SWPPP would be developed and certified prior to the start of construction and Notice of Intent to the IDNR. A copy of the SWPPP would be retained on site and made available for inspection upon request in accordance with Iowa General (storm water) Permit #2. Implementation of the SWPPP would minimize construction activity disturbance to land and water sources nearby.
- Silver Queen would comply with Section 404 of the CWA. Any permits required would be obtained through the NWP process, which includes implementing permit conditions to reduce Project impacts to wetlands and waterbodies.
- Silver Queen would implement conditions from the CWA Section 401 WQC for NWPs, as applicable. This would be completed prior to construction to reduce Project layout impacts and develop BMPs that would reduce wetland and waterbody impacts.
- Standard erosion control BMPs would be applied to all construction activities and disturbed areas (e.g., sediment traps, water barriers, erosion control matting), as applicable, to minimize erosion and protect water quality.
- Erosion controls would be applied relative to possible soil erosion from vehicular traffic.
- Drainage ditches would be constructed only where necessary and would use appropriate structures at culvert outlets to prevent erosion.
- The Project would avoid altering existing drainage systems, including drain tile in cultivated fields, to the extent feasible, especially in sensitive areas such as erodible soils or steep slopes.
- New roads would be sited to minimize crossing of streams, wetlands, drainage bottoms.
- Catch basins, drainage ditches, and culverts would be cleaned and maintained regularly as needed from stormwater runoff from the Project during construction.
- Herbicide and pesticide use would be limited to non-persistent, immobile compounds and would be applied using a properly licensed applicator in accordance with label requirements.
- Unstable slopes and local factors that can cause slope instability (groundwater conditions, precipitation, seismic activity, high slope angles, and certain geologic landforms) would be identified, and mitigation measures implemented to ensure soil stability is maintained.
- Excess excavation materials would be disposed of in approved areas to control erosion and minimize leaching of hazardous materials.
- The original grade and drainage pattern would be re-established to the extent practicable.
- Side slopes of new channels would be constructed no steeper than 2:1 and planted with permanent, perennial, native vegetation if not armored.
- Structures would be sited to minimize impacts to wetlands.



- Equipment to be used in WOTUS would be cleaned before arriving on site. The discharge of wash water into any wetland, waterway, or any other surface water conveyances would be avoided.
- Mats for heavy equipment would be used when working in wetlands or mudflats during wet periods when soils are highly compactable, or other measures would be taken to minimize soil disturbance.
- Temporary structures would be removed after their use has been discontinued, to the maximum extent practicable.
- Disturbed areas (non-cropland) would be re-seeded with a seed mix that includes available native and naturalized species and does not contain noxious or invasive species and revegetate immediately following construction.
- If wells are utilized, they would be properly filled and capped during site decommissioning.

AIR QUALITY AND CLIMATE

Silver Queen is committed to implementing the conservation measures for air quality and climate resources derived from Section 5.4.2 of the 2015 PEIS, which would help to avoid or minimize air and climate impacts associated with the Proposed Action. These measures include the following:

- Surface access roads, on-site roads, and parking lots would use aggregates or would maintain compacted soil conditions to reduce dust generation.
- Lower speed limits on dirt and gravel access roads would be posted and enforced to minimize airborne fugitive dust.
- Potential environmental impacts from the use of dust palliatives would be minimized by taking the necessary measures to keep the chemicals out of sensitive terrestrial habitats and streams. The application of dust palliatives must comply with federal, state, and county regulations.
- All pieces of heavy equipment would be verified that they meet emission standards specified in the State of Iowa. Routine preventive maintenance would be conducted, including tune-ups to manufacturer specification for efficient combustion and minimum emissions. If possible, equipment with more stringent emission controls would be leased or purchased.
- Fuel diesel engines would be employed in facility construction and maintenance that use ultra-low sulfur diesel, with a maximum of 15 parts per million sulfur content.
- Idling of diesel equipment would be limited to no more than 10 minutes unless necessary for proper operation.
- Construction activities would be staged to limit exposure of disturbed soils.



