

Alberta Environment and Protected Areas - Fish and Wildlife Stewardship Renewable Energy Referral Report

The Sunrise Solar Power Project (the Project) proposed by Sunrise Solar Limited Partnership (the Proponent) was reviewed by the Alberta Environment and Protected areas – Fish and Wildlife Stewardship (AEPA-FWS) regional wildlife contact for renewable energy projects. AEPA-FWS has reviewed the proposed location, mitigation strategies, including associated infrastructure and construction plans, and post-construction monitoring and mitigation program. Project information was presented by the Proponent in a submission dated December 13, 2022, and accepted by AEPA-FWS on December 15, 2022.

The AEPA-FWS review of the Sunrise Solar Power Project was guided by the AEPA-FWS policy document, *Wildlife Directive for Alberta Solar Projects* (October 2017; hereafter called the *Directive*) and the *Post-Construction Survey Protocols for Wind and Solar Energy Projects* (January 2020; hereafter called the *PCMP Protocol*). The Proponent must follow the *Directive* and *PCMP Protocol* for requirements on siting, pre-construction surveys, construction, operation, and post-construction monitoring and mitigation plans.

This referral report summarizes the review undertaken by AEPA-FWS that was restricted to reviewing information provided in the submitted documents, completed by McCallum Environmental on behalf of the Proponent, and applying the wildlife standards and best management practices for the siting, construction and operation of the solar facility. This office undertook no independent on-site assessment. This Renewable Energy Referral Report is not intended to relieve any party from any liability if there are detrimental effects to wildlife or wildlife habitat during construction or operation that were not identified and mitigated for in the documents submitted. It is the responsibility of the Proponent to ensure compliance under all other policy and legislation, including but not limited to the *Alberta Wetland Policy*, *Water Act*, *Code of Practice for Watercourse Crossings*, *Environmental Protection and Enhancement Act*, *Alberta Wildlife Act*, *Migratory Bird Convention Act*, and *Species at Risk Act*. Federal requirements may differ from AEPA-FWS policy, therefore additional consultation may be necessary. AEPA-FWS review does not eliminate the need for review by other branches of the Environment and Parks Department, Government of Canada or other governing bodies. This referral report summarizes the potential risks to wildlife and wildlife habitat based on the information provided to AEPA-FWS.

Signature:  Date: February 28, 2023

Printed Name and Position: Daniel Knop, Wildlife Biologist, South Region, Lethbridge, Alberta

Signature:  Date: February 28, 2023

Printed Name and Position: Jason Unruh, Wildlife Biologist, South Region, Red Deer, Alberta

Referral Report Summary

Please see the body of this report along with supporting information found in the project application and the AEPA *Wildlife Directive for Alberta Solar Energy Projects* for details on specific topics within this summary.

AEPA-FWS has determined that the risk to wildlife habitat, breeding and key features for species at risk is low, based on the Project’s overall location, implementation of setbacks and siting to avoid areas of higher quality habitat.

AEPA-FWS has determined the risk to wetlands is low based on the lack of wetlands in the project area. There are two small permanent watercourses in the project area. All above ground infrastructure has been sited outside of the setbacks for these watercourses, but three underground collector lines will cross one of the watercourses. The Proponent has committed to mitigation measures during collector line installation, which will reduce the risk to wildlife habitat; therefore, the risk to watercourses has been assessed as low.

AEPA-FWS has determined the risk to birds is low because of the limited occurrence of species of management concern and general siting and location of the Project.

The Project is sited within sharp-tailed grouse, ferruginous hawk, prairie falcon, bald eagle and golden eagle range, but no evidence of nests or leks was found for any of these species during surveys. The risk to sensitive wildlife features has therefore been assessed as low.

AEPA-FWS has determined the Sunrise Solar Power Project proposed by SunSire Solar Limited Partnership, poses a low risk to wildlife and wildlife habitat, based on Project siting, limited wildlife use in the area, and implementation of appropriate setbacks. This AEPA-FWS Renewable Referral Report expires on February 28, 2028.

<i>Project Information</i>	<i>Project Details</i>
Project Name	Sunrise Solar Power Project
Municipality/County	Pincher Creek
Project MW	75 MW
Proponent Name	Sunrise Solar Limited Partnership
Consultant Name	McCallum Environmental
Project Documents Submitted ¹	<ul style="list-style-type: none"> Sunrise Solar Project - AEP Submission_221213 SunriseSolar_FWMIS Loadform_2021 SunriseSolar_fwmis_area_search_2022
Date of Referral Report Expiry	February 28, 2028
Overall Risk Ranking	Low

¹ Note: various clarifications and edits of the original documents are discussed in the subsequent files and these changes are to supersede the original documents.

PROJECT SITING

Native and Critical Habitats

Risk Ranking: Not Applicable Low Moderate High High Unmitigated

Infrastructure sited within suitable habitat or applicable setbacks: Yes No

Comments/Mitigation: The project is sited entirely on cultivated lands. There is no suitable high quality wildlife habitat within the project area.

