



**Minnesota Department of Natural Resources
Division of Ecological & Water Resources
500 Lafayette Road
St. Paul, MN 55155-4040**

May 2, 2025

Lauren Agnew
Minnesota Department of Commerce
85 7th Place East, Suite 280
St. Paul, MN 55101

**RE: In the Matter of the Application of Castle Rock Solar LLC for a Site Permit for the up to 150 MW Castle Rock Solar Project in Dakota County, Minnesota.
PUC Docket Number: IP-7137/GS-24-267**

Dear Lauren Agnew,

The Minnesota Department of Natural Resources (DNR) has reviewed the site permit application for the Castle Rock Solar Project (Applicant) to construct an up to 150 MW solar energy generating system (Project). Based on the review of the application, the DNR offers the following comments regarding potential environmental and wildlife impacts that should be considered in scoping for the Environmental Assessment (EA).

Security Fencing

The site permit application indicates the security fencing around the Project will be eight feet high. The DNR recommends the security fence reaches a minimum height of 10 feet to prevent white-tailed deer and other large wildlife from entering the facility. Our agency also advises against the use of barbed wire due to entanglement and injury concerns it can cause to wildlife. The final security fence plan should be designed in accordance with our agency's [Fencing Handbook for 10ft Woven Wire Deer Exclusion Fence](#). While the DNR understands the security fence design must follow the National Electrical Code, our agency requests the Applicant adhere to the DNR's fencing guidance to the maximum extent practicable.

Karst Features

The Project is partially within a region prone to surface karst feature development. The applicant must coordinate with geotechnical experts to limit any potential pollution of this sensitive hydrogeology. The EA should describe how design and construction methods will ensure the downward migration of unwanted materials into the groundwater does not occur.

Loggerhead Shrike

The EA should address potential impacts to the loggerhead shrike (*Lanius ludovicianus*), a state-listed endangered bird that has been documented in the vicinity of the project site. These birds can be found in native prairie, pastures, shelterbelts, old fields or orchards, cemeteries, grassy roadsides, and farmyards. Given the potential for this species to be found in the vicinity of the project, tree and shrub removal should be avoided during the breeding season, April through July. If tree clearing cannot be avoided during loggerhead shrike breeding period, a qualified surveyor needs to conduct a survey for active nests before any trees or shrubs will be removed. See the attached Natural Heritage review letter (MCE-2024-00760) for details about necessary surveys.

Lighting

The DNR recommends the EA discuss measures to mitigate the impacts lighting will have on wildlife. LEDs are often installed at solar facilities due to their efficiency and cost competitiveness. LEDs tend to emit blue hue which can adversely affect wildlife and insects. The DNR's [Commercial Solar Siting Guidance](#) advises the nominal color temperature of lighting installed does not exceed 4,000 kelvin. The *Commercial Solar Siting Guidance* also recommends lighting is downlit and shielded to minimize blue hue, backlight, and glare.

Dust

The DNR appreciates the Applicant's commitment to avoid dust control agents that contain chloride. Dust control agents that contain chloride do not break down and may accumulate to levels that are toxic to wildlife and plants. The DNR recommends the EA address fugitive dust levels and dust suppression measures that will be taken during construction and once the facility is operational.

Wildlife-Friendly Erosion Control

The EA should discuss the use of wildlife-friendly erosion control. Due to entanglement issues with small animals, the DNR recommends that erosion control blankets be limited to "bio-netting" or "natural netting" types, and specifically not products containing plastic mesh netting or other plastic components. Hydro-mulch products may contain small synthetic (plastic) fibers to aid in its matrix strength. These loose fibers could potentially re-suspend and make their way into nearby waterways. Our agency appreciates the Applicant commitment to using wildlife-friendly erosion control materials.

Native Plant Communities

The EA should discuss the presence of native plant communities and measures to avoid or minimize impacts to these ecologically significant resources. The EA should refer to the Natural Heritage Review letters (MCE-2024-00760) for specific actions to minimize disturbance to native plant communities.

Vegetation Management Plan

The EA should discuss the construction and vegetation reestablishment phases to minimize stormwater runoff, stabilize soil, and support habitat. The DNR recommends the utilization of a vegetation management plan (VMP) throughout the permitted sites. The VMP should be consistent with the DNR's [Prairie Establishment and Maintenance Technical Guidance for Solar Projects](#), which provides technical guidance for prairie establishment and management at solar sites. The site permit application states that the bottom edge of the modules will be a minimum of 18 inches above grade at maximum tilt. Our agency advises increasing the height of the module to accommodate the growth of high diversity seed mixes. The aim of a VMP should be to develop native seed mixes that suit site conditions and are pollinator-friendly and habitat-friendly. The DNR and other members of the Vegetation Management Plan Working Group look forward to future coordination on the Applicant's VMP.

The DNR appreciates the opportunity to comment on the Castle Rock Solar project. Please contact me if you have questions about our agency's comments.

Sincerely,

Martin Donovan
Energy Review Planner
Martin.Donovan@state.mn.us
651-259-5402

Attachment: Natural Heritage Review Letter

CC: Melissa Collins, Minnesota Department of Natural Resources

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