- Unpaved roads, disturbed areas (e.g., areas with scraping, excavation, backfilling, grading, and compacting), and loose materials generated during Project activities would be watered as necessary to minimize fugitive dust generation.
- Wind fences would be installed around disturbed areas if windborne dust is likely to impact sensitive areas beyond the site boundaries (e.g., nearby residences).
- Stockpiles of soil would be sprayed with water, covered with tarpaulins, and/or treated with appropriate dust suppressants, especially when high wind or storm conditions are likely. If possible, temporary cover crops would be used to limit dust generation for stockpiles that will be inactive for extended periods.
- Workers would be trained to limit idling, comply with speed limits, use good engineering practices, minimize the drop height of excavated materials, and minimize disturbed areas.
- Vehicles transporting loose materials would be covered when traveling on public roads, and/or loads would be kept sufficiently wet and below the freeboard of the truck to minimize wind dispersal.
- Tires of construction-related vehicles would be cleaned and inspected, as necessary, so the tires are free of dirt prior to entering paved public roadways.
- Visible trackout or runoff dirt would be cleaned (e.g., through street vacuum sweeping) from the construction site off public roadways.

In addition, Silver Queen is committed to implementing recommendations from the USEPA determined during early coordination:

- Energy consumption would be reduced by using energy-efficient and/or sustainable vehicles and building materials such as motion-sensor lighting and Energy Star certified materials to the greatest extent possible for the O&M facility.

NOISE

Silver Queen is committed to implementing the applicable conservation measures for noise derived from Section 5.5.2 of the 2015 PEIS, which would help to avoid or minimize noise impacts associated with the PPA. In addition, as part of its development agreement with Crawford County (see Appendix A), Silver Queen has agreed to site Project wind turbines such that turbine noise levels would not exceed 45 dBA at residences occupied as of the start of construction, unless waived in writing by the landowner. This restriction would be applied to turbines in Carroll County as well and is more protective than the standard industry setback requirement of 50 dBA.

All applicable conservation measures include:

- Turbines would be sited at sufficient distance from occupied residences of landowners to limit noise levels from the Project to 45 dBA or less.



- Equipment with the lowest noise levels available and no prominent discrete tones would be selected, when possible.
- Equipment would be maintained in good working order in accordance with manufacturer specifications. Suitable mufflers and/or air-inlet silencers would be installed on internal combustion engines and certain compressor components.
- Vehicles traveling within and around the PPA would be operated in accordance with posted speed limits.
- A process for documenting, investigating, evaluating, and resolving Project-related noise complaints has been established and would be implemented by Silver Queen.
- When possible, noisy construction activities would be limited to times when nearby sensitive receptors are least likely to be disturbed.
- Noisy activities would be scheduled to occur at the same time whenever feasible, since additional sources of sound generally do not greatly increase sound levels at the site boundary.
- Stationary construction equipment (e.g., compressors or generators) would be located as far as practicable from nearby sensitive receptors.

In the unlikely event that blasting or pile driving may be needed during the construction period, nearby residents would be notified in advance.

VEGETATION

Silver Queen is committed to implementing the following conservation measures in Section 5.6.2 of the 2015 PEIS to avoid or minimize impacts to vegetation. In addition, many conservation measures listed in Sections 3.1 and 3.2 would also reduce impacts to vegetation.

- Disturbance to natural vegetation and soil would be minimized.
- Infrastructure and access routes would avoid properties enrolled in the USDA FSA CRP and NRCS ACEP, or work with landowners and the agencies to ensure program compliance.
- Where feasible, the Project would be located in already altered landscapes.
- Habitat disturbance would be reduced by keeping vehicles on access roads and minimizing foot and vehicle traffic through undisturbed areas.