Wetlands

Risk Ranking: Not Applicable Low Moderate High High Unmitigated

Infrastructure sited within suitable habitat or applicable setbacks: Yes No

Comments/Mitigation: There is only one wetland within the project area, which is a dugout that lies about 85 m south of the project fence. There are no temporary or seasonal marshes or ephemeral waterbodies that were identified during desktop or field assessments.

Watercourses

Risk Ranking: Low Moderate High High Unmitigated

Infrastructure sited within suitable habitat or applicable setbacks: Yes No

Comments/Mitigation: There are two small permanent watercourses that were identified in the project area. No primary infrastructure (e.g. solar panels) is sited within the 45 m setbacks for either watercourse, but there are collector lines sited through one of the watercourses. Three collector lines running side by side are sited through this watercourse. These will be installed following the requirements outlined in the Code of Practice for Pipelines and Telecommunication Lines Crossing a Waterbody. They will be installed using open cut methods if the watercourse is dry, or directional drilling if not. AEPA-FWS has assessed the risk to watercourses as low due to siting of all primary infrastructure outside of all setbacks along with mitigation measures that will reduce the risk to wildlife and wildlife habitat during collector line installation.

WILDLIFE FEATURES

Raptor Nests (Sensitive and Non-Sensitive)

Risk Ranking: Low Moderate High High Unmitigated

Is the project sited within the wildlife range/zone? Yes No Not Applicable

Was the survey completed according to the Standards? Yes No Not Applicable

Is the project sited within the setbacks? Yes No

Comments/Mitigation: The project is sited within ferruginous hawk, prairie falcon, bald eagle and golden eagle range, but no evidence of nests was found for any of these species during surveys. The risk for raptor nests has therefore been assessed as low.

Sharp-tailed Grouse

Risk Ranking: Low Moderate High High Unmitigated

Is the project sited within the wildlife range/zone? Yes No Not Applicable

Was the survey completed according to the Standards? Yes No Not Applicable

Is the project sited within the setbacks? Yes No

Comments/Mitigation: The project is sited within sharp-tailed grouse range, but no evidence of leks or individual birds was found during surveys, therefore the risk to sharp-tailed grouse has been assessed as low.

BIRD RISK

Breeding Birds

Risk Ranking: Low Moderate High High Unmitigated

Comments/Mitigation: Three bobolinks were observed during surveys, which was the only species of management concern found during breeding bird surveys. Average activity for surveys was 2.1 birds per minute. Given the low abundance of species of management concern, low bird activity, and a lack of suitable habitat in the project area, AEPA-FWS has assessed the risk to breeding birds as low.

Bird Risk

Risk Ranking: Low Moderate High High Unmitigated

Comments/Mitigation: Only two species of management concern were observed during fall surveys (1 bald eagle and 1 golden eagle), and no species of management concern were observed during spring surveys. Average bird activity for these surveys was also low (0.98 birds/min spring and 2.2 birds/min fall). There are no stopover sites or high quality habitat within the project area. AEPA-FWS has assessed the bird risk as low due to limited use by species of management concern, low bird activity and the lack of stopover sites or high quality habitat in the project area.

Other Wildlife Risks

Guy Wires

Risk Ranking: Not Applicable Low Moderate High High Unmitigated

Comments/Mitigation: No guy wires are needed.

Collection Lines

Risk Ranking: Low Moderate High High Unmitigated

Comments/Mitigation: Most collection lines will be sited underground using minimal disturbance techniques. Three collector lines, running side by side, are sited through a permanent watercourse. These will be installed following the requirements outlined in the Code of Practice for Pipelines and

Telecommunication Lines Crossing a Waterbody. They will be installed using open cut methods if the watercourse is dry, or directional drilling if not. AEPA-FWS has assessed the risk of collection lines as low due to underground siting and mitigation measures implemented for the watercourse crossing.

Fencing

Risk Ranking:

Low Moderate High High Unmitigated

Comments/Mitigation: The fence will be constructed with a 5-15 cm clearance resulting from topographic changes. The design of the fence does not create entrapment risk or impede wildlife movement, therefore AEPA-FWS has assessed the fencing risk as low.

Ground Disturbance and Vegetation Management

Risk Ranking:

Low Moderate High High Unmitigated

Comments/Mitigation: Minimal site grading is anticipated for the project, with most of the grading occurring for internal access roads. The proponent plans to use grazing (e.g., sheep) to manage vegetation by adjusting timing and stocking rates to target desired species. If grazing cannot keep vegetation under control, targeted spraying or mowing may be used as an additional measure. There is no high value habitat within the project area that may be affected by soil striping or grading, therefore AEPA-FWS has assessed the risk to ground disturbance and vegetation management as low.

Post Construction Monitoring Plan

Risk Ranking:

Low High High Unmitigated

Has the Proponent committed to post-construction monitoring that follows requirements outlined in the *PCMP Protocol*? (Post-construction monitoring reports must be submitted to AEPA-FWS and the AUC annually by the end of January following the mortality monitoring period).

Yes No

Post Construction Mitigation Plan

Risk Ranking:

Low Moderate High High Unmitigated

Has the Proponent identified appropriate post-construction mitigation to address risk to wildlife or wildlife habitat as per the intent of the Directives?

Yes No