- A revegetation plan would be developed to restore all temporary workspaces in non-cropland to pre-construction vegetation with certified weed-free seed. Revegetation would be initiated as soon as possible after construction activities are completed, or a cover crop placed where needed to prevent soil erosion and weed infestation if permanent restoration is delayed. The construction contractor would coordinate with the NRCS and/or the landowner on seed mixes for revegetation. The seed mixes and revegetation plan would be developed as part of the SWPPP for the Project.
- A plan would be developed to manage and control noxious weeds and invasive plants during and for up to three years following construction to ensure compliance with the Iowa Weeds Law and landowner agreements. The plan would address monitoring, weed identification, mechanisms for weed spread, and methods for treating infestations. The use of certified weed-free seed and mulch would be required.
- A controlled inspection and cleaning area would be established outside of active agricultural areas for trucks and construction equipment arriving from locations with known invasive vegetation problems to limit the possibility of the spread of noxious weeds. Construction equipment arriving at the Project would be visually inspected and seeds that may be adhering to tires and other equipment surfaces would be removed and contained.
- Access roads, newly established utility gen-tie line corridors, and tower site areas would be regularly monitored for the establishment of invasive plant species. Silver Queen would take commercially reasonable steps to eliminate noxious weeds caused by the Project construction where it is reasonably evident that such intrusion was caused or aggravated by the Project's development activities.
- Fill materials that originate from areas with known invasive vegetation problems would not be used.
- Topsoil excavated during decommissioning activities would be salvaged and reapplied to disturbed areas during final restoration activities.
- Revegetation measures would be implemented in accordance with landowner agreements.

WILDLIFE

Silver Queen is committed to implementing the applicable conservation measures for wildlife resources derived from Section 5.6.2 of the 2015 PEIS, which would help to avoid or minimize wildlife impacts associated with the Proposed Action. These measures include the following:

- The Project's BBCS (Appendix H) would be implemented in accordance with the WEG and *Eagle Conservation Plan Guidance* (USFWS 2013a) to minimize impacts to avian and bat species during construction and operation of the Project. Examples of measures within the BBCS are summarized below.



- The WEG would be followed for the lighting of the Project. Procedures include minimizing lighting on turbines, using lights with timed shutoff, downward-directed lighting to minimize horizontal or skyward illumination, avoidance of steady-burning, high-intensity lights, and keeping lighting at substations and other O&M facilities at a minimum required for safety and security needs.
- To the extent commercially reasonable, power generation would be maximized per turbine, which would help reduce the number of turbines needed to achieve maximum energy production.
- Vehicle speeds for Project personnel and Project contractors on non-public access roads within the PPA would be limited to 25 mph during construction and operation to avoid wildlife collisions, and construction vehicles would be restricted to pre-designated access routes. Following Project construction, roads not needed for site operations would be restored to native vegetation, where feasible.
- Appropriate natural fiber erosion control methods would be used to eliminate or minimize runoff and avoid impacts to hydrology.
- A noxious weed plan would be developed and implemented in accordance with land lease agreements during construction and operation and in compliance with the Iowa Weeds Law.
- All trash in containers would be covered. All garbage or human waste generated on site would be promptly disposed of to avoid attracting nuisance wildlife.
- Un-guyed permanent MET towers would be constructed. Silver Queen does not anticipate the need for guyed permanent MET towers; if permanent guyed MET towers should be needed, bird flight diverters for guy wires would be used.
- Where applicable, the Project's aboveground power lines would be designed and constructed to minimize avian electrocution.
- Fire hazards from vehicles and human activities would be reduced.
- Pest and weed control measures would be implemented as specified by county, state, and federal requirements.
- A carcass removal program would be implemented to minimize potential attractants for carrion-feeding birds in proximity to operating wind turbines.
- Worker awareness training would be provided to all employees and contractors working on site for identifying and responding to encounters with sensitive biological resources, including avian and bat species.
- Post-construction avian and bat fatality monitoring would be conducted over a 2-year period, exceeding WEG recommendations and Section 7 consultation requirements for federally protected bat species (see Section 3.7). This meets the minimum 2-year survey recommended by the IDNR for wind energy projects (IDNR 2023a,b).



- Wildlife mortality observations would be reported to the appropriate state or federal agency in a timely manner, and the Project would work with agencies to use this information to consider further procedures to avoid/minimize/offset impacts. Further, in accordance with the BBCS, any incident involving a state or federally listed threatened or endangered species, or a golden or bald eagle, would be reported to the USFWS and the IDNR within 24 hours of identification.
- Silver Queen would limit tree clearing during the bat active season (April 1 – September 30) and the primary Iowa bird nesting season (May 15 – August 1). If tree clearing is necessary within this period, a bio-monitor will survey planned cleared areas for roosting bats and/or nesting birds prior to tree clearing.
- Silver Queen would regularly assess potential risk to eagles during Project operation to ensure compliance with the BGEPA.
- Pre-construction surveys were conducted to determine potential avian and bat use within and around the Project (Appendix H).
- Employees, contractors, and site visitors would be instructed to avoid harassment and disturbance of wildlife, especially during the primary nesting season (May 15 to August 1 for non-raptors; USDA 2018).
- Project personnel and Project contractors will not bring unleashed dogs on the Project site.
- Wind turbine buffer zones would be established around known raptor nests as for bald eagles (660 feet).
- If needed during construction, explosives would only be used within specified times and at specified distances from sensitive wildlife or surface waters as established by the appropriate federal and state agencies.
- Construction and O&M staff would be trained to recognize sensitive species.

FEDERALLY LISTED SPECIES

Northern Long-eared Bat

Conservation measures are being determined through the ongoing ESA Section 7 formal consultation.

Tricolored Bat

Conservation measures are being determined through the ongoing ESA Section 7 formal conference.

Little Brown Bat

While there are no species-specific conservation measures proposed for the LBBA, the conservation measures proposed for the other bat species is expected to help conserve LBBA as well.

Monarch Butterfly

Silver Queen would minimize impacts to the monarch butterfly by minimizing disturbance to natural vegetation, as detailed in Section 3.5.2. In addition, impacts to the monarch butterfly would be mitigated through the revegetation of disturbed, non-cultivated areas using native plants like milkweed, which is an important food source for monarch butterflies and caterpillars.

Western Prairie Fringed Orchid

To minimize the risk of take, the Project would implement the applicable measures from the western prairie fringed orchid 2015 PEIS consistency form. These measures are listed below:

- Preconstruction evaluations and/or surveys in areas of potential occurrence would be conducted to identify suitable habitat and areas of occurrence within Project boundaries. Surveys would include proper identification and survey techniques based on recommendations from the USFWS on the most current survey protocols.
- The size of areas in which soil would be disturbed or vegetation would be removed would be minimized.
- Vehicles would use established access roads and Silver Queen would minimize foot and vehicle traffic in undisturbed areas to minimize habitat disturbance.
- Turbines, access roads, gen-tie line towers, and other Project facilities would avoid being sited in occupied western fringed prairie fringed orchid habitat.
- Buffers (100 ft) would be placed around western fringed prairie fringed orchid locations within the PPA and activities would be restricted within these locations.
- Actions that could alter surface water flow, infiltration, and groundwater levels in suitable habitat would be avoided.
- Additional BMPs to control invasive plants in areas of suitable western prairie fringed orchid habitat that would be disturbed by Project activities would be employed (see Section 3.5).
- Additional BMPs identified in the SWPPP would be employed during and after construction to control erosion and runoff along access roads adjacent to suitable western prairie fringed orchid habitat (see Sections 3.1 and 3.2).
- Habitat restoration of disturbed soils and vegetation would be initiated as soon as possible after construction activities are completed. Areas of disturbed soil (in suitable western prairie fringed orchid habitat) would be restored using weed-free native grasses, forbs, and shrubs, in consultation with land managers and appropriate agencies, such as state or county extension offices or weed boards.

VISUAL RESOURCES

Silver Queen is committed to implementing the conservation measures derived from Section 5.7.1.3 of the 2015 PEIS to minimize visual impacts from construction and operation of the Project.

- For ancillary buildings and other structures, low-profile structures would be chosen whenever possible to reduce their visibility.
- Color selections for turbines would be made to reduce visual impact and applied uniformly to tower, nacelle, and rotor, unless gradient or other patterned color schemes are used.
- Grouped structures would be painted the same color to reduce visual complexity and color contrast.
- For ancillary structures, materials and surface treatments would repeat and/or blend with the existing form, line, color, and texture of the landscape. If the Project were viewed against an earthen or other non-sky background, appropriately colored materials would be selected for structures, or appropriate stains/coatings applied to blend with the Project's backdrop.
- Silver Queen would use non-reflective paints and coatings on wind turbines, visible ancillary structures, and other equipment to reduce reflection and glare.
- Turbines, visible ancillary structures, and other equipment would be painted before or immediately after installation.
- Lighting for facilities would not exceed the minimum required for safety and security, and full-cutoff designs that minimize upward light scattering (light pollution) would be selected. If possible, site design would be accomplished to make security lights nonessential. Where necessary, security lights would be extinguished except when activated by motion detectors (e.g., only around the substation).
- Commercial messages and symbols (such as logos, trademarks) on wind turbines would be avoided and would not appear on sites or ancillary structures of the Project. Billboards and advertising messages would also be discouraged.
- Visual impact mitigation objectives and activities would be discussed with equipment operators before construction activities begin.
- Turbines were cited in accordance with county requirements to limit shadow flicker resulting from Project wind turbines at currently occupied residences to 30 hours/year or less, unless waived in writing by the owner of the occupied residence.
- Existing rocks, vegetation, and drainage patterns would be preserved to the maximum extent possible.
- Installation of gravel and pavement would be avoided where possible to reduce color and texture contrasts with the existing landscape.
- For road construction, excess fill would be used to fill uphill-side swales to reduce slope interruption that would appear unnatural, and to reduce fill piles.



- The geometry of road ditch design would consider visual objectives; rounded slopes are preferred to V-shaped and U-shaped ditches.
- Road-cut slopes would be rounded, and the cut/fill pitch would be varied to reduce contrasts in form and line; the slope would be varied to preserve specimen trees and nonhazardous rock outcroppings.
- Planting pockets would be left on slopes, where feasible.
- Benches would be provided in rock cuts to accent natural strata.
- Topsoil from cut/fill activities would be segregated and spread on freshly disturbed areas to reduce color contrast and aid rapid revegetation. Topsoil piles would not be left in sensitive viewing areas.
- Excess fill material would not be disposed of downslope to avoid creating color contrast with existing vegetation/soils.
- Communication and other local utility cables would be buried.
- Signage would be minimized; reverse sides of signs and mounts would be painted or coated to reduce color contrasts with the existing landscape.
- The burning of trash would be prohibited during construction; trash would be stored in containers and/or hauled off-site.
- Litter would be controlled and removed regularly during construction.
- Inoperative Project turbines would be repaired, replaced, or quickly removed.
- Nacelle covers and rotor nose cones would always be in place and would be undamaged.
- Nacelles and towers would be cleaned regularly (yearly, at a minimum) to remove spilled or leaking fluids and the dirt and dust that accumulates, especially in seeping lubricants.
- Facilities and off-site surrounding areas would be kept clean of debris, “fugitive” trash or waste, and graffiti. Scrap heaps and materials dumps would be prohibited and prevented. Materials storage yards, even if thought to be orderly, would be kept to an absolute minimum. Surplus, broken, or disused materials and equipment of any size would not be allowed to accumulate.
- Maintenance activities would include litter cleanup and noxious weed control.
- Road maintenance activities would avoid blading of existing forbs and grasses in ditches and adjacent to roads; however, any invasive or noxious weeds would be controlled as needed.
- Interim restoration would be undertaken during the operating life of the Project as soon as possible after disturbances.
- An ADLS would be installed to detect and trigger turbine lighting for safer nocturnal aircraft while simultaneously minimizing visual impacts for surrounding landowners and nocturnal animal migrants.



CULTURAL RESOURCES

In the event a cultural resource should be discovered during construction, Silver Queen has committed to the following conservation measures:

- If human remains are found within the Project-direct APE, work would cease immediately within 50 feet of the find, and Silver Queen would adhere to the requirements of Iowa state law, and the appropriate law enforcement officials and WAPA would be contacted. No materials would be removed from the find location. Once it is determined by a professional archaeologist that the remains are archaeological, the appropriate SHPO would be contacted to determine how the remains should be addressed.
- Archaeological resources (excluding human remains) discovered during construction would immediately be brought to the attention of WAPA. Work would be halted in the vicinity of the find to avoid further disturbance of the resources while the resources are evaluated and appropriate mitigation plans are developed in consultation with interested tribes and SHPO.

LAND USE AND PUBLIC FACILITIES

Silver Queen is committed to implementing the following conservation measures for land use and public facilities derived from Section 5.1.2 of the 2015 PEIS to avoid or minimize land use, land ownership, and public facility impacts. In addition, many of the conservation measures listed in Sections 3.1, 3.2, 3.4, 3.5, and 3.8 would also help reduce these impacts.

- Construction activities would be coordinated with landowners to minimize interference with farming or livestock operations. Issues that would need to be addressed could include installation of gates and cattle guards where access roads cross existing fence lines, access control, signing of open range areas, traffic management (e.g., vehicle speed management), and location of livestock water sources.
- The area disturbed by installation of MET towers (i.e., footprint) would be kept to a minimum.
- “Good housekeeping” procedures would be developed to ensure that during operation the site would be kept clean of debris, garbage, fugitive trash, or waste; to prohibit scrap heaps and dumps; and to minimize storage yards.
- Access roads would be designed and constructed to the appropriate standard necessary to accommodate the intended function (e.g., traffic volume and weight of vehicles) and minimize erosion. Access roads that are no longer needed would be recontoured and reclaimed.
- The Project would enter into county Road Use Agreements to obtain the appropriate access and use permits, and to minimize impacts to county roads.



- A transportation plan would be prepared that identifies measures the developer would implement to comply with state or federal requirements and to obtain the necessary permits. This plan would address the transport of turbine components, main assembly crane, and other large pieces of equipment. The plan would consider specific object size, weight, origin, destination, and unique handling requirements and shall evaluate alternative means of transportation (e.g., rail or barge).
- Project personnel and contractors would be instructed and required to adhere to speed limits commensurate with road types, traffic volumes, vehicle types, and site-specific conditions to ensure safe and efficient traffic flow.
- During construction, O&M, and decommissioning phases, traffic would be restricted to designated Project roads. Use of other unimproved roads would be restricted to emergency situations.

SOCIOECONOMICS

No conservation measures are deemed necessary for socioeconomics given the economic benefits to the community from Project construction and operation.

ENVIRONMENTAL JUSTICE

No conservation measures are deemed necessary for environmental justice since no impacts are anticipated.

HEALTH AND SAFETY

Silver Queen is committed to implementing the following conservation measures for health and safety derived from Section 5.13.4 of the 2015 PEIS, which would help to avoid or minimize health and safety impacts associated with the Project. In addition, many conservation measures listed in Sections 3.1-3.4 and 3.8 would also help reduce health and safety impacts.

- An emergency action plan would be developed and implemented for the Project.
- A health and safety program would be developed that addresses protection of public health and safety during site characterization, construction, operation, maintenance, and decommissioning activities. The program would reference the Crawford County Development Agreement (Appendix A) for a setback for wind energy facilities, as well as setback from associated gen-tie lines from residences and occupied buildings, roads, rights-of-ways, and other public access areas, that is sufficient to limit accidents resulting from various hazards during all phases of development. The program would identify requirements for temporary fencing around staging areas, storage yards, and excavations during construction or decommissioning activities. It would also identify measures to be taken during the operations phase to limit public access to facilities.
- The Project would work with appropriate agencies (e.g., U.S. Department of Energy [DOE] and Transportation Security Administration) to address critical infrastructure and

key resource vulnerabilities at wind energy facilities, and to minimize and plan for potential risks from natural events, sabotage, and terrorism.

- A Phase I Environmental Site Assessment was conducted in part to ensure the Project would not result in the release of any existing soil contamination of hazardous substances that could pose a risk to human health and the environment. Results will be included in the Final EA.
- A traffic management plan would be prepared for the site access roads to verify that no hazards would result from increased truck traffic and that traffic flow would not be adversely impacted. This plan would identify measures for implementation to comply with any state or federal Department of Transportation (DOT) requirements, such as informational signs, flaggers when equipment may result in blocked throughways, and traffic cones to identify any necessary changes in temporary lane configurations. Signs would be placed along roads to identify speed limits, travel restrictions, and other standard traffic control information.
- A hazardous materials and waste management plan would be developed and implemented for all phases of the Project.
- Hunting would not be allowed on the property during construction while Project personnel are present